APPENDIX A
NOTICE OF PREPARATION, CEQA INITIAL STUDY, RESPONSE LETTERS, AND RESPONSE LETTER COORDINATION

This appendix presents copies of the following EIR-related items:

- Appendix A.1: Notice of Preparation, including CEQA Initial Study
- Appendix A.2: Notice of Preparation Response Letters
- Appendix A.3: Agency Coordination Regarding Notice of Preparation Response Letters Received

The CEQA Initial Study was prepared by the County of Los Angeles Department of Regional Planning (LACDRP) on April 13, 2009.

The LACDRP issued the EIR Notice of Preparation on April 29, 2009. The NOP included a copy of the CEQA Initial Study.

Copies of the letters received in response to issuance of the Notice of Preparation are presented in Appendix A.2. A summary of the NOP response letters is presented in Table A.2-1; the letters are presented in the order they are listed in Table A.2-1. Additionally, a copy of the May 14, 2009 comments discussed during the scoping meeting is included, as well as the scoping meeting sign-in sheet. No public input forms were submitted to LACDRP during or following the scoping meeting. The comments received on the Notice of Preparation as well as comments received at the public scoping meeting held on May 14, 2009 in Lancaster (Antelope Acres) have been considered in the scope of the EIR.

Appendix A.3 contains documentation of URS correspondence with agencies in response to NOP response letters, as applicable.

APPENDIX A.1
NOTICE OF PREPARATION, INCLUDING CEQA INITIAL STUDY

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Jon Sanabria
Acting Director of Planning

NOTICE OF PREPARATION

DATE: April 29, 2009

PROJECT TITLE: AV SOLAR RANCH ONE PROJECT
COUNTY PROJECT NO. R2009-02239
TRACT MAP NO. TR071035
RCUPT200900026
RENVT200900027

PROJECT APPLICANT(s): AV Solar Ranch 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111
(415) 935-2556

The County of Los Angeles is the lead agency and will prepare an Environmental Impact Report (EIR) for the project identified below. In compliance with Section 15082 of the *State California Environmental Quality Act (CEQA) Guidelines*, the County of Los Angeles is sending this Notice of Preparation (NOP) to each responsible agency, interested parties, and federal agencies involved in approving the project and to trustee agencies responsible for natural resources affected by the project. Within 30 days after receiving the NOP, each agency shall provide the County of Los Angeles with specific written details about the scope and content of the environmental information related to that agency's area of statutory responsibility.

The purpose of this NOP is to solicit the views of your agency as to the scope and content of the environmental information germane to your agency's statutory authority with respect to the proposed project. Your agency may need to use the EIR prepared by our agency when considering approval of applicable permits for the project.

PROJECT LOCATION AND ENVIRONMENTAL SETTING: The proposed AV Solar Ranch One (Project) site is located in the Antelope Valley, in unincorporated Los Angeles County, approximately 20 miles northwest of the City of Lancaster. The Project site can be accessed from Interstate 5 (I-5) or State Route 14 (SR-14) via SR-138 (West Avenue D) from the west and east, respectively. The property consists of approximately 2,100 acres, and is located within Sections 11, 13, 14, and 24 in Township 8 North, Range 15 West, and within Section 18 in Township 8

North, Range 14 West (San Bernardino Base and Meridian). This site occupies an area both north and south of SR-138, and is approximately bounded on the north by West Avenue B-8, on the south by West Avenue E, on the east by 155th Street West and on the west by 180th Street West. Most of the Project site is undeveloped or had been used for agricultural production since the 1940s, and includes a residential ranch area.

A small portion of the site overlaps the existing Joshua Tree Woodland Habitat (JTWH) Significant Ecological Area (SEA) (SEA #60). The area surrounding the Project site is similar to the site itself and generally consists of agricultural or undeveloped land with occasional residential or farm-related structures. Fairmont Butte is near the southeast corner of the property, and the Antelope Valley Poppy Reserve (Poppy Reserve) is located approximately 1.5 miles to the southeast. Santa Monica Mountains Conservancy land is located approximately 0.5 to 1 mile to the southeast, and includes a portion of Fairmont Butte. Arthur B. Ripley Desert Woodland State Park is located approximately 2.5 miles to the southwest, and SEA #60 is also adjacent to the Project on the north and east.

The proposed Project transmission line is approximately 3.5 miles long, and is proposed to run along the right-of-way of 170th Street West to interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the Project site in southern Kern County. The northern portion of the proposed transmission line route (approximately 2 miles) is located in southern Kern County and generally consists of agricultural land within the Willow Springs Specific Plan area. The route is adjacent to the Antelope Valley Water Bank Project area located immediately to the east. An alternate transmission line route is also being analyzed which is proposed to be located within public right of way east from the Project site along West Avenue C for approximately 1.5 miles to the existing Antelope-Magunden transmission line.

PROJECT SUMMARY: The proposed Project consists of a 230-megawatt (MW) solar photovoltaic (PV) facility on 2,100 acres of primarily vacant land located in northern Los Angeles County. Major project components include PV panel arrays, an electrical substation, and a 20,000 square-foot Operations and Maintenance building with associated parking. The Project also includes a 230-kilovolt (kV) transmission line for interconnecting the electrical output of the Project to the regional transmission system. The proposed transmission line is approximately 3.5 miles long, and will interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the Project site in southern Kern County. The Project is currently planned to begin construction in the fourth quarter of 2010 and to be completed by the third quarter of 2013. For further Project details, refer to the Expanded Project Description (see Attachment 1).

ENTITLEMENT REQUIREMENTS AND DISCRETIONARY APPROVALS: The proposed project is an application for: 1) Tentative Tract Map No. 071035 for a reversion to acreage from 147 parcels to 1 parcel, and 2) Conditional Use Permit No. RCUPT200900026 for the construction and operation of a 230-megawatt solar photovoltaic facility in an agricultural

zone; for onsite grading of a maximum of 700,000 cubic yards of soil; and for development within an SEA.

POTENTIAL PROJECT IMPACTS: Because of the requested entitlement requirements identified above, and based on the Initial Study determination, an Environmental Impact Report (EIR) is necessary for the proposed project. Based on a preliminary assessment of potential environmental impacts that may occur as a result of the proposed project (see Attachment 2, Initial Study), the environmental issues to be addressed in the AV Solar Ranch One Project EIR will include at least the following:

Potential Hazards

- Geotechnical
- Flood
- Fire

Potential Impacts to Resources

- Water Quality
- Air Quality
- Biota
- Cultural Resources
- Visual Qualities

Potential Impacts to Services

- Traffic/Access
- Fire/Sheriff
- Utilities

Potential Other Impacts

- General (potential change of general area character)
- Environmental Safety
- Land Use
- Population/Housing/Employment/Recreation (potential growth inducing effects)

To provide a complete record of the County's environmental decision-making, environmental issues that do not rise to the level of significant impacts will be addressed in the EIR in a separate section entitled "Impacts Found to be Less Than Significant."

NOTICE OF PREPARATION REVIEW AND COMMENTS:

The review period for the Notice of Preparation will be from **May 1, 2009 to June 1, 2009**. Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than **June 1, 2009.** Please direct all written comments to the following address. In your written response, please include the name of a contact person in your agency.

Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012
Tel: (213) 974.6461
Fax: (213) 626.0434
e-mail: ctran@planning.lacounty.gov

SCOPING MEETING: To assist in local participation, a Scoping Meeting will be held to present the proposed project and to solicit suggestions from the public and responsible agencies on the content of the Draft EIR. The Scoping Meeting will be held at Westside Community Church located at 47707 90th Street West, Lancaster, California (in Antelope Acres), on May 14, 2009 from 7:00 p.m. to 9:00 p.m.

Attachments:

Expanded Project Description (Attachment 1)
Los Angeles County Initial Study (Attachment 2)
500-foot Radius Land Use Map (Attachment 3)

ATTACHMENT 1

AV SOLAR RANCH ONE
EXPANDED PROJECT DESCRIPTION

SECTION 1.0
INTRODUCTION

The proposed Project consists of a 230-megawatt (MW) alternating current (AC) solar photovoltaic (PV) facility on 2,100 acres of primarily vacant land located in northern Los Angeles County along State Route 138 (SR-138), also designated as West Avenue D (see Figures 1 and 2). The Project includes a 230-kilovolt (kV) transmission line for interconnecting the electrical output of the Project to the regional transmission system. The proposed transmission line is approximately 3.5 miles long, and will interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the Project site in southern Kern County. An alternate transmission line route is also being analyzed which is proposed to be located within public right of way east from the Project site along West Avenue C for approximately 1.5 miles to the existing Antelope-Magunden transmission line. The Project is currently planned to begin construction in the fourth quarter of 2010 and to be completed by the third quarter of 2013.

The Project is designed to meet the increasing demand for clean, renewable electrical power. The United States has a greater solar energy resource potential than any other industrialized nation. The multiple benefits associated with developing this resource have been recognized repeatedly by both federal and state policy-makers. Development of solar resources reduces reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios, contributes to the reduction of greenhouse gas emissions, and generates "green" jobs. The Project will contribute much needed on-peak power to the electrical grid in California.

In addition, the Project will help California meet its statutory and regulatory goal of increasing renewable power generation. California has enacted legislation mandating that certain load serving entities (LSEs) procure enough renewable power to ensure that 20 percent of their retail sales are served by renewable resources by 2010, and is currently considering legislation (SB 14; AB 64) that would increase the goal to 33 percent renewables by 2020. The California Air Resources Board has already adopted this requirement as part of its implementation of AB 32, and the Governor has directed State agencies to implement policies requiring LSEs to achieve 33 percent renewables by 2020 (Executive Order S-14-08, November 17, 2008). The Project is an eligible renewable resource within the meaning of the California Public Resources Code, and will help the State meet its current and planned goals for increasing renewable generation.

SECTION 2.0
PROJECT DESCRIPTION

The sections below provide a comprehensive description of the Project, as follows: 1) Section 2.1 provides a description of the Project location, 2) Section 2.2 describes the Project facilities, including the major equipment and site arrangement, electrical systems, and plant auxiliary systems, 3) Section 2.3 describes pre-construction activities, Project fabrication and construction activities, schedule, and sequencing; this section also provides a description of erosion control measures, and revegetation/restoration, and 4) Section 2.4 describes facility operations and maintenance (O&M).

2.1 PROJECT LOCATION

The Project is located in the Antelope Valley area in unincorporated Los Angeles County, approximately 20 miles northwest of the City of Lancaster as shown in Figures 1 and 2. The Project site comprises approximately 2,100-acres of undeveloped land previously used for agricultural production.

2.2 PROJECT FACILITIES

The proposed Project consists of a 230-MW solar PV facility and a 3.5-mile-long 230-kV transmission line. The Project will utilize crystalline silicon, or possibly thin film, PV technology on single-axis trackers, or fixed tilt supports. The technology described in this application is based on SunPower T-20 and/or T-0 trackers and associated equipment. Actual equipment will be similar to this technology, and will be selected based on cost and market availability of the equipment. On T-20 trackers, the PV modules are mounted to be south-facing and tilted at 15 degrees from horizontal. PV modules on the T-0 trackers are mounted horizontal (not tilted to the south). The tracking units are arranged into east-west oriented rows throughout the site and are powered by a drive motor to track the east-west path of the sun on a single axis throughout the day. This tracking technology generates 30 percent more energy than a traditional fixed-tilt system. The tracking systems will utilize concrete ballasts, embedded foundations, or other suitable structures to support the trackers. Fixed tilt panels would be constructed in a similar arrangement and with similar foundations. The fixed tilt panels would be positioned to receive optimal solar energy, but the panels do not track the path of the sun.

The proposed facility layout for the Project is included on Figure 3, and shows the location of the tracker arrays, substation location, Operations and Maintenance (O&M) building, power lines, and site drainages.

2.2.1 Major Equipment and Site Arrangement

Photovoltaic panels will produce all of the electricity generated by the Project facilities. The major equipment includes: 1) PV solar panels, 2) single-axis trackers, or fixed-tilt supports, 3) inverters, and 4) three phase pad mounted transformers and circuit breakers.

2.2.2 Electrical Systems

2.2.2.1 Transmission Interconnection

Power generated by the Project will be delivered from the on-site substation to the electrical grid through interconnection along the existing northwest to southeast trending transmission corridor located east of the site. Two transmission line routes are being considered in this application, as follows (see Figure 2): 1) the 3.5-mile-long proposed route will follow the road right-of-way along 170th Street West in a northerly direction to SCE's planned Whirlwind Substation, and 2) the 1.5-mile-long alternate route follows the road right-of-way along West Avenue C, east to the existing 230-kV Antelope-Magunden transmission line. The actual transmission line interconnection point for the Project will be determined by the outcome of an interconnection study carried out by the California Independent System Operator.

The proposed transmission line will consist of a single-circuit, 230-kV line that will be made of non-reflective material and will be supported on approximately 108- to 125-foot-tall steel poles of a color that will minimize the visual impact. The transmission poles will be approximately 4 to 6 feet in diameter (at the base, tapering upward) and will be located approximately 700 feet apart.

2.2.2.2 Electrical System for Plant Auxiliaries

During daylight hours, power for plant auxiliaries will be provided by the Project's electrical generation. During non-daylight hours, the Project will require small amounts of power from an external source for the O&M building, to keep transformers warm during non-daylight hours, to realign the trackers to the east at night so that they are properly oriented to catch the morning sun the following day, and for plant lighting and security. This power will be provided by either back feed from the electrical grid or from a local electricity provider. An emergency diesel powered firewater pump may be required to provide power for fire protection in the event that power from the electrical grid is unavailable.

2.2.3 Plant Auxiliaries Process Description

The following subsections describe the various power plant auxiliary systems associated with the Project.

2.2.3.1 Water

Approximately 36 acre-feet per year of water will be required during construction to support concrete manufacturing, dust control, panel washing, and sanitary use. Once the facility is fully operational, approximately 12 acre-feet per year of water will be required by the facility for domestic use and process water. Most of this water use will be for solar panel cleaning, that is expected to be required 1 or 2 times per year. A 10,000 gallon process water storage tank will be included on the site. If an emergency firewater supply is required, the tank will be enlarged to satisfy both uses. The water storage tank and emergency firewater pump (as necessary) will be located adjacent to the O&M building as shown on Figures 3 and 4.

The primary water supply for the Project will be from on-site wells (see Figure 3). Currently, 2 operational wells exist on the Project site (see Figure 3): a domestic well that supplies the existing ranch houses, and an agricultural well. According to the previous land owner, the agriculture well has a pumping yield of 700 to 800 gallons per minute. The Project will utilize the existing wells and/or one or more new wells that may be constructed.

2.2.3.2 Fire Protection

If it is determined that an on-site firewater supply is necessary, the Project's firewater needs will be supplied by maintaining a minimum required water level in the Project process water storage tank. In this case, the water tank will be sized appropriately to accommodate process water and firewater needs. Firewater will be delivered by an electric pump, and a diesel-fueled backup pump may be installed so that firewater is available during power outages. Fire protection pump flow rates will be based on applicable requirements.

2.2.3.3 Lighting System

Project lighting will be primarily in the area of the O&M building. Lighting will be designed to provide the minimum illumination needed to achieve safety and security objectives and will be downward facing and shielded to focus illumination on the desired areas only. There will be no lighting in the solar field, so light trespass on the surrounding properties will be minimal. If lighting at individual solar panels or other equipment is needed for night maintenance, portable lighting will be used.

2.2.3.4 Buildings

The Project will include an O&M building adjacent to the solar field (see Figure 3). The design and construction of this building will be consistent with County building standards. As indicated on Figure 4, the building will be approximately 100 feet wide, 200 feet long, and 27.5 feet high, and will be surrounded by a parking area with 36 parking spaces. The O&M building will also include a storage and equipment warehouse.

2.2.3.5 Substation

If the Project is able to connect to SCE's planned Whirlwind Substation, the proposed Project substation will be located along the west side of 170th Street West as shown on Figure 3. If the alternate interconnection point (the Antelope-Magunden transmission line to the east) is selected, the substation will be located in the northeastern portion of the site (see Figure 3). The substation area will be approximately 350 feet by 350 feet, and the tallest equipment within the substation will be 60 feet in height.

2.2.3.6 Roads, Fencing, and Security

Approximately 54,076 square feet of the overall plant site will be paved, including the site access road, parking area, and portions of the area around the O&M building (see Figure 4). As shown on Figure 3, improved (earthen or gravel) roads will be located generally in a north-south orientation, approximately 1,200 feet apart to provide access to the solar equipment (drive motors, panels, inverter, and transformers). Existing low-lying vegetation will remain undisturbed, to the extent feasible, to minimize dust. As necessary, dust suppression, such as the use of dust palliatives, will be implemented on unprotected soils. Palliatives will be selected based on environmental compatibility.

The solar field and support facilities perimeter will be secured with 7-foot chain link security fencing with 1 foot of 3-strand barbed wire on top for a total height of 8 feet. Controlled access gates will be located at the site entrance. Additionally, an 8-foot security fence will be installed on either side of the drainage that traverses the central portion of the site (see below).

2.2.3.7 Site Drainage and Earthwork

Most of the Project site will be drained by sheet flow to on- and off-site drainages. Areas of the facility that may release contaminants, such as the O&M building and delivery areas, will be provided with storm water containment designed to accommodate runoff from the 25-year storm event, as appropriate.

The site is traversed by three primary ephemeral drainages (Drainages A, B and C), as may be seen on Figure 3. A fourth ephemeral drainage is located at the northeastern property boundary and only a small portion of the southern bank of the drainage is on Project site. This drainage and Drainage C will be avoided and remain unmodified; however:

- Drainage A, which traverses the site from the southwest to the northeast (see Figure 3), will require channel improvements to: 1) manage storm water from the 100-year flood event, 2) control and minimize erosion and off-site sedimentation transport, and 3) preserve off-site flow characteristics.

- Drainage B, located immediately south of Drainage A, may be developed by the construction of the solar array in this area.

The drainage improvements will extend from the intersection of SR-138 and 170th Street West to the northeast corner of the Project site. The improved drainage will follow the existing floodplain in a northeasterly direction as shown on Figure 5, and will end approximately 500 feet from the northeast corner of the property. The channel will be trapezoidal with a bottom width of approximately 180 feet and a top width of approximately 250 feet (between the top of banks). Drainage side slopes will be approximately 3 horizontal to 1 vertical (refer to Figure 5 for preliminary drainage design details). The drainage banks and bottom will be earthen; however, periodic rock cross vane weir structures may be installed in the drainage bottom to decrease flow velocity, to dissipate its energy, and also to facilitate habitat development and wildlife movement along the corridor. The drainage design includes 2 "Arizona Crossings" to allow for occasional maintenance vehicle passage, if required.

2.3 FABRICATION AND CONSTRUCTION

2.3.1 Preconstruction Activities

Prior to construction, a Mitigation Monitoring and Reporting Plan (MMRP) will be prepared in accordance with the California Environmental Quality Act (CEQA) requirements that will set forth measures to protect the environment, as identified by CEQA-related documents. The MMRP will be the guidance document for ensuring that all mitigation measures identified during the permitting processes are carried out.

2.3.2 Assembly and Construction

Assembly of the tracker units and construction of the solar array will occur concurrently. The trackers will be assembled on-site in two temporary covered assembly areas, each approximately 40,000 square feet and 35 feet in height (see Figure 4). The assembly areas will be located adjacent to the permanent O&M building (see Figure 4). In addition, multiple temporary staging and laydown areas will be located throughout the Project site to support final assembly and installation (see Figure 6). The staging areas will be approximately 6 acres each and the laydown areas will be approximately 0.75 acres each. Approximately 15 staging areas and 43 laydown areas will be required throughout the Project construction period.

During peak construction, an estimated 53 truck trips per day will be required to supply concrete, construction materials, Project components, and equipment to the site. If the construction rate increases as described below in Section 2.3.3, this estimate would increase commensurately. To provide concrete for PV module foundations and other uses, either a concrete batch plant will be located on-site or an off-site ready mix plant will be used. In

either case, a similar number of trucks would be required to supply either concrete or concrete raw materials.

Construction of the proposed 230-kV transmission line will occur concurrent with the solar array construction and tracker unit assembly. Transmission pole holes will be approximately 6 feet in diameter, 20 to 30 feet deep, and will be augured wherever feasible. Erection of the poles will occur along the road right-of-way, and flagmen will be used as required during construction to ensure traffic safety and uninterrupted flow.

It is expected that an area of approximately 100 feet by 150 feet will be required at each pole location for use as temporary laydown or as a staging area. In general, little to no grading is expected to be required for these areas, and disturbance to sensitive vegetation will be minimized or avoided. In addition, it is likely that three conductor-stringing sites of approximately 50 feet by 200 feet will be required: one at each end of the transmission line route, and one near the mid-point.

2.3.3 Construction Schedule

Construction of the Project, from site preparation and grading to commercial operation, is planned to take place from the fourth quarter of 2010 to the third quarter of 2013. This schedule is conceptual and subject to change, including potential acceleration, depending on conditions within the regional power markets.

The Project construction contractor will mobilize and develop temporary construction facilities, staging, and laydown areas within the Project site. The on-site assembly and construction workforce is expected to reach a peak of approximately 285 workers, under the expected construction schedule, or potentially up to 490 workers under an accelerated schedule. Construction will generally occur between 7 a.m. and 3 p.m., Monday through Friday. Additional hours may be necessary to make up schedule deficiencies, or to complete critical construction activities.

Construction activities will be sequenced over the construction period so that only a portion of the Project site will be worked on at any given time. It is currently expected that construction will begin north of SR-138 and transition to the south side of SR-138 later in the construction period.

2.3.4 Erosion and Sediment Control Measures

The following water erosion and dust-control measures will be implemented as required during Project construction. Vegetation will be mulched or composted on-site to assist in erosion control and limit waste disposal.

- Soil stabilization measures will be used to prevent soil erosion caused by storm water runoff. The Project will apply for coverage under the State's Construction General Permit for storm water discharges from construction activities and will prepare a Storm Water Pollution Prevention Plan (SWPPP) that will include implementation of Best Management Practices (BMPs) erosion-control measures to control storm water runoff. Site-specific BMPs will be designed by the contractor in compliance with regulations and permit conditions.

- The Project will implement the following practices as required for wind erosion control: 1) minimize vegetation removal and grading to the extent practicable, 2) apply water to disturbed areas of the Project site to control dust and maintain optimum moisture levels as needed, 3) apply dust control to haul roads as needed to adequately control wind erosion, 4) suspend excavation and grading during periods of high winds when dust cannot be reasonably controlled, and 5)cover all trucks hauling soil and other loose material or maintain at least 2 feet of freeboard.

2.3.5 Revegetation and Restoration

A plan for the revegetation and restoration of disturbed areas of the Project site will be prepared prior to construction. The revegetation plan will be implemented during and immediately after construction for the areas that are temporarily disturbed.

2.4 OPERATION AND MAINTENANCE

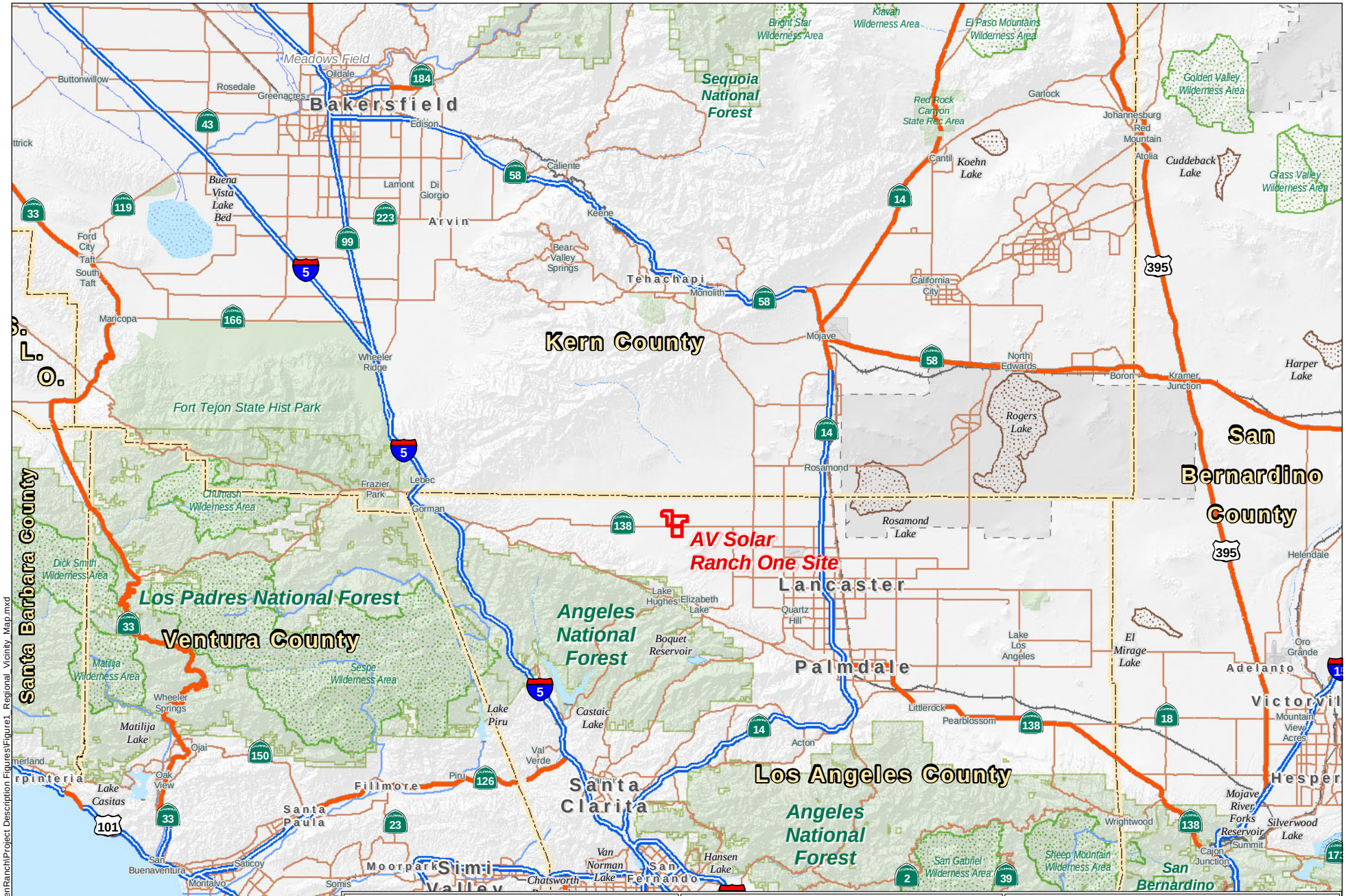
The Project will operate during daylight hours only and will require 16 fulltime personnel for operation, maintenance and security. The Project site will be staffed 24 hours per day, seven days per week. This staff will include full time security, and regular security patrols will be conducted throughout the site.

The Project site will be secured with 8-foot high fencing. Lighting will be provided at the O&M building, and the main plant access road. Lighting will be directed downward and shielded as required by County and local ordinance to minimize light trespass.

During operation, approximately 12 acre-feet per year of water will be required for domestic use and process water. Process water uses include washing of solar panels (approximately twice per year), and maintenance uses. It is expected that Project water will be supplied from onsite wells; currently 2 operational wells exist onsite.

No heavy equipment will be used during normal Project operation. Operation and maintenance vehicles will include trucks (pickups, flatbeds, dump trucks), forklifts, and loaders for routine and unscheduled maintenance, and water trucks for solar panel washing. Large heavy-haul transport equipment may be brought to the site infrequently for equipment repair or replacement.

The Project will require small amounts of electricity from an external supply during non-daylight hours. It is expected that this power will be provided by either backfeed from the electrical grid or from a local electricity provider.


Kern County
San Bernardino County
Santa Barbara County
Los Angeles County
Ventura County
AV Solar Ranch One Site
Bakersfield
Lancaster
Palmdale
Santa Clarita
Oxnard
Simi Valley
Victorville
Hesperia
Adelanto
Tehachapi
Arvin
Mojave
Rosamond
Sequoia National Forest
Los Padres National Forest
Angeles National Forest
Angeles National Forest
Fort Tejon State Hist Park
Meadows Field
Buena Vista Lake Bed
Koehn Lake
Cuddeback Lake
Rogers Lake
Rosamond Lake
Castaic Lake
Boquet Reservoir
Lake Piru
Matilija Lake
Lake Casitas
Silverwood Lake
Mojave River Forks Reservoir
Harper Lake
El Mirage Lake
Lake Los Angeles
Hansen Lake
Van Norman Lake
Chumash Wilderness Area
Dick Smith Wilderness Area
Matilija Wilderness Area
Sespe Wilderness Area
Bright Star Wilderness Area
Kiavah Wilderness Area
El Paso Mountains Wilderness Area
Golden Valley Wilderness Area
Grass Valley Wilderness Area
Red Rock Canyon State Rec Area
San Gabriel Wilderness Area
Sheep Mountain Wilderness Area
Point Mugu
Port Hueneme
Legend
Project Site Boundary
1:823,680
1 inch = 13 miles
0 2 4 6 8 10 12 14 16 Mile
0 33,500 67,000 134,000 Feet
Coordinate System: North American Datum 83 Universal Trans Mercator (UTM) Zone 11 North
March, 2009
Source: [1] ESRI StreetMap USA (2006). [2] Hillshade, 30 Meter Resolution (based on the National Elevation Dataset (NED) - U.S. Geological Survey, Teale Data Center GIS Solutions Group, USFS Region 5.
AV Solar Ranch One
Figure 1. Regional Vicinity Map
NextLight Renewable Power LLC
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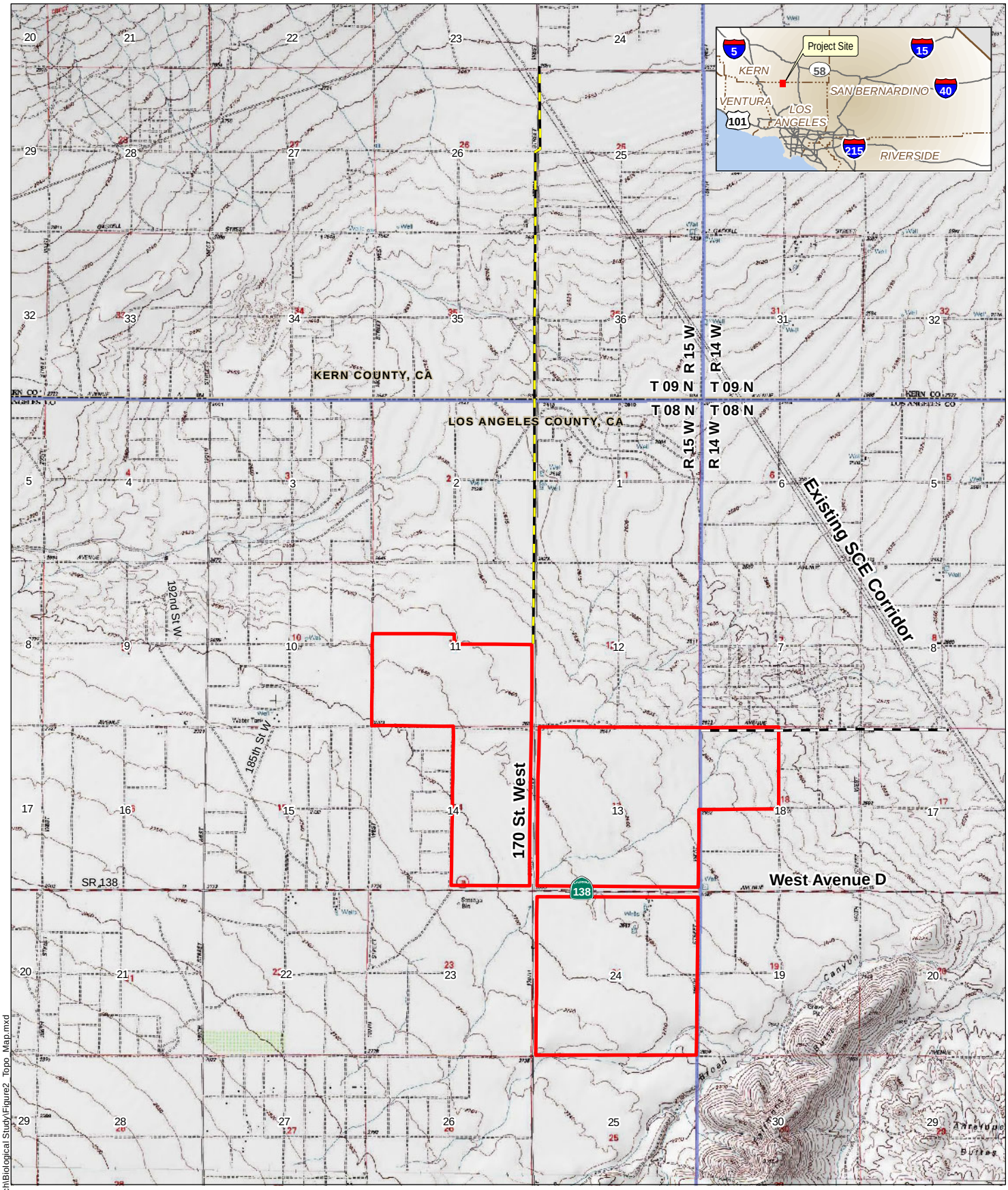

Legend

- Project Site Boundary
- Proposed Transmission Line Route
- Alternate Transmission Line Route
- Township Range Boundary
- County Line

1:50,688

1 inch = 0.8 mile

0 0.25 0.5 1 Mile

0 2,000 4,000 8,000 Feet

Coordinate System: North American Datum 83 Universal Trans Mercator (UTM) Zone 11 North

Source: [1] U.S.G.S 7.5' topographic quadrangles (2005), [2] ESRI StreetMap USA (2007).

March, 2009

AV Solar Ranch One

Figure 2. Site Location Topographic Map

NextLight Renewable Power LLC

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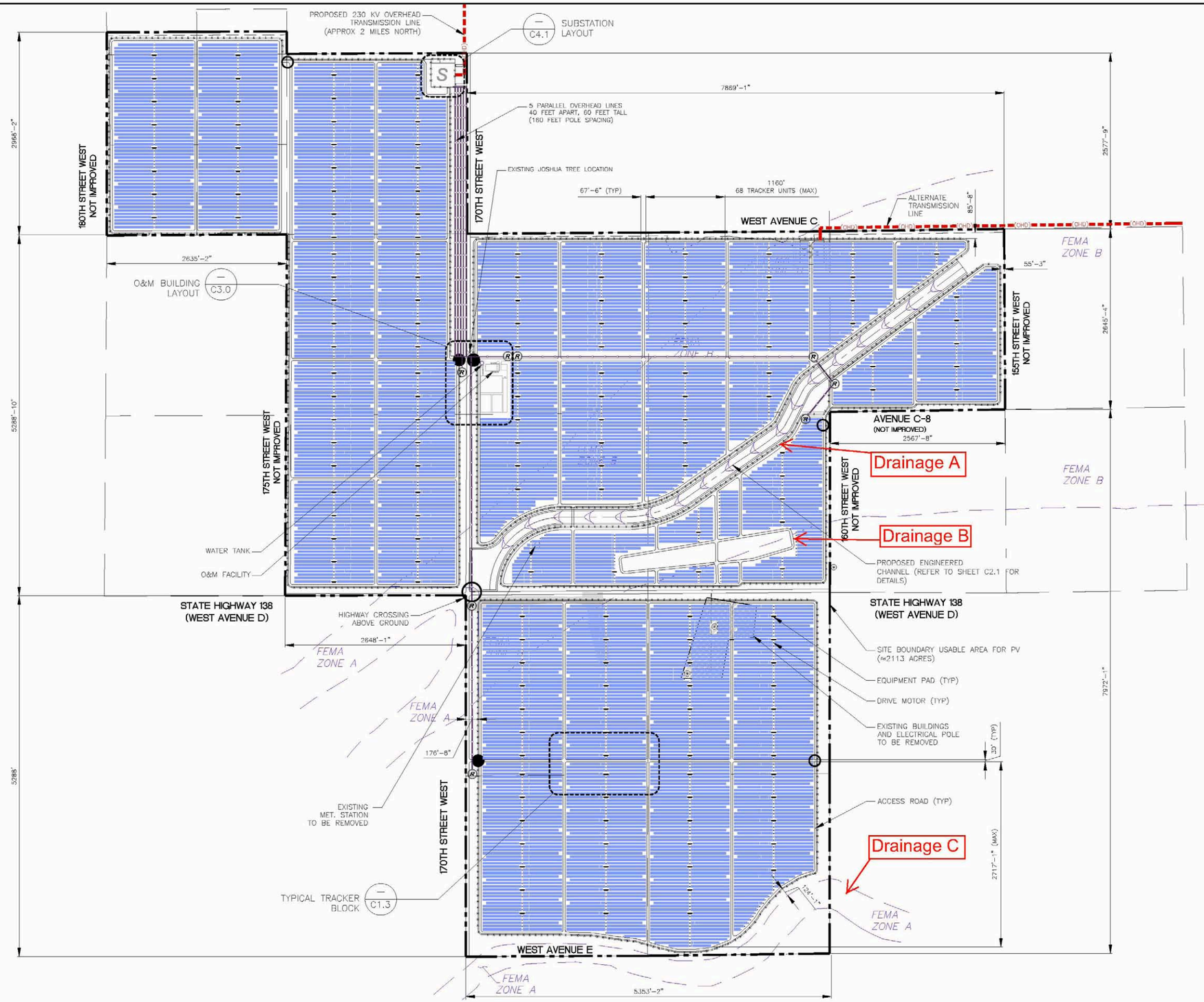
T/Ladd/NextLight/209-019



DISTANCE FROM	TO ARRAY		TO FENCE	
	REQUIRED(MIN)	PROVIDED(MIN)	REQUIRED(MIN)	PROVIDED(MIN)
HWY 138 (NORTH)	NA	105 FT	NA	68 FT
HWY 138 (SOUTH)	NA	134 FT	NA	57 FT
160TH NORTH OF HWY 138 (WEST)	NA	96 FT	NA	51 FT
160TH SOUTH OF HWY 138 (WEST)	NA	223 FT	NA	175 FT
170TH NORTH OF HWY 138 (EAST)	NA	200 FT	NA	44 FT
170TH NORTH OF HWY 138 (WEST)	NA	109 FT	NA	40 FT
170TH SOUTH OF HWY 138 (EAST)	NA	220 FT	NA	126 FT
WEST AVE E (NORTH)	NA	119 FT	NA	40 FT
WEST AVE C (SOUTH)	NA	130 FT	NA	71 FT
180TH (WEST)	NA	114 FT	NA	30 FT
175TH (EAST)	NA	110 FT	NA	30 FT
155TH (WEST)	NA	119 FT	NA	67 FT

* – SETBACK DISTANCES ARE MEASURED FROM THE PROPERTY LINE OR EDGE OF ROW AS APPLICABLE

LEGEND

- ESTIMATED 100-YEAR FLOOD PLAIN PER PATCH BASE MAP HYDROLOGY–UP TO 18" INUNDATION
- FEMA FLOOD PLAIN. THIS SURVEY IS BASED ON GRID COORDINATES DERIVED FROM A GPS SURVEY PROVIDED BY **WESTWOOD PROFESSIONAL SERVICES**
- FENCE
- 34.5 KV OVERHEAD LINE 160' POLE SPACING
- (OHD) 230 KV OVERHEAD LINE
- EXISTING WATER WELL TO REMAIN
- (R) ELECTRICAL RISER
- MAIN PROJECT ENTRY
- SECONDARY PROJECT ENTRY
- S SUBSTATION
- Ss ALTERNATE SUBSTATION LOCATION

N

0 500' 1000' 2000'

NOTES:

1. THE PROPOSED ARRAY LAYOUT SHOWN IS SUBJECT TO FINAL DESIGN & VERIFICATION OF ACTUAL SITE CONDITIONS.
2. ZONE B AREA BETWEEN LIMITS OF 100 YEAR FLOOD AND 500 YEAR FLOOD; OR CERTAIN AREAS SUBJECT TO 100 YEAR FLOODING WITH AVERAGE DEPTHS LESS THAN (1) FOOT OR WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN ONE SQUARE MILE; OR AREAS PROTECTED BY LEVEES FROM THE BASE FLOOD
3. ZONE A AREAS WITH A 1% ANNUAL CHANCE OF FLOODING AND A 26% CHANCE OF FLOODING OVER THE LIFE OF A 30-YEAR MORTGAGE. BECAUSE DETAILED ANALYSES ARE NOT PERFORMED FOR SUCH AREAS; NO DEPTHS OR BASE FLOOD ELEVATIONS ARE SHOWN WITHIN THESE ZONES.
4. DECLINATION AT THE INTERSECTION OF HWY 138 & 170TH W. STREET

REV	DATE	DESCRIPTION	DRW'N BY	CHK BY	ENG'R	PROJECT ENG'R	APP'D BY

SUNPOWER
1414 HARBOUR WAY SOUTH
RICHMOND, CA 94804 USA
(510) 540 - 0550

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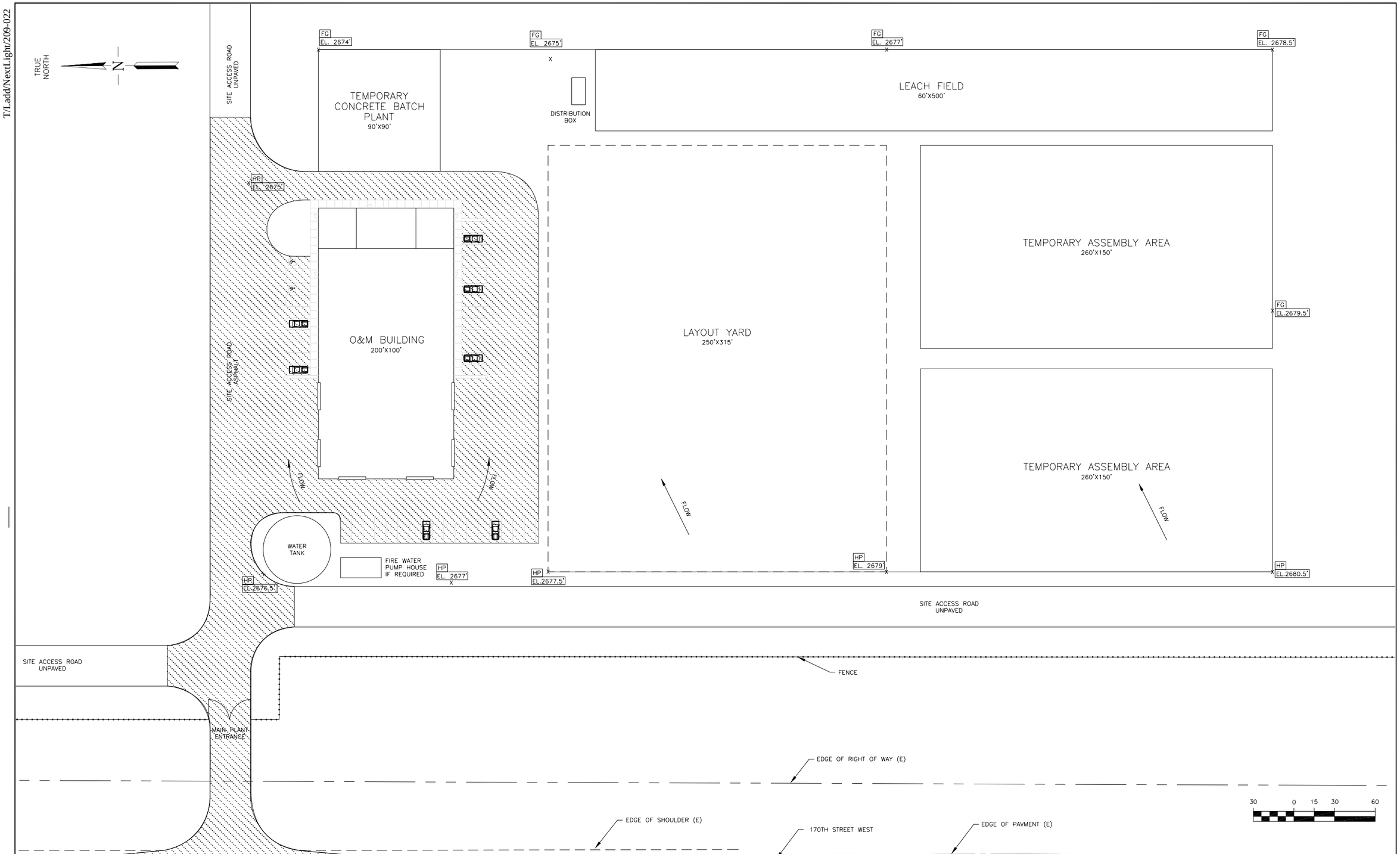
NextLight Renewable Power, LLC

AV Solar Ranch One

Figure 3. Site Layout

SCALE:	1"=700' @ 24"x36"
JOB NO:	003172
DATE:	03-18-09
DRAWN BY:	ZZ
CHECKED BY:	DA
DRAWING NUMBER	1.0
SHEET NUMBER	**C1.0**
REV	

T/Ladd/NextLight/209-022



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REV	DATE	DESCRIPTION	DRW'N BY	CH'K BY	ENG'R	PROJECT ENG'R	APPR'D BY
F	03/04/09	REVISED PER NEXTLIGHT COMMENTS	CM				
E	02/27/09	REVISED NORTH ARROW	CM				
D	02/20/09	REVISED ACCESS ROAD NORTH OF THE O&M BUILDING	CM				
C	02/17/09	REVISED NORTH ARROW	CM				
B	02/16/09	ADDED DRAWING SCALE BAR	CM				
A	02/14/09	PRELIMINARY - ISSUED FOR CUP	CM				

PATCH SERVICES

CALIFORNIA * ENGINEERING * TEXAS

333 SUNSET AVE.
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SUISUN CITY, CA 94585
PHONE: 707-425-4949
FAX: 707-425-4553

1701 NORTH GREENVILLE AVE.
SUITE: 800
RICHARDSON, TX 75081
PHONE: 972-231-4060
FAX: 972-231-4059

NextLight Renewable Power, LLC

AV Solar Ranch One

Figure 4. Operations & Maintenance Facility Area

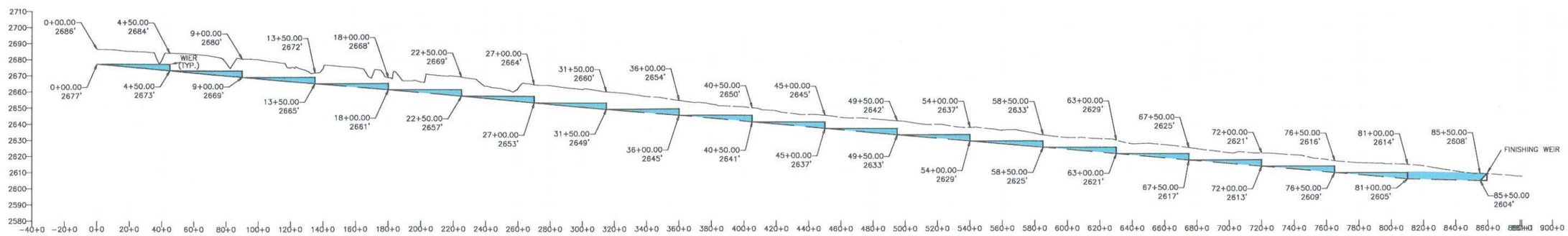
SCALE:	1"=30'-0" at 24"x 36"
JOB NO:	5408
DATE:	02/13/09
DRAWN BY:	CM
CHECKED BY:	

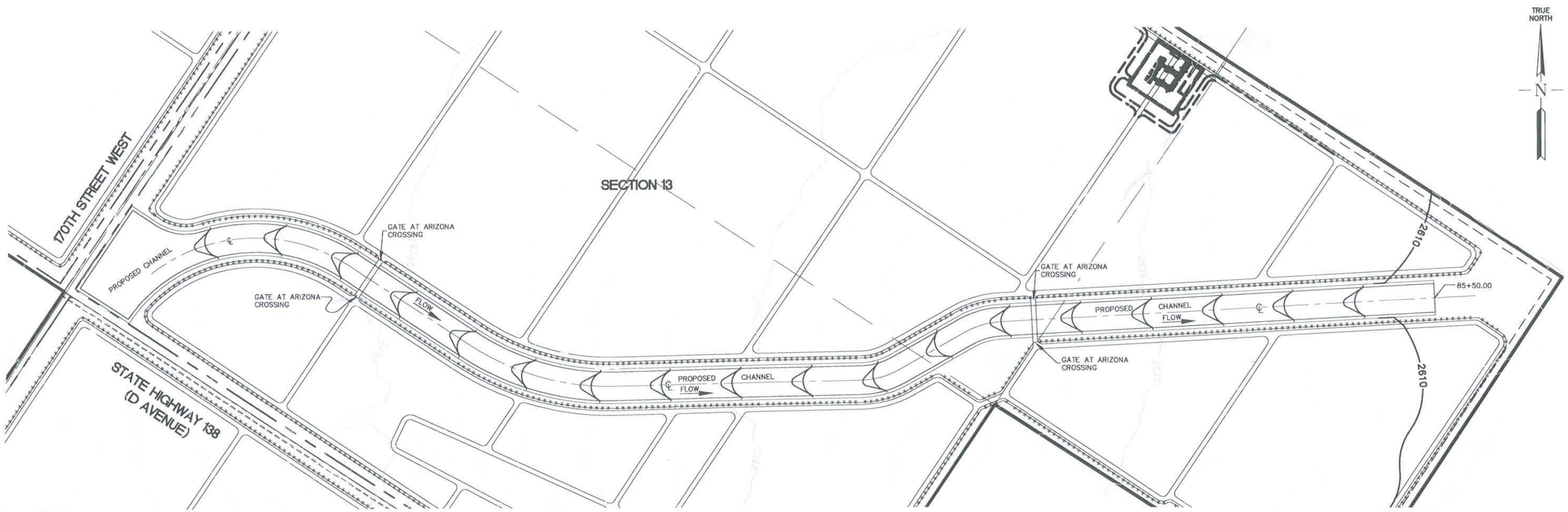
DRAWING NUMBER	SHEET NUMBER	REV
D-5408 -2025	C3.6	F

T/Ladd/NextLight/209-024

DEVELOPED PROFILE

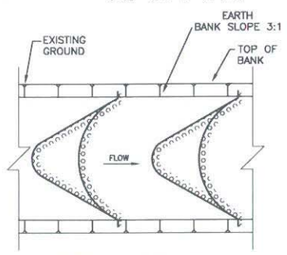
PROFILE VSCALE 1" = 30' AT 24" X 36"



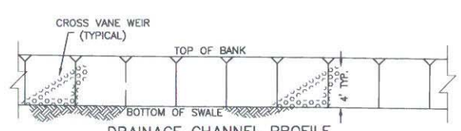


NOTES:

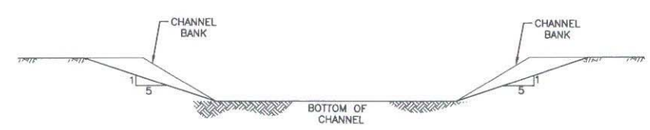
1. SITE LOCATION, BASED ON 1983 NAD(2007) CALIFORNIA STATE PLANE ZONE V IN US SURVEY FEET, VERTICAL IS 1988 NAVD IN US SURVEY FEET, HELD POINT NGS 213 133, CHECKED TO NGS OBAN AND NGS BEND, ELEVATION IS BAD ON NGS BEND, CONFIRMED GOOD 3D WITH CORS STATION BALDY MESA
2. THIS SURVEY AND EXISTING AERIAL TOPOGRAPHY IS BASED ON GRID COORDINATES DERIVED FROM A GPS SURVEY PROVIDED BY **WESTWOOD PROFESSIONAL SERVICES**, EDEN PRAIRIE,MINNESOTA. THE GRID TO GROUND SCALE FACTOR IS 1.000201170.



DRAINAGE CHANNEL
(TYPICAL)
N.T.S.



DRAINAGE CHANNEL PROFILE
(TYPICAL)
N.T.S.



ARIZONA CROSSING
(TYPICAL)
N.T.S.

300 0 150 300

LEGEND

- CROSS VANE WEIR (TYPICAL)
- 2610 — FINISH GRADE CONTOUR ELEVATION
- -X—X—X—X- FENCE
- ORIGINAL GROUND (AERIAL SURVEY)
- PROPOSED BOTTOM OF CHANNEL
- APPROXIMATE WATER LEVELS
- ROCK/BOULDERS USED FOR VANE WEIR CONSTRUCTION

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REV	DATE	DESCRIPTION	DRW'N BY	CH'K BY	ENG'R	PROJECT ENG'R	APPR'D BY
△							
△							
△							
3	03/04/09	REVISED NEXTLIGHT COMMENTS	EAL				
2	02/19/09	ADDED GRID NORTH DECLINATION AND REVISED NOTE 2	EAL				
1	02/18/09	PRELIMINARY – ISSUED FOR C.U.P.	EAL				

PATCH SERVICES
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SUISUN CITY, CA 94585
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FAX: 707-425-4553
1701 NORTH GREENVILLE AVE.
SUITE: 800
RICHARDSON, TX 75081
PHONE: 972-231-4060
FAX: 972-231-4059

NextLight Renewable Power, LLC

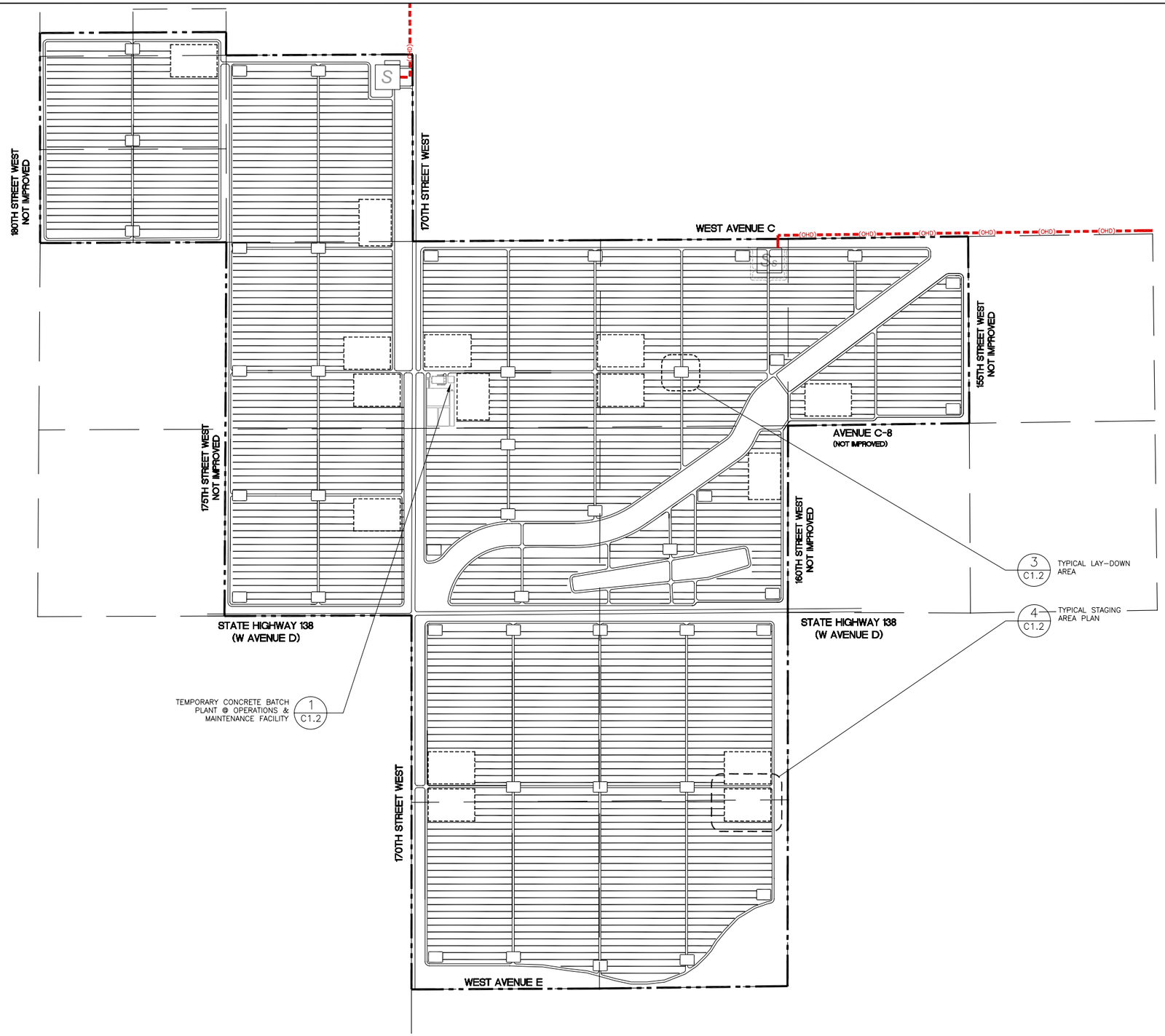
AV Solar Ranch One

Figure 5. Proposed Channel Improvements

SCALE:	1" = 300'-0" AT 24" X 36"
JOB NO:	5408
DATE:	02-16-09
DRAWN BY:	EAL
CHECKED BY:	

DRAWING NUMBER	SHEET NUMBER	REV
D-5408 -2012	C2.1	1

T/Ladd/NextLight/209-023



LEGEND

- TEMPORARY STAGING AREAS
- TEMPORARY LAY-DOWN AREAS
- TEMPORARY CONSTRUCTION ACCESS
- ACCESS ROADS

TEMPORARY STAGING AREAS	SIZE (ACRES) APPROX.
15 TOTAL x 6 (ACRES)	90

TEMPORARY LAY-DOWN AREAS	SIZE (ACRES) APPROX.
43 TOTAL x .75 (ACRES)	32.25

NOTE

TEMPORARY LAY-DOWN AREAS AND TEMPORARY STAGING AREAS ARE AREAS OF TEMPORARY DISTURBANCE. AFTER EACH PHASE IS COMPLETED, THESE AREAS WILL BE REVEGETATED AND INFILLED WITH TRACKERS. THE DURATION OF EACH PHASE IS EXPECTED TO BE LESS THAN 12 MONTHS.

N

0 500' 1000' 2000'

REV	DATE	DESCRIPTION	DRW'N BY	CH'K BY	ENG'R	PROJECT ENG'R	APPR'D BY
△							
△							
△							
△							
△							
△							

SUNPOWER
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RICHMOND, CA 94804 USA
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NextLight Renewable Power, LLC

AV Solar Ranch One

Figure 6. Temporary Construction Areas

SCALE:	1"=700' @ 24"x36"		
JOB NO:	003172		
DATE:	03-05-09		
DRAWN BY:	ZZ		
CHECKED BY:	DA		
DRAWING NUMBER		SHEET NUMBER	REV
2.0		**C1.1**	△

ATTACHMENT 2

AV SOLAR RANCH ONE
INITIAL STUDY

STAFF USE ONLY

PROJECT NUMBER: *R2009-02239*
CASES: *TR 071035*
RENVT200900027
RCUPT200900026

* * * * INITIAL STUDY * * * *
COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING

GENERAL INFORMATION

I.A. Map Date: *March 18, 2009* Staff Member: *Christina Tran / Anthony Curzi*

Thomas Guide: *Page F (no map page) (2008)* USGS Quad: *Fairmont Butte*

Location: *Project site is located on parcels north and south of SR-138 between 155th Street West to the east and 180th Street West to the west, between West Avenue B-8 to the north, and by West Avenue E to the south*

Description of Project: *Application for Tentative Tract Map TR071035 for a reversion to acreage from 147 parcels to 1 parcel. Application also includes a CUP request for the construction and operation of a 230 megawatt (MW) photovoltaic (PV) solar facility in an agricultural zone; for onsite grading of a maximum of 700,000 cubic yards of soil; and for development within an SEA. The facility consists of a PV panel array system mounted on tracker units or fixed tilt support structures; associated electrical equipment; a 3 acre onsite substation; a 20,000 square foot operations and maintenance building; employee parking area; eight foot high perimeter fencing; and associated access roads. The project also includes a 230 Kilovolt (kV) transmission line that is approximately 3.5 miles long and interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the project site in southern Kern County. An alternate 1.5-mile-long transmission line would interconnect the project to SCE's existing 230 kV Antelope-Magunden transmission line east of the site. Approximately 12 acre feet of water will be required annually for domestic use and to process water uses which include washing solar panels approximately twice per year and maintenance uses. Water will be provided by onsite water wells and sewage disposal will be handled by the proposed septic and leach field system.*

Gross Acres: *2,100 acres*

Environmental Setting: *Project site is located in the Antelope Valley and within the Joshua Tree Woodland Habitat (JTWH) Significant Ecological Area (SEA). The majority of the project site had been used for agricultural production since 1940; however, farming activities ceased by 2004. The remainder of the project site is undeveloped with the exception of the residential ranch development on an approximately 27-acre area consisting of two residences, a mobile home, and associated storage and equipment structures that will all be demolished. The site also contains an exploratory oil well that has been plugged and abandoned. The project site is surrounded by undeveloped and agricultural land. Three primary ephemeral drainages traverse the project site and a small portion of a fourth ephemeral drainage is located within the northeastern property boundary.*

Zoning: *A-2-5 (Heavy Agriculture, minimum five acre lot) and A-1-2 (Light Agriculture, minimum two acre lot)*

General Plan: *N1 (Non-Urban 1)*

Community/Area wide Plan: *Antelope Valley Area Plan*

Major projects in area:

PROJECT NUMBER	DESCRIPTION & STATUS
CUP 02-176	*Automotive racetrack on 322 acres southeast of project site (pending/EIR in progress)*
CPUC No. A.07-06-031	*SCE Tehachapi Renewable Transmission Project (500 kV transmission line project) east and north of project site (environmental review [EIR/EIS] in progress; CPUC decision due August 2009)*
Pending	*Pending eSolar concentrated solar project near Lancaster/Antelope Valley (pre-permitting phase)*

NOTE: For EIRs, above projects are not sufficient for cumulative analysis.

REVIEWING AGENCIES

Responsible Agencies

- ☐ None
- ☒ Regional Water Quality Control Board
  - ☐ Los Angeles Region
  - ☒ Lahontan Region
- ☐ Coastal Commission
- ☒ Army Corps of Engineers
- ☒ *California Energy Commission*
- ☒ *CA Public Utilities Commission*
- ☒ *Caltrans Aeronautics*
- ☒ *Caltrans*
- ☐

Trustee Agencies

- ☐ None
- ☒ State Fish and Game
- ☒ State Parks
- ☒ *U.S. Fish & Wildlife*

Special Reviewing Agencies

- ☐ None
- ☒ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☒ National Forest
- ☒ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mtns. Area
- ☒ *Kern County*
- ☒ *SCV Historical Society*
- ☒ *Southern California Edison*
- ☒ *City of Lancaster and Palmdale*
- ☒ *NAHC; CSUF*
- ☒ *DTSC; DOGGR*
- ☐ *CA DHS – Drinking Water Program; CA St. Water Res. Control Board; Dept. of Water Resources*
- ☒ *Antelope Valley AQMD; FAA*
- ☒ *Antelope Valley Conservancy; Antelope Acres Town Council;*
- ☒ *Nature Conservancy*
- ☒ *SCAG; CHP*

Regional Significance

- ☐ None
- ☐ SCAG Criteria
- ☒ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐
- ☐
- ☐
- ☐
- ☐

County Reviewing Agencies

- ☒ Subdivision Committee
- ☒ Fire Department (and Hazardous Material)
- ☒ *SEATAC; Sheriff*
- ☒ DPW: *GMED; Traffic & Lighting; Environmental Programs; Land Development (NPDES review, Drainage & Grading, and water supply); Transportation Planning; Waterworks and Sewer Maintenance; Flood Maintenance*
- ☒ *Public Health: Land Use Programs; Environmental Hygiene; Environmental Health*

IMPACT ANALYSIS MATRIX		ANALYSIS SUMMARY (See individual pages for details)				
			Less than Significant Impact/No Impact			
				Less than Significant Impact with Project Mitigation		
					Potentially Significant Impact	
CATEGORY	**FACTOR**	Pg				Potential Concern
HAZARDS	1. Geotechnical	5	☐	☐	☒	*700,000 c.y. of grading*
	2. Flood	6	☐	☐	☒	*Existing onsite drainage and floodplain conditions*
	3. Fire	7	☐	☐	☒	*Use of flammable materials during project construction and operation, private water wells*
	4. Noise	8	☒	☐	☐	
RESOURCES	1. Water Quality	9	☐	☐	☒	*Septic system*
	2. Air Quality	10	☐	☐	☒	*Potential construction emissions and fugitive dust*
	3. Biota	11	☐	☐	☒	*Drainage modification, biological resources, and SEA areas*
	4. Cultural Resources	12	☐	☐	☒	*Potential presence of onsite cultural resources*
	5. Mineral Resources	13	☒	☐	☐	
	6. Agriculture Resources	14	☒	☐	☐	
	7. Visual Qualities	15	☐	☐	☒	*California Poppy Trail, scenic highway*
SERVICES	1. Traffic/Access	16	☐	☐	☒	*Construction and maintenance activities*
	2. Sewage Disposal	17	☒	☐	☐	
	3. Education	18	☒	☐	☐	
	4. Fire/Sheriff	19	☐	☐	☒	*Extend service to undeveloped area*
	5. Utilities	20	☐	☐	☒	*Solid waste, limited utility services*
OTHER	1. General	21	☐	☐	☒	*Change of character*
	2. Environmental Safety	22	☐	☐	☒	*Historical and potential use of hazardous materials onsite*
	3. Land Use	23	☐	☐	☒	*Green building ordinance, SEA criteria*
	4. Pop/Hous./Emp./Rec.	24	☐	☐	☒	*Growth inducing effect*
	5. Mandatory Findings	25	☐	☐	☒	*Biota, air quality, flood, cultural resources, geotechnical, fire, water quality, traffic/access, environmental safety, utilities*

Environmental Finding:

FINAL DETERMINATION: On the basis of this Initial Study, the Department of Regional Planning finds that this project qualifies for the following environmental document:

☐ NEGATIVE DECLARATION, inasmuch as the proposed project will not have a significant effect on the environment.

An Initial Study was prepared on this project in compliance with the State CEQA Guidelines and the environmental reporting procedures of the County of Los Angeles. It was determined that this project will not exceed the established threshold criteria for any environmental/service factor and, as a result, will not have a significant effect on the physical environment.

☐ MITIGATED NEGATIVE DECLARATION, in as much as the changes required for the project will reduce impacts to insignificant levels (see attached discussion and/or conditions).

An Initial Study was prepared on this project in compliance with the State CEQA Guidelines and the environmental reporting procedures of the County of Los Angeles. It was originally determined that the proposed project may exceed established threshold criteria. The applicant has agreed to modification of the project so that it can now be determined that the project will not have a significant effect on the physical environment. The modification to mitigate this impact(s) is identified on the Project Changes/Conditions Form included as part of this Initial Study.

☒ ENVIRONMENTAL IMPACT REPORT*, inasmuch as there is substantial evidence that the project may have a significant impact due to factors listed above as "significant".

☐ At least one factor has been adequately analyzed in an earlier document pursuant to legal standards, and has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets (see attached Form DRP/IA 101). The Addendum EIR is required to analyze only the factors changed or not previously addressed.

Reviewed by: Christine Gran Date: 4-13-09

Approved by: [illegible] Date: 4-13-09

☐ This proposed project is exempt from Fish and Game CEQA filling fees. There is no substantial evidence that the proposed project will have potential for an adverse effect on wildlife or the habitat upon which the wildlife depends. (Fish & Game Code 753.5).

☐ Determination appealed – see attached sheet.

*NOTE: Findings for Environmental Impact Reports will be prepared as a separate document following the public hearing on the project.

HAZARDS - 1. Geotechnical

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Is the project located in an active or potentially active fault zone, Seismic Hazards Zone, or Alquist-Priolo Earthquake Fault Zone?
b.	☐	☒	☐	Is the project site located in an area containing a major landslide(s)?
c.	☐	☒	☐	Is the project site located in an area having high slope instability?
d.	☐	☒	☐	Is the project site subject to high subsidence, high groundwater level, liquefaction, or hydrocompaction?
e.	☐	☒	☐	Is the proposed project considered a sensitive use (school, hospital, public assembly site) located in close proximity to a significant geotechnical hazard?
f.	☒	☐	☐	Will the project entail substantial grading and/or alteration of topography including slopes of over 25%? *700,000 c.y. of grading proposed, most of which is associated with drainage channel improvements*
g.	☐	☐	☒	Would the project be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code (1994), creating substantial risks to life or property?
h.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ Building Ordinance No. 2225 – Sections 308B, 309, 310, and 311 and Chapters 29 and 70

☐ **MITIGATION MEASURES**

☐ Lot Size ☐ Project Design

☐ **OTHER CONSIDERATIONS**

☒ Approval of Geotechnical Report by DPW

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be impacted by, **geotechnical** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No Impact

HAZARDS - 2. Flood

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Is the major drainage course, as identified on USGS quad sheets by a dashed line, located on the project site? *Four ephemeral drainage courses occur on the project site*
b.	☒	☐	☐	Is the project site located within or does it contain a floodway, floodplain, or designated flood hazard zone? *100-year floodplain is located on the southeast corner of the project site*
c.	☐	☒	☐	Is the project site located in or subject to high mudflow conditions? *Project site is relatively flat and is not located adjacent to significant slopes*
d.	☐	☐	☒	Could the project contribute or be subject to high erosion and debris deposition from run-off? *Construction activities and removal of vegetation*
e.	☐	☐	☒	Would the project substantially alter the existing drainage pattern of the site or area? *One of the primary drainage courses will be channelized*
f.	☐	☐	☐	Other factors (e.g., dam failure)?

STANDARD CODE REQUIREMENTS

☐ Building Ordinance No. 2225 – Section 308A ☐ Ordinance No. 12,114 (Floodways)

☒ Approval of Drainage Concept by DPW

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Lot Size ☐ Project Design

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be impacted by **flood (hydrological)** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

HAZARDS - 3. Fire

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Is the project site located in a Very High Fire Hazard Severity Zone (Fire Zone 4)?
b.	☐	☒	☐	Is the project site in a high fire hazard area and served by inadequate access due to lengths, width, surface materials, turnarounds or grade?
c.	☐	☒	☐	Does the project site have more than 75 dwelling units on a single access in a high fire hazard area?
d.	☒	☐	☐	Is the project site located in an area having inadequate water and pressure to meet fire flow standards? *Project will utilize private water wells*
e.	☐	☒	☐	Is the project located in close proximity to potential dangerous fire hazard conditions/uses (such as refineries, flammables, explosives manufacturing)?
f.	☐	☐	☒	Does the proposed use constitute a potentially dangerous fire hazard? *Potential ignition sources such as vehicles, generators and motors during construction and operation*
g.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☒ Water Ordinance No. 7834 ☒ Fire Ordinance No. 2947 ☒ Fire Regulation No. 8
☐ Fuel Modification / Landscape Plan

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Project Design ☐ Compatible Use

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be impacted by **fire hazard** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

HAZARDS - 4. Noise

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☐	☒	Is the project site located near a high noise source (airports, railroads, freeways, industry)? *SR-138 bisects the site*
b.	☐	☒	☐	Is the proposed use considered sensitive (school, hospital, senior citizen facility) or are there other sensitive uses in close proximity?
c.	☐	☒	☐	Could the project substantially increase ambient noise levels including those associated with special equipment (such as amplified sound systems) or parking areas associated with the project?
d.	☐	☒	☐	Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels without the project?
e.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☒ Noise Control (Title 12 – Chapter 8) ☐ Uniform Building Code (Title 26 - Chapter 35)

☐ **MITIGATION MEASURES** ☒ **OTHER CONSIDERATIONS**

☐ Lot Size ☒ Project Design ☒ Compatible Use

The project shall comply with all applicable building code requirements and County noise ordinance

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be adversely impacted by **noise**?

☐ Potentially significant ☐ Less than significant with project mitigation ☒ Less than significant/No impact

RESOURCES - 1. Water Quality

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☐	☒	Is the project site located in an area having known water quality problems and proposing the use of individual water wells? *Project is proposing water wells*
b.	☒	☐	☐	Will the proposed project require the use of a private sewage disposal system? *Septic system proposed*
	☐	☐	☒	If the answer is yes, is the project site located in an area having known septic tank limitations due to high groundwater or other geotechnical limitations *or* is the project proposing on-site systems located in close proximity to a drainage course? *Septic system and leach field proposed. Four drainage courses occur onsite*
c.	☐	☐	☒	Could the project's associated construction activities significantly impact the quality of groundwater and/or storm water runoff to the storm water conveyance system and/or receiving water bodies? *Earth disturbance and use of equipment and vehicles would potentially increase sediment and construction-related pollutants in runoff flows*
d.	☐	☐	☒	Could the project's post-development activities potentially degrade the quality of storm water runoff and/or could post-development non-storm water discharges contribute potential pollutants to the storm water conveyance system and/or receiving bodies? *Storage and usage of hazardous materials onsite*
e.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ Industrial Waste Permit
☐ Plumbing Code – Ordinance No.2269
☐ Health Code – Ordinance No.7583, Chapter 5
☒ NPDES Permit Compliance (DPW)

☐ **MITIGATION MEASURES**
☐ Lot Size ☐ Project Design ☐ Compatible Use

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be adversely impacted by, **water quality** problems?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

RESOURCES - 2. Air Quality

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Will the proposed project exceed the State's criteria for regional significance (generally (a) 500 dwelling units for residential users or (b) 40 gross acres, 650,000 square feet of floor area or 1,000 employees for non-residential uses)? *Project site is 2,100 acres*
b.	☐	☒	☐	Is the proposal considered a sensitive use (schools, hospitals, parks) and located near a freeway or heavy industrial use?
c.	☐	☐	☒	Will the project increase local emissions to a significant extent due to increased traffic congestion or use of a parking structure or exceed AQMD thresholds of potential significance? *Construction activities and traffic; project operation including maintenance vehicle and equipment emissions*
d.	☒	☐	☐	Will the project generate or is the site in close proximity to sources that create obnoxious odors, dust, and/or hazardous emissions? *700,000 c.y. of grading proposed*
e.	☐	☒	☐	Would the project conflict with or obstruct implementation of the applicable air quality plan?
f.	☐	☐	☒	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Project region is designated as non-attainment for ozone*
g.	☐	☐	☒	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standard (including releasing emission which exceed quantitative thresholds for ozone precursors)? *Project region is designated as non-attainment for ozone*
h.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ Health and Safety Code – Section 40506

☐ **MITIGATION MEASURES**

☐ Project Design ☐ Air Quality Report

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, or be adversely impacted by, **air quality**?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

RESOURCES - 3. Biota

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Is the project site located within Significant Ecological Area (SEA), SEA Buffer, or coastal Sensitive Environmental Resource (ESHA, etc.), or is the site relatively undisturbed and natural? *Project site is located within SEA #60*
b.	☐	☐	☒	Will grading, fire clearance, or flood related improvements remove substantial natural habitat areas? *Majority of project site is natural*
c.	☒	☐	☐	Is a drainage course located on the project site that is depicted on USGS quad sheets by a dashed blue line or that may contain a bed, channel, or bank of any perennial, intermittent or ephemeral river, stream, or lake? *Four ephemeral drainages occur onsite*
d.	☐	☒	☐	Does the project site contain a major riparian or other sensitive habitat (e.g. coastal sage scrub, oak woodland, sycamore riparian, woodland, wetland, etc.)?
e.	☒	☐	☐	Does the project site contain oak or other unique native trees (specify kinds of trees)? *Joshua trees*
f.	☒	☐	☐	Is the project site habitat for any known sensitive species (federal or state listed endangered, etc.)? *Burrowing owls, loggerhead shrike, merlin, mountain bluebird, northern harrier, prairie falcon, coast horned lizard, and western meadowlark*
g.	☐	☐	☒	Other factors (e.g., wildlife corridor, adjacent open space linkage)? *California Poppy Reserve, Arthur B. Ripley Desert Woodland State Park, wildflower field at southeastern property boundary*

☐ **MITIGATION MEASURES**
☐ Lot Size ☐ Project Design

☐ **OTHER CONSIDERATIONS**
☐ ERB/SEATAC Review ☐ Oak Tree Permit

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on, **biotic** resources?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

RESOURCES - 4. Archaeological/Historical/Paleontological

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Is the project site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) that indicate potential archaeological sensitivity? *Drainage courses onsite*
b.	☐	☒	☐	Does the project site contain rock formations indicating potential paleontological resources?
c.	☐	☒	☐	Does the project site contain known historic structures or sites?
d.	☐	☐	☒	Would the project cause a substantial adverse change in the significance of a historical or archaeological resource as defined in 15064.5? *Cultural resources identified onsite*
e.	☐	☒	☐	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
f.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Lot Size ☐ Project Design ☐ Phase 1 Archaeology Report

CONCLUSION

Considering the above information, could the project leave a significant impact (individually or cumulatively) on **archaeological, historical**, or **paleontological** resources?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

RESOURCES - 5. Mineral Resources

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
b.	☐	☒	☐	Would the project result in the loss of availability of a locally important mineral resource discovery site delineated on a local general plan, specific plan or other land use plan?
c.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES**

☐ Lot Size ☐ Project Design

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project leave a significant impact (individually or cumulatively) on **mineral** resources?

☐ Potentially significant ☐ Less than significant with project mitigation ☒ Less than significant/No impact

RESOURCES - 6. Agriculture Resources

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?
b.	☐	☒	☐	Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
c.	☐	☒	☐	Would the project involve other changes in the existing environment that due to their location or nature, could result in conversion of Farmland, to non-agricultural use?
d.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Lot Size ☐ Project Design

CONCLUSION

Considering the above information, could the project leave a significant impact (individually or cumulatively) on **agriculture** resources?

☐ Potentially significant ☐ Less than significant with project mitigation ☒ Less than significant/No impact

RESOURCES - 7. Visual Qualities

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed? *SR-138 is secondary scenic highway*
b.	☐	☐	☒	Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail? *California Poppy Trail southeast of site*
c.	☐	☒	☐	Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?
d.	☒	☐	☐	Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features? *Surrounding areas and the majority of project site is undisturbed*
e.	☐	☐	☒	Is the project likely to create substantial sun shadow, light or glare problems? *Outdoor and security lighting*
f.	☐	☐	☐	Other factors (e.g., grading or landform alteration)?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Lot Size ☐ Project Design ☐ Visual Report ☐ Compatible Use

CONCLUSION

Considering the above information, could the project leave a significant impact (individually or cumulatively) on **scenic** qualities?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

SERVICES - 1. Traffic/Access

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Does the project contain 25 dwelling units or more and is it located in an area with known congestion problems (roadway or intersections)?
b.	☐	☒	☐	Will the project result in any hazardous traffic conditions?
c.	☐	☒	☐	Will the project result in parking problems with a subsequent impact on traffic conditions?
d.	☐	☒	☐	Will inadequate access during an emergency (other than fire hazards) result in problems for emergency vehicles or residents/employees in the area?
e.	☒	☐	☐	Will the congestion management program (CMP) Transportation Impact Analysis thresholds of 50 peak hour vehicles added by project traffic to a CMP highway system intersection or 150 peak hour trips added by project traffic to a mainline freeway link be exceeded? *Project site bisected by SR-138 (Avenue D)*
f.	☐	☒	☐	Would the project conflict with adopted policies, plans, or program supporting alternative transportation (e.g., bus, turnouts, bicycle racks)?
g.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Project Design ☒ Traffic Report ☒ Consultation with Traffic & Lighting Division

CONCLUSION

Considering the above information, could the project leave a significant impact (individually or cumulatively) on **traffic/access** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

SERVICES - 2. Sewage Disposal

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	If served by a community sewage system, could the project create capacity problems at the treatment plant?
b.	☐	☒	☐	Could the project create capacity problems in the sewer lines serving the project site?
c.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ Sanitary Sewers and Industrial Waste – Ordinance No. 6130

☐ Plumbing Code – Ordinance No. 2269

☐ **MITIGATION MEASURES** ☒ **OTHER CONSIDERATIONS**

Project is proposing private septic system

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on the physical environment due to **sewage disposal** facilities?

☐ Potentially significant ☐ Less than significant with project mitigation ☒ Less than significant/No impact

SERVICES - 3. Education

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Could the project create capacity problems at the district level?
b.	☐	☒	☐	Could the project create capacity problems at individual schools that will serve the project site?
c.	☐	☒	☐	Could the project create student transportation problems?
d.	☐	☒	☐	Could the project create substantial library impacts due to increased population and demand?
e.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Site Dedication ☐ Government Code Section 65995 ☐ Library Facilities Mitigation Fee

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) relative to **educational** facilities/services?

☐ Potentially significant ☐ Less than significant with project mitigation ☒ Less than significant/No impact

SERVICES - 4. Fire/Sheriff Services

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Could the project create staffing or response time problems at the fire station or sheriff's substation serving the project site? *Nearest fire station is the Lancaster Fire Station which is approximately 17 miles from the site; nearest sheriff station is in Lancaster located at 501 West Lancaster Blvd. which is approximately 20 miles from the site*
b.	☐	☒	☐	Are there any special fire or law enforcement problems associated with the project or the general area?
c.	☐	☐	☐	Other factors?

☒ **MITIGATION MEASURES**

☒ Fire Mitigation Fee

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) relative to **fire/sheriff** services?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

SERVICES - 5. Utilities/Other Services

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Is the project site in an area known to have an inadequate public water supply to meet domestic needs or to have an inadequate ground water supply and proposes water wells? *Project proposes use of water wells*
b.	☐	☐	☒	Is the project site in an area known to have an inadequate water supply and/or pressure to meet fire fighting needs? *Project will utilize water wells*
c.	☐	☐	☒	Could the project create problems with providing utility services, such as electricity, gas, or propane? *Site has limited utility services*
d.	☐	☐	☒	Are there any other known service problem areas (e.g., solid waste)? *Limited landfill capacities*
e.	☐	☒	☐	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services or facilities (e.g., fire protection, police protection, schools, parks, roads)?
f.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ Plumbing Code – Ordinance No. 2269 ☐ Water Code – Ordinance No. 7834

☐ **MITIGATION MEASURES**

☐ Lot Size ☐ Project Design

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) relative to **utilities** services?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

OTHER FACTORS - 1. General

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Will the project result in an inefficient use of energy resources?
b.	☒	☐	☐	Will the project result in a major change in the patterns, scale, or character of the general area or community? *Surrounding areas and majority of site is undeveloped*
c.	☐	☒	☐	Will the project result in a significant reduction in the amount of agricultural land?
d.	☐	☐	☐	Other factors?

STANDARD CODE REQUIREMENTS

☐ State Administrative Code, Title 24, Part 5, T-20 (Energy Conservation)

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

☐ Lot Size ☐ Project Design ☐ Compatible Use

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on the physical environment due to any of the above factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

OTHER FACTORS - 2. Environmental Safety

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☒	☐	☐	Are any hazardous materials used, transported, produced, handled, or stored on-site? *Paint, solvents, compressed gas, diesel or gasoline, hydrochlorofluorocarbons*
b.	☒	☐	☐	Are any pressurized tanks to be used or any hazardous wastes stored on-site? *Propane tanks, pressurized gas canisters, and other flammable substances*
c.	☐	☒	☐	Are any residential units, schools, or hospitals located within 500 feet and potentially adversely affected?
d.	☐	☐	☒	Have there been previous uses that indicate residual soil toxicity of the site or is the site located within two miles downstream of a known groundwater contamination source within the same watershed? *Past agricultural uses and farming activities; one plugged and abandoned dry hole*
e.	☐	☒	☐	Would the project create a significant hazard to the public or the environment involving the accidental release of hazardous materials into the environment?
f.	☐	☒	☐	Would the project emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
g.	☐	☒	☐	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or environment?
h.	☐	☒	☐	Would the project result in a safety hazard for people in a project area located within an airport land use plan, within two miles of a public or public use airport, or within the vicinity of a private airstrip?
i.	☐	☒	☐	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
j.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES**
☐ Toxic Clean-up Plan

☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact relative to **public safety**?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

OTHER FACTORS - 3. Land Use

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Can the project be found to be inconsistent with the plan designation(s) of the subject property?
b.	☐	☒	☐	Can the project be found to be inconsistent with the zoning designation of the subject property?
c.				Can the project be found to be inconsistent with the following applicable land use criteria:
	☐	☒	☐	Hillside Management Criteria?
	☒	☐	☐	SEA Conformance Criteria?
	☐	☐	☐	Other?
d.	☐	☒	☐	Would the project physically divide an established community?
e.	☒	☐	☐	Other factors? *County green building ordinance*

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on the physical environment due to **land use** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

OTHER FACTORS - 4. Population/Housing/Employment/Recreation

SETTING/IMPACTS

	Yes	No	Maybe	
a.	☐	☒	☐	Could the project cumulatively exceed official regional or local population projections?
b.	☒	☐	☐	Could the project induce substantial direct or indirect growth in an area (e.g., through projects in an undeveloped area or extension of major infrastructure)? *Commercial development in an undeveloped area; availability of increased renewable energy supply*
c.	☐	☒	☐	Could the project displace existing housing, especially affordable housing?
d.	☐	☒	☐	Could the project result in substantial job/housing imbalance or substantial increase in Vehicle Miles Traveled (VMT)?
e.	☐	☒	☐	Could the project require new or expanded recreational facilities for future residents?
f.	☐	☒	☐	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
g.	☐	☐	☐	Other factors?

☐ **MITIGATION MEASURES** ☐ **OTHER CONSIDERATIONS**

CONCLUSION

Considering the above information, could the project have a significant impact (individually or cumulatively) on the physical environment due to **population, housing, employment,** or **recreational** factors?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

MANDATORY FINDINGS OF SIGNIFICANCE

Based on this Initial Study, the following findings are made:

	Yes	No	Maybe	
a.	☒	☐	☐	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? *Biota, cultural resources*
b.	☒	☐	☐	Does the project have possible environmental effects that are individually limited but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. *Water quality, air quality, visual qualities, traffic/access, utilities, fire/sheriff services*
c.	☒	☐	☐	Will the environmental effects of the project cause substantial adverse effects on human beings, either directly or indirectly? *Geotechnical, flood, fire hazard, environmental safety*

CONCLUSION

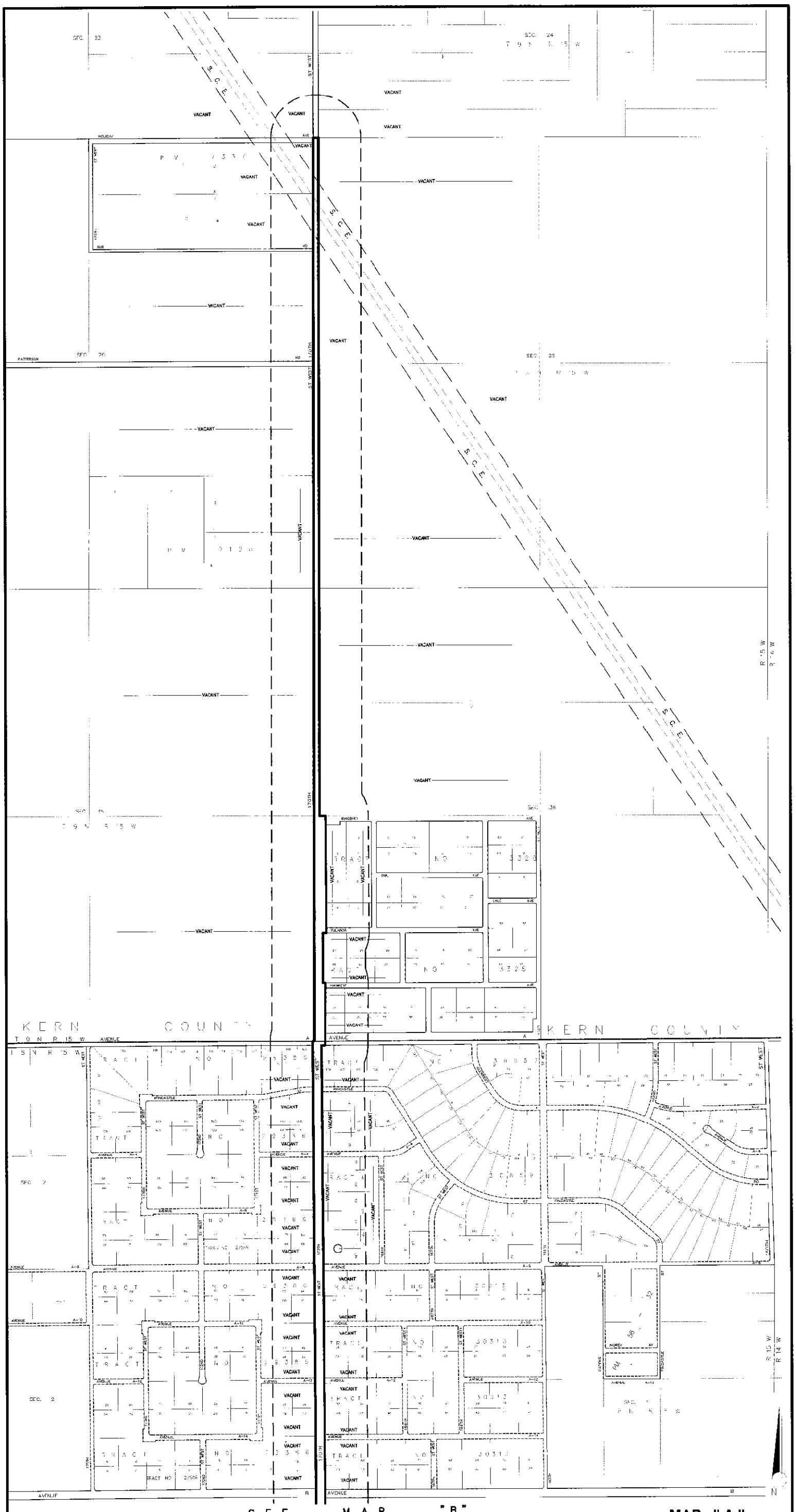
Considering the above information, could the project have a significant impact (individually or cumulatively) on the environment?

☒ Potentially significant ☐ Less than significant with project mitigation ☐ Less than significant/No impact

FIGURES

ATTACHMENT 3

AV SOLAR RANCH ONE
500-FOOT RADIUS LAND USE MAP



GC MAPPING SERVICE, INC.

3055 WEST VALLEY BOULEVARD
ALHAMBRA CA 91803
(626) 441-1080 FAX (626) 441-8850
gcmapping@radiusmaps.com

COUNTY OF LOS ANGELES
500' RADIUS MAP

LEGEND

○ SINGLE FAMILY RESIDENCE

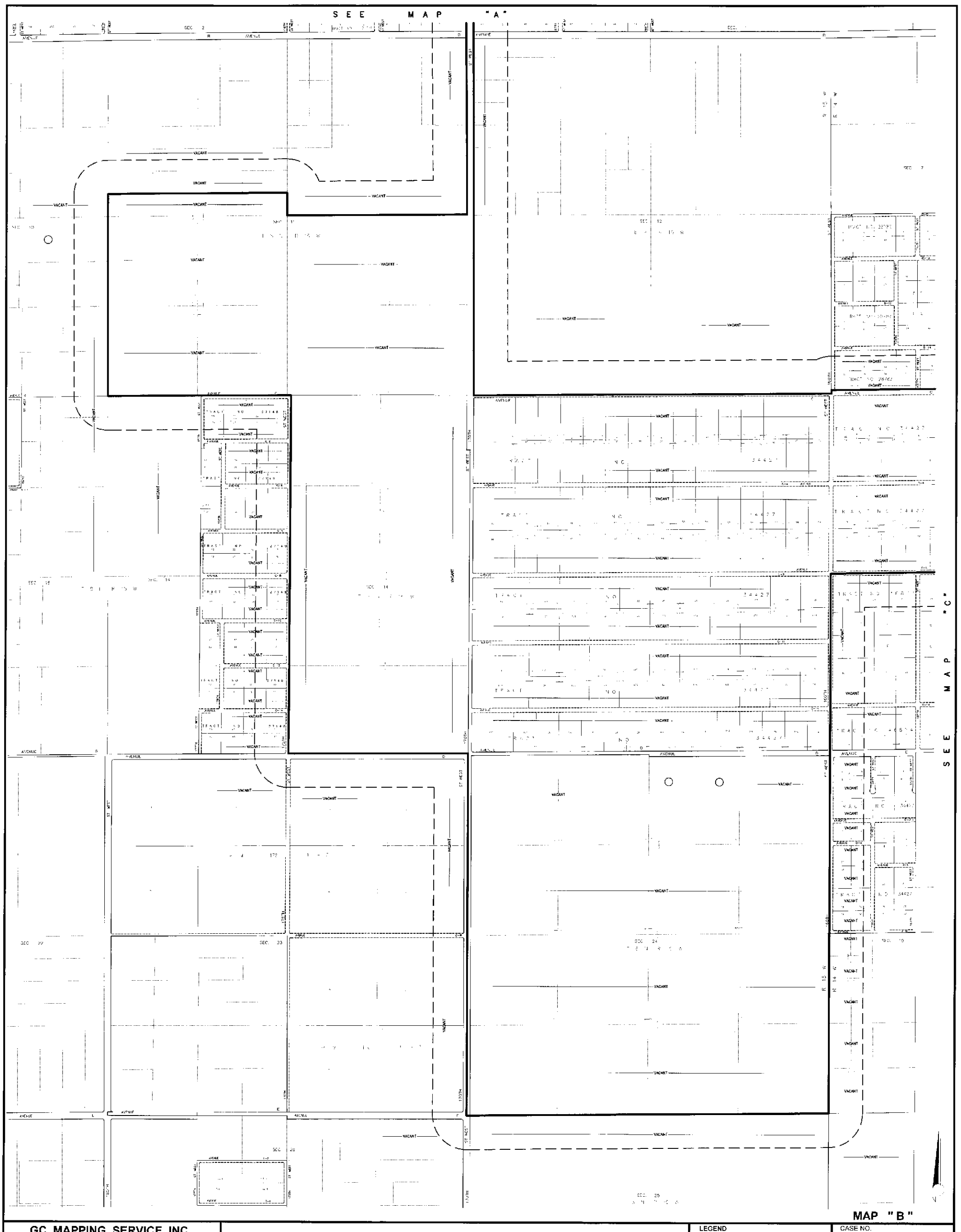
ALL OTHER USES AS SHOWN

CASE NO.

DATE: 02 - 17 - 09

SCALE: 1" = 400'

LAND USE MAP



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ALHAMBRA CA 91803
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gcmapping@radiusmaps.com

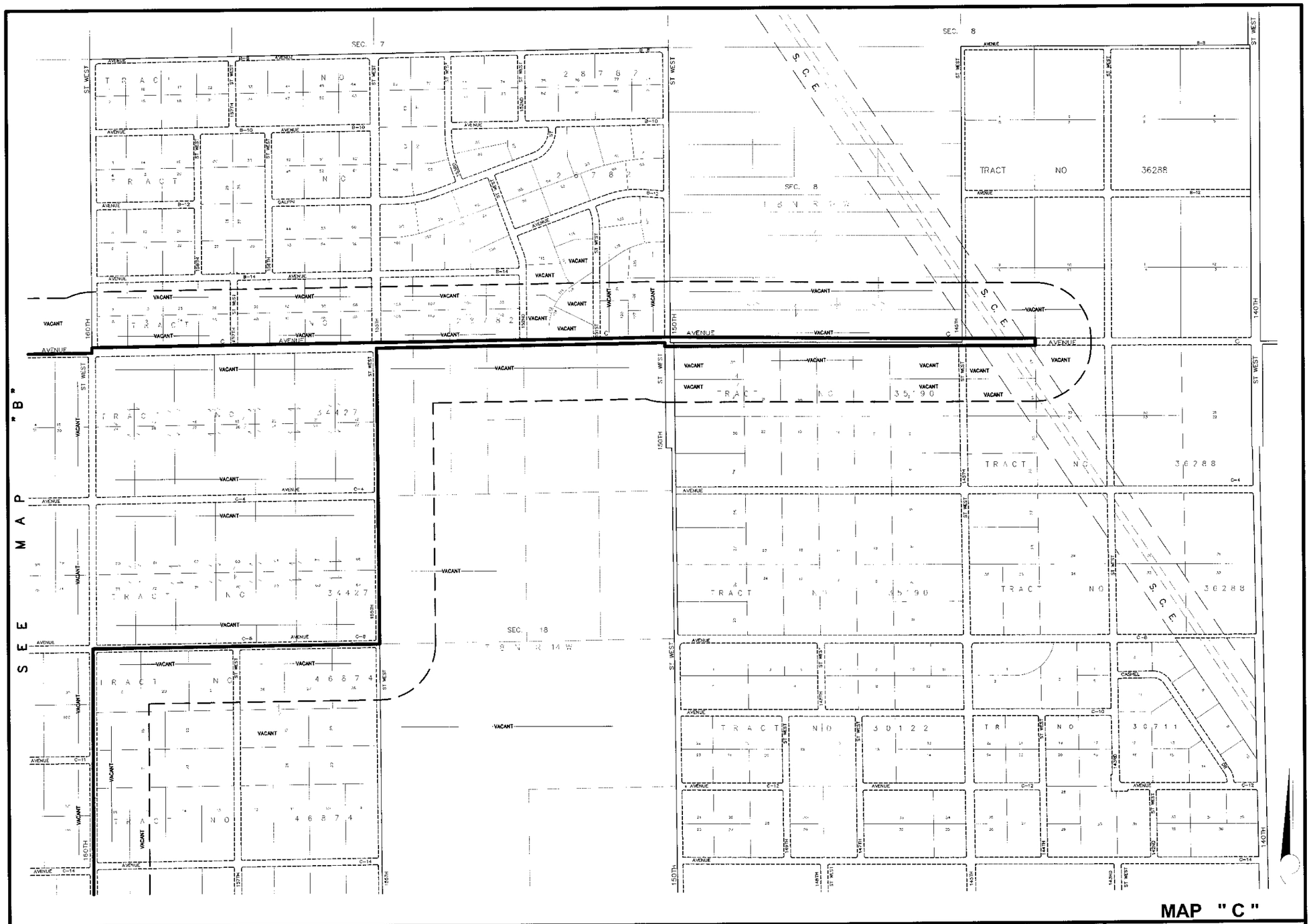
COUNTY OF LOS ANGELES
500' RADIUS MAP

LEGEND
- ◯ SINGLE FAMILY RESIDENCE
- ② NUMBER OF UNITS

ALL USES AS SHOWN

CASE NO.
DATE: 02 - 17 - 09
SCALE: 1" = 400'

LAND USE MAP



MAP "C"

GC MAPPING SERVICE, INC.

3055 WEST VALLEY BOULEVARD
ALHAMBRA CA 91803
(626) 441-1080 FAX (626) 441-8850
gcmapping@radiusmaps.com

COUNTY OF LOS ANGELES
500' RADIUS MAP

LEGEND

ALL USES AS SHOWN

CASE NO.

DATE: 02 - 17 - 09

SCALE: 1" = 400'

LAND USE MAP

APPENDIX A.2
NOTICE OF PREPARATION RESPONSE LETTERS

TABLE A.2-1
SUMMARY OF NOTICE OF PREPARATION COMMENT LETTERS RECEIVED

Commenter	Role	Letter Date	General Identification of Issues Raised
Federal Agencies			
U.S. Fish and Wildlife Service	Trustee Agency	5/28/2009	Biological Resources
State Agencies			
California Department of Fish and Game	Trustee Agency	5/28/2009	Biological Resources
California Department of Toxic Substances Control	Responsible Agency	5/22/2009	Environmental Hazards (Hazardous Materials)
California Department of Transportation (Caltrans)	Responsible Agency	7/23/2009	Construction work zone safety; required Caltrans permits; Glare; Potential future SR-138 widening; Transport of over-sized vehicles
California Regional Water Quality Control Board - Lahontan Region	Responsible Agency	6/1/2009	Flood Hazards (hydrology), Water Quality (water supply, water quality)
Native American Heritage Commission	Trustee Agency	5/7/2009	Cultural Resources
OPR State Clearinghouse	State CEQA Coordination and Documentation	4/30/2009	NOP Distribution; NOP comment period 4-30 to 5-29-09; list of reviewing agencies
Local/Regional Agencies			
Antelope Valley Board of Trade		5/18/2009	Proposed project is a positive step forward for the Antelope Valley in delivering clean, renewable energy and creating sustainable economic growth.
City of Palmdale Planning Department		5/21/2009	None
Desert and Mountain Conservation Authority		8/11/2009	DEIR Alternatives for biological considerations, analysis of view impacts, management plans, and fencing.
Kern County Planning Department	Responsible Agency	6/1/2009	Land Use; Project Definition; Alternatives
South Coast AQMD	--	5/7/2009	Air Quality
Southern California Association of Governments		5/28/2009	Regional Traffic, Growth-Inducing, Land Use

TABLE A.2-1 (CONTINUED)
SUMMARY OF NOTICE OF PREPARATION COMMENT LETTERS RECEIVED

Commenter	Role	Letter Date	General Identification of Issues Raised
Los Angeles County			
County of Los Angeles Dept. of Public Works	CUP related and EIR scope	6/15/09	Traffic; Hydrology/Drainage Plan/Water Quality; Hazardous Materials/Waste; Transmission Line impacts; Geotechnical Hazards
County of Los Angeles Public Health	CUP related and EIR scope	5/29/2009 and 4/21/09	Water Quality, Utilities
Los Angeles County Fire Department	CUP not NOP	6/8/2009	Fuel modification, access, revised site plan. facility specifications, signage
Organizations			
Sierra Club (Antelope Valley Group)		6/1/2009	Biological Resources, Visual
Citizens			
Aguilar, Peter and Elizabeth	Nearby residence	--	Visual, water quality, flooding hazard, air quality
Hayatdavoodi, Arsalan	Nearby residence	5/26/2009	
Tuszynski, Jack	--	5/18/2009	Alternatives
Webb, Dean	--	5/27/2009	Biological Resources, Visual
Scoping Meeting	CEQA compliance and input to EIR scope	5/14/2009	Various

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
2009-TA-0342

June 16, 2009

JUN 18 2009

Christina Tran
Department of Regional Planning
County of Los Angeles
320 West Temple Street
Los Angeles, California 90012

Subject: AV Notice of Preparation, AV Solar Ranch One Project, County Project Number R2009-02239, Tract Map Number TR071035, RCUPT200900026, RENVT200900027, Los Angeles County, California

Dear Ms. Tran:

This letter is in response to the referenced notice of preparation. The County of Los Angeles will prepare an environmental impact report for the referenced project, which would consist of a 230-megawatt solar photovoltaic facility on 2,100 acres of land in the Antelope Valley, west of Highway 14. A 230-kilovolt, 3.5-mile-long transmission line would connect the solar plant to Southern California Edison's planned Whirlwind Substation in Kern County. The notice of preparation provides additional detail regarding the proposed action. We offer these comments under the authorities of the Endangered Species Act of 1973, as amended, and the Migratory Bird Treaty Act.

We offer the following comments for your consideration:

Desert Tortoise

Some potential exists that the project site and areas along the proposed transmission line may support individuals of the federally threatened desert tortoise (*Gopherus agassizii*). To determine whether desert tortoises occur in the project area, we recommend that the proponent survey areas that would be affected by construction and operation of the solar plant and transmission line, as described in the protocol at:
http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/dt/DT_Pre-project_SurveyProtocol_2009_FieldSeason.pdf

If desert tortoises occur in the project area, the draft environmental impact report should note that section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly

impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.

The U.S. Fish and Wildlife Service (Service) can permit incidental take associated with an otherwise lawful activity through an incidental take permit issued under the authorities of section 10(a)(1)(B) of the Endangered Species Act. Alternatively, if a Federal agency has discretionary regulatory authority over the proposed action, it would be required to consult with the Service under authorities of section 7(a)(2) of the Endangered Species Act; if, as a result of the consultation, the Service determines the proposed action is not likely to jeopardize the continued existence of the desert tortoise, the project proponent would be exempted from the prohibition against take contained in section 9 of the Endangered Species Act. If desert tortoises occur in the project area and may be taken during project activities, the project proponent should contact the Service to determine the appropriate course of action.

Migratory Birds

Most native species of birds, including all of the species noted on page 11 of the initial study, are protected by the Migratory Bird Treaty Act. Consequently, such species cannot be taken during any aspect of the project's construction and operation. This prohibition extends to eggs and nestlings. The Migratory Bird Treaty Act does not contain any provisions to permit or allow the incidental take of migratory birds. Consequently, the take of migratory birds must be avoided. We recommend that the draft environmental impact report contain measures to ensure compliance with this Federal law.

Even if the proposed action can be developed without killing or injuring migratory birds, the loss of Joshua tree woodlands, other desert scrub habitat, and, to a lesser extent, fallow agricultural fields would result in a decrease in breeding, foraging, and sheltering habitat for numerous species. We encourage the County of Los Angeles and the project proponent to work with the Service, local and resource agencies, and other interested parties to establish a network of protected areas to maintain the overall biological and ecological functions of the Antelope Valley. Such a network would be important in conserving species diversity on a regional basis and in protecting the values of existing protected areas, such as the California Poppy Preserve and the Arthur B. Ripley Desert Woodland State Park.

We apologize that our comments are late but hope that they may assist you in your planning process. If you have any questions, please contact Ray Bransfield of my staff at (805) 644-1766, extension 317.

Sincerely,

Carl T. Benz
Assistant Field Supervisor

STATE OF CALIFORNIA-THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF FISH AND GAME

FACSIMILE TRANSMITTAL

TO: **Christina Tran**
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FROM: **Edmund J. Pert**
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Telephone (858) 467-4201
Fax (858) 467-4239

DATE: 05-28-09 **TIME:** 3:15p

 # OF PAGES SENT INCLUDING TRANSMITTAL SHEET 18

COMMENTS:

Attached are the Departments comments on the Notice of Preparation (NOP) for a Draft Environmental Impact Report for the AV Solar Ranch One Project (Tract Map No. TR071035 RCUPT200900026 RENVT200900027), County of Los Angeles (SCH No. 2009041145).

IF YOU DO NOT RECEIVE ALL OF THE PAGES INDICATED PLEASE CALL THE SENDER AS SOON AS POSSIBLE.

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
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ARNOLD SCHWARZENEGGER, Governor
DONALD KOCH, Director

May 28, 2009

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Subject: Department comments on the Notice of Preparation (NOP) for a Draft Environmental Impact Report for the AV Solar Ranch One Project (Tract Map No. TR071035 RCUPT200900026 RENVT200900027), County of Los Angeles (SCH No. 2009041145)

Dear Ms. Tran:

The Department of Fish and Game has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the AV Solar Ranch One project. The project proposes constructing a 230-megawatt (MW) photovoltaic solar power plant on a 2,100-acre site in the Antelope Valley in northern Los Angeles County. The solar panel arrays and buildings would cover a majority of the 2,100 acre site. The proposed 3.5 mile transmission line would run along 170th Street to the Whirlwind Substation in Kern County.

Although the NOP document contains little information about the baseline biological conditions on the site, the Department conducted a site visit on January 28, 2009 with the applicant. In addition, the Department was present at the May 11, 2009 SEATAC meeting held at the Los Angeles County Department of Regional Planning Offices for which the project was presented.

The Department encourages continued flexibility in the project design in order to avoid and minimize impacts to sensitive biological resources which may be identified during subsequent biological surveys, which commence this spring. Biological surveys may reveal additional potentially significant impacts which warrant analyzing alternatives to substantially reduce or minimize those impacts. The Department recommends surveying the entire 2,100-acre site to facilitate developing alternatives which avoid or minimize biological impacts based on biological survey data. The Department recommends completing the biological surveys prior to developing the range of alternatives and circulating the DEIR.

Specific Comments

CEQA Authority

The Department is a Trustee Agency with the responsibility under CEQA for commenting on projects that could impact fish and wildlife resources. Pursuant to Fish and Game Code Section

05/28/2009 15:11 FAX 18584674299 DFG R5 Southcoast Region 002/018

1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.

The Department is a Responsible Agency when a subsequent permit or other type of discretionary approval is required from the Department, such as an Incidental Take Permit, pursuant to CESA, or a Streambed Alteration Agreement issued under Fish and Game Code Sections 1600 *et seq.*

The Department's issuance of a take permit and/or a Streambed Alteration Agreement is also considered a "project" subject to CEQA (CEQA Guidelines Section 15378). The Department typically relies on the Lead Agency's CEQA compliance to make findings, pursuant to CEQA Guidelines Section 15091. For the Lead Agency's CEQA document to suffice for CESA permit issuance, it must fully describe the potential Project-related impacts to State-listed species and commit to measures to avoid, minimize, and fully mitigate impacts to these resources. This means that the project must not diminish the overall populations of State-listed species. A Statement of Overriding Considerations for significant unmitigated impacts to State-listed species will not support Incidental Take Permit issuance. If the CEQA document completed for this project does not contain these commitments, the Department may need to act as a Lead CEQA Agency and complete a subsequent CEQA document to support permit issuance.

Habitat Degradation within Solar Arrays:
The applicant proposes allowing vegetation within the solar arrays to minimize habitat loss and fragmentation. While the Department encourages on-site measures to minimize habitat loss, the effectiveness of maintaining habitat values on-site during project operation is unknown and has not been demonstrated. No data exist to demonstrate the effects on avian or terrestrial wildlife within photovoltaic arrays. The DEIR should consider the potential for adverse effects within the solar arrays from several features: the physical and visual barriers created by the vertical structures and the shade produced from the panels. In addition the DEIR should consider impacts from maintenance activities such as herbicide, pesticide use, and removal of nuisance bird nests.

The published literature available to date suggests that solar arrays would substantially alter the vegetation community within the arrays. The area under each panel would receive direct sunlight for only a short period before its shadow would lengthen and extend under the neighboring panel. Smith (1984) documented that solar panel shading and washing in a desert setting changed plant community composition, caused vegetation to remain green longer, and resulted in a delayed green biomass peak compared to natural conditions. Smith et al. (1987) demonstrated that shading from simulated solar panels increased the soil moisture underneath and between panels, reduced temperatures under panels, altered plant community composition, and reduced the total plant biomass. In addition, the release from grazing as well as the construction disturbance may result in Russian thistle (*Salsola tragus*) or other plant invasions which would further alter the vegetation structure and composition. These changes would likely degrade the existing open grassland conditions.

Impacts to Burrowing Owl
The Department recommends following the California Burrowing Owl Consortium survey methods (CBOC, 1993) to establish the status of burrowing owl on the Project site and provide

for a CEQA baseline. The Department recommends surveying the entire Project site (all the affected parcels) to facilitate avoidance through alternative Project designs if the species is encountered on only portions of the site. CEQA impact assessment, "take" avoidance, and habitat compensation should follow the Department staff report recommendations (DFG, 1995). If the Project site contains potential burrows, the Department requires that a qualified biologist conduct a survey no more than 30 days before the onset of any ground-disturbing activities. If burrowing owls occupy the site during the non-breeding season, a passive relocation effort may be instituted. Otherwise, the Department recommends that projects avoid occupied burrows with a minimum 250-foot no-construction buffer zone, unless a Department-approved biologist verifies through non-invasive methods that either 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Failure to implement this buffer zone could cause adult burrowing owls to abandon the nest, cause eggs or young to be directly impacted (crushed), and/or result in reproductive failure. Impacts of this nature violate Fish and Game Code Sections 3503, 3503.5, 3513, and the International Migratory Bird Treaty Act.

Impacts to Joshua tree Woodland

The site encompasses a 20 acre portion of Los Angeles County designated Significant Environmental Area 60, designated as such, for Joshua tree Woodlands. The 20-acre-portion of the site does not support Joshua trees. However, an additional 7-acre portion of the site does support approximately 50 recruited small Joshua trees that average 2 to 4 feet tall. Because natural Joshua tree recruitment is a rare occurrence, its significance on the site only increases. The Department recommends the site be reconfigured to protect the Joshua trees. If full avoidance can not be achieved, the Department recommends actual Joshua tree acreage be mitigated at a ratio of 2:1 with emphasis on habitat preservation off site. In addition, surveys should be conducted for Yucca moth, the known pollinator of Joshua trees. Presence of this moth on-site, which is highly likely due to presence of recruiting Joshua trees, would be significant.

Desert Kit Fox

Desert kit fox is known to occur within the project vicinity. Although not listed, the desert kit fox is regionally significant. The DEIR should fully analyze the potential for kit fox to occur on the project site. The project may substantially degrade, displace, and fragment kit fox habitat. The DEIR should also address the potential kit fox impacts for the life of the project as discussed later in this letter under "Wildlife Impacts from Vegetation Management" and "Small Mammal Control." Effects from human activities associated with the proposed visitor center, operations center, panel washing, and security patrols should also be assessed.

Wildlife Impacts from Vegetation Management

The applicant proposes several methods of vegetation management, including sheep grazing and mechanical methods, required between the solar arrays to allow vehicular access. The Department recommends that the EIR describe the anticipated vegetation management practices and assess its impacts on terrestrial vertebrates and nesting birds. The discussion should include impacts to non-listed species, special status species (e.g., burrowing owl), and species protected under the International Migratory Bird Treaty Act and Fish and Game Code Sections 3503 et seq.

The Department recommends clarifying what the fuels management requirements would be within the solar arrays and along perimeters, and how this would affect special status species habitat. Most proposed and existing solar projects, even in less vegetated areas such as deserts, manage fire risk by means of complete vegetation removal. The DEIR should clarify

how allowing flashy fuels under and around the panels is feasible for this project and not other similar projects.

Small Mammal Control
The DEIR should address the methods of small mammal control proposed by the project. Although the effects on the small mammal community composition are unknown, it is likely that ground squirrels, rabbits and hares, and other small mammals would inhabit the site. These species are likely to undermine the proposed tracker unit foundations via burrowing activities, which could pose a substantial maintenance issue. The Department requests that the DEIR specify the potential maintenance requirements and methods, and their implications for wildlife.

Special Status Plants
Although the site is currently fallow agricultural fields, portions of the site have been fallow for years. We recommend that botanical surveys follow guidelines developed by the Department (http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/guideplt.pdf) and the USFWS (http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/ botanicalinventories.pdf). Botanical surveys should cover the entire property and should be timed appropriately to detect all species that may occur on the property before CEQA analysis occurs. Use of reference sites is recommended for species known to occur in the vicinity or otherwise have a high potential of occurring on-site.

Wetlands
The DEIR should include a plan to ensure no net loss of wetland and riparian habitat values and acreage. For wetland impacts that are unavoidable, Commission policy states that for every acre of wetland lost, no less than one acre of wetland must be created from non-wetland habitat. The policy further describes that the compensatory mitigation must at least duplicate the fish and wildlife habitat values that are lost to Project implementation. Mitigation sites should include buffers of sufficient width to eliminate potential disturbance from noise, human activity, feral animal intrusion, and any other potential sources of disturbance. In-kind, on-site mitigation is generally the most acceptable. The Department strongly prefers mitigation which would both expand wetland acreage and enhance wetland habitat values, while avoiding impacts to other classes of sensitive resources.

General Comments:

1) A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats (Attachment 1).

   a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities (Attachment 2).

   b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380).

d. The Department's Wildlife Habitat Data Analysis Branch in Sacramento should be contacted at (916) 322-2493 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2) A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

a. CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas are of concern to the Department and should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic, outdoor artificial lighting, noise and vibration.

c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to remove/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1- September 1) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird season, nest

surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500-foot buffer for all active raptor nests).

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, Joshua tree woodlands, etc. should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed with offsite mitigation locations clearly identified.

   b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

   c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

   a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

   b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

Thank you for this opportunity to comment on the DEIR. Questions regarding this letter and further coordination regarding these issues should be directed to Erinn Wilson, Staff Environmental Scientist, at (714) 968-0953.

Sincerely,

Edmund J. Pert
Regional Manager
South Coast Region

Attachments

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Dave Hacker, Central Valley Region

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Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

S1.# Fewer than 6 known locations and/or on fewer than 2,000 acres of habitat remaining.

S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh

05/28/2009 15:15 FAX 18584874299 DFG R5 Southcoast Region 010/018

S1.2	Southern Foredunes Mono Pumice Flat Southern Interior Basalt Flow Vernal Pool
S2.1	Venturan Coastal Sage Scrub Diegan Coastal Sage Scrub Riversidean Upland Coastal Sage Scrub Riversidean Desert Sage Scrub Sagebrush Steppe Desert Sink Scrub Mafic Southern Mixed Chaparral San Diego Mesa Hardpan Vernal Pool San Diego Mesa Claypan Vernal Pool Alkali Meadow Southern Coastal Salt Marsh Coastal Brackish Marsh Transmontane Alkali Marsh Coastal and Valley Freshwater Marsh Southern Arroyo Willow Riparian Forest Southern Willow Scrub Modoc-Great Basin Cottonwood Willow Riparian Modoc-Great Basin Riparian Scrub Mojave Desert Wash Scrub Engelmann Oak Woodland Open Engelmann Oak Woodland Closed Engelmann Oak Woodland Island Oak Woodland California Walnut Woodland Island Ironwood Forest Island Cherry Forest Southern Interior Cypress Forest Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes Active Desert Dunes Stabilized and Partially Stabilized Desert Dunes Stabilized and Partially Stabilized Desert Sandfield Mojave Mixed Steppe Transmontane Freshwater Marsh Coulter Pine Forest Southern California Fellfield White Mountains Fellfield
S2.3	Bristlecone Pine Forest Limber Pine Forest

05/28/2009 15:15 FAX 18584674299 DFG R5 Southcoast Region 011/018

Attachment

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Plant Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983, Revised May 8, 2000
Revised October 22, 2008

INTRODUCTION

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **how** field surveys should be conducted, **what** information should be contained in the survey report, and **who** should be considered qualified to conduct such surveys. Although these guidelines are not mandatory, they are designed to avoid delays caused when inadequate biological information is provided during the environmental review process[1]. Their use is intended to maximize the limited resources of the review agencies, to meet the California Environmental Quality Act (CEQA) requirements for adequate disclosure of potential impacts, and to conserve public trust resources.

DEPARTMENT OF FISH AND GAME TRUSTEE AGENCY MISSION

The mission of the Department of Fish and Game (DFG) is to manage California's diverse wildlife and native plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. DFG has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations (Fish and Game Code § 1802). DFG, as trustee agency under CEQA §15386, provides expertise to review and comment upon environmental documents and makes recommendations regarding potential negative impacts to those resources held in trust for the people of California.

Furthermore, certain species are in danger of extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of other factors. The California Endangered Species Act (CESA) provides additional protections for such species, including take prohibitions (Fish and Game Code § 2050 *et seq.*). DFG has the authority to issue permits for the take of species listed under CESA, if the take is incidental to an otherwise lawful activity, and DFG has determined that the impacts of the take have been minimized and fully mitigated, and the take would not jeopardize the continued existence of the species (Fish and Game Code § 2081).

DEFINITIONS

Botanical surveys are conducted to determine the potential environmental effects of proposed projects on all special status plants and natural communities as required by law (i.e., CEQA, CESA, and Federal Endangered Species Act (ESA)).

For the purposes of this document, **special status plants** include all species that meet one or more of the following criteria[2]:

- Listed or proposed for listing as threatened or endangered under ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR §17.12).

---

1 DFG issues incidental take permits to allow take of a listed species incidental to an otherwise lawful activity (CESA § 2081(b)). Surveys are one of the preliminary steps to identify the presence or absence of a listed species. It is important that surveys provide sufficient information to allow DFG to formulate measures to ensure that take is minimized and fully mitigated and show that issuance of the take permit will not jeopardize the continued existence of a listed species. The guidelines are designed to increase the likelihood that the necessary information is provided to DFG.

2 Adapted from the East Alameda County Conservation Strategy available at http://www.fws.gov/sacramento/EACCS/Documents/080228_Species_Evaluation_EACCS.pdf

05/28/2009 15:16 FAX 18584874299 DFG R5 Southcoast Region 012/018

- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code § 2050 *et seq.*). A species, subspecies, or variety of plant is **endangered** when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors. A plant is **threatened** when it is likely to become endangered in the foreseeable future in the absence of protection measures.
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 *et seq.*). A plant is **rare** when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.
- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
  - Species considered by the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (Lists 1B and 2);
  - Species listed by CNPS as plants about which more information is needed to determine their status (List 3) or plants of limited distribution (List 4) that may warrant consideration on the basis of local significance or recent biological information;
  - Species included on the California Natural Diversity Database's (CNDDB) *Special Plants, Bryophytes, and Lichens List* (California Department of Fish and Game 2008)[3].
- Considered **a locally significant species**, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species on the outer limits of its known range, a rediscovery, or a species associated with an unusual soil type.

Special status natural communities are communities that are of highly limited distribution statewide or within a county or region and are often vulnerable to environmental effects of proposed projects. These communities may or may not contain special status species or their habitat. The most current version of the Department's *List of California Terrestrial Natural Communities*[4] provides the names and status of these communities.

BOTANICAL SURVEYS

It is appropriate to conduct a botanical field survey when:

- Natural (or naturalized) vegetation occurs on the site, and it is unknown if special status plants or natural communities occur on the site, and the project has the potential for direct or indirect effects on vegetation; OR
- Special status plants or natural communities have historically been identified on or in proximity to the project site; OR
- Special status plants or natural communities occur on sites with similar physical and biological properties as the project site.

Botanical surveys should be conducted prior to the commencement of any activities that may modify vegetation, such as clearing, mowing, or ground-breaking activities.

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[3] As per the DFG or Biodiversity Data Branch (BDB) or current online published lists available at: http://www.dfg.ca.gov/biogeodata

[4] http://www.dfg.ca.gov/biogeodata/cnddb

1. SURVEY OBJECTIVES

Field surveys should be conducted in a manner that will locate any special status species as well as any special status natural communities that may be present. Surveys should be **floristic in nature,** meaning that every plant taxon that occurs on site is identified to the species, subspecies, or variety necessary to determine rarity and listing status. "Focused surveys" that are limited to habitats known to support special status species or are restricted to lists of likely potential species are not considered floristic in nature and are not adequate to identify all plant taxa on site to the level necessary to determine rarity and listing status. A complete list of plants and natural communities that occur on the site should be included in every botanical survey report. An indication of the prevalence the species and communities on the site is also useful.

2. SURVEY PREPARATION

Before field surveys are conducted, relevant botanical information in the general project area should be compiled to provide a regional context for the investigators. Generally, vegetation and habitat types potentially occurring in the project area should be identified based on biological and physical properties of the site and surrounding ecoregion[5], unless a larger assessment area is appropriate. A list of special status plants with the potential to occur within these vegetation types should then be developed. This list can serve as a tool for the investigators and facilitate the use of reference sites; however, special status plants on site might not be limited to those on the list. Field surveys and subsequent reporting should be comprehensive and floristic in nature and not restricted to or focused only on this list. The list of potential special status species, and the list of references used to compile the background botanical information for the site, should be included in the survey report.

3. FIELD SURVEY METHOD

Surveys should be conducted using **systematic field techniques** in all habitats of the site to ensure thorough coverage of potential impact areas. The level of effort required per given area and habitat is dependent upon the vegetation and its overall diversity and structural complexity, which determines the distance at which plants can be identified. Surveys should be conducted by walking over the entire site to ensure thorough coverage, noting all plant taxa observed. The level of effort should be sufficient to provide comprehensive reporting. For example, one person-hour per eight acres per survey date is needed for a comprehensive field survey in a grassland with medium diversity and moderate terrain[6], with additional time allocated for species identification.

4. SURVEY EXTENT

Surveys should be comprehensive **over the entire site**, including areas that will be directly or indirectly impacted by the project. Surveys should not be restricted to known the California Natural Diversity Data Base (CNDDB) rare plant locations.

5. TIMING AND NUMBER OF VISITS

Surveys should be conducted in the field at the time of year when species are both evident and identifiable. Usually, this is during flowering or fruiting. Visits should be spaced throughout the growing season to accurately determine what plants exist on site. Many times this may involve multiple visits to the same site (e.g., in early, mid, and late-season for flowering plants) to capture the floristic diversity at a level necessary to determine if special status plants occur[7]. The timing and number of visits are determined by geographic location, the natural communities present, and the weather patterns of the year(s) in which the surveys are conducted.

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5 Ecological Subregions of California, available at http://www.fs.fed.us/r5/projects/ecoregions/toc.htm

6 Adapted from U.S. Fish and Wildlife Service kit fox survey guidelines available at www.fws.gov/sacramento/es/documents/kitfox_no_protocol.pdf

7 U.S. Fish and Wildlife Service Survey Guidelines available at http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/botanicalinventories.pdf

6. REFERENCE SITES

When special status plants are known to occur in the type(s) of habitat present in the project area, reference sites (nearby accessible occurrences of the plants) should be observed to determine whether those species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community.

7. SPECIAL STATUS PLANT OBSERVATIONS

The following information should be recorded for locations of each special status plant detected during a field survey of a project site.

- A map showing the species distribution as it relates to the proposed project that includes a delineation of any unoccupied potential habitat;
- The specific site characteristics of occurrences, such as habitat and microhabitat, structure of vegetation, associated species, topographic position, aspect, hydrological characteristics, soil type and texture, soil parent material, and land use/management history;
- A detailed map (1:24,000 or larger) and specific location data for each special status plant population found. Population boundaries should be marked as accurately as possible;
- The number of individuals in each special status plant population as counted (if population is small) or estimated (if population is large);
- If applicable, information about the percentage of individuals in each life stage such as seedlings vs. reproductive individuals;
- The number of individuals of the species per unit area, identifying areas of high, medium and low density of the species over the project site;
- The amount and distribution of occupied and unoccupied suitable habitat;
- Digital images of the target species and representative habitats to support information and descriptions; and
- If the species is associated with wetlands, a description of the direction of flow and integrity of surface or subsurface hydrology; if the species is affected by adjacent off-site hydrological influences, a description of these factors.

8. USE OF EXISTING SURVEYS

For some sites, floristic inventories or special status plant surveys may already exist. Additional surveys may be necessary for the following reasons:

- Surveys are not current (e.g., within the last five years for forested areas[8]); or
- Surveys were conducted in natural systems with frequent annual fluctuations (e.g., vernal pools); or
- Surveys are not comprehensive in nature; or
- Land use, physical conditions of the site, or climatic conditions have changed since the last survey was conducted[8]; or
- Changes in vegetation or species distribution may have occurred since the last survey was conducted, due to habitat alteration, fluctuations in species abundance, or colonization from seed dispersal or seed bank exposure.

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[8] "Guidelines for Conservation of Sensitive Plant Resources Within the Timber Harvest Review Process and During Timber Harvesting Operations", available at https://r1.dfg.ca.gov/portal/Portals/12/THPBotanicalGuidelinesJuly2005.pdf

[9] U.S. Fish and Wildlife Service Survey Guidelines available at http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/botanicalinventories.pdf

9. NEGATIVE SURVEYS

Adverse conditions may prevent investigators from determining the presence of, or accurately identifying, some species in potential habitat of target species. Disease, drought, predation, or herbivory may preclude the presence or identification of target species in any given year. Investigators should discuss such conditions in the report.

The failure to locate a known special status plant occurrence during one field season does not constitute evidence that this plant occurrence no longer exists at this location, particularly if adverse conditions are present. Visits to the site in more than one year are needed to substantiate a negative survey. For example, surveys in a number of years may be necessary if the species is an annual plant known not to germinate every year. To further substantiate negative findings for a known occurrence, a visit to a nearby reference site may ensure that the timing of the survey was accurate.

REPORTING AND DATA COLLECTION

For comprehensive, systematic surveys where no special status species are determined to be present, reporting and data collection responsibilities for investigators remain as described below, excluding specific occurrence information.

10. FIELD SURVEY FORMS

When a special status plant or natural community is located, a California Native Species (or Community) Field Survey Form[10] or equivalent written report, accompanied by a copy of the relevant portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the CNDDB. Locations documented by use of global positioning systems (GPS) should be presented in map and digital form. Data submitted in digital form must include the datum[11] in which it was collected. If a previously undescribed, but suspected special status natural community, occurs on the site, it should be documented with a Rapid Assessment or Relevé form[12] and submitted with the CNDDB form.

11. VOUCHER COLLECTION

Voucher specimens provide verifiable documentation of species presence and identification as well as a public record of conditions. This information is vital to all conservation efforts. Voucher collections should be conducted in a manner that is consistent with conservation ethics, and is in accordance with applicable state and federal permit requirements. Voucher collections of special status species (or suspected special status species) should be made only when such actions would not jeopardize the continued existence of the population or species.

Voucher specimens should be deposited at an indexed regional herbarium[13] no later than 60 days after the collections have been made. Digital imagery can be used to supplement plant identification and document habitat. All relevant permittee names and permit numbers should be recorded on specimen labels. A collecting permit issued by the Habitat Conservation Branch of DFG is required prior to the collection of State-listed plant species.

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10 http://www.dfg.ca.gov/biogeodata

11 NAD83, NAD27 or WGS84

12 http://www.dfg.ca.gov/biogeodata/cnddb

13 For a complete list of indexed herbaria, see: Holmgren, P., N. Holmgren and L. Barnett. 1990. Index Herbariorum, Part 1: Herbaria of the World. New York Botanic Garden, Bronx, New York. 693 pp. Or: http://www.nybg.org/bsci/ih/ih.html

12. BOTANICAL SURVEY REPORTS

Adequate information about special status plants and natural communities present in a project area will enable reviewing agencies and the public to effectively evaluate potential impacts to special status plants or natural communities[14] and will guide the development of minimization or mitigation measures. Reports of botanical field surveys should be included with project environmental documents, and should contain the following information:

a. Project and site description

- A description of the proposed project;
- A map of the project location and study area that identifies landscape features and includes a north arrow and bar scale;
- A written description of the biological setting; and
- A vegetation map that uses the National Vegetation Classification System[15] (e.g., *A Manual of California Vegetation*) and highlights any special status natural communities. If another vegetation classification system is used, the report should reference the system, provide the reason for its use, and provide a crosswalk to the National Vegetation Classification System.

b. Detailed description of survey methodology and results

- Dates of field surveys, name of field investigator(s), and total person-hours spent on field surveys.
- Description of reference site(s), if visited, and phenological development of special status plant(s).
- A list of all taxa occurring on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are a special status species.
- Detailed data and maps for all special plants detected. Information specified above in Item 7, Special Status Plant Observations, and Item 10, Field Survey Forms, should be provided for locations of each special status plant detected.
- Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms should be sent to CNDDB and may be included in the environmental document as an Appendix. It is not necessary to submit entire environmental documents to the CNDDB.
- References cited, list of potential special status species (see Item 2, Survey Preparation), persons contacted, herbaria visited, and the location of voucher specimens.

c. Assessment of potential impacts

- A map showing the distribution of special status plants or natural communities, in relation to proposed activities.
- A discussion of the significance of special status plant populations in the project area considering nearby populations and total species distribution.
- A discussion of direct, indirect, and cumulative impacts to the plants and natural communities.
- A discussion of the degree of impact, if any, of the proposed project as it relates to unoccupied potential habitat of the species.
- Immediacy of potential impacts.
- Recommended measures to avoid or minimize, or mitigate impacts.

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[14] As per the DFG or Biodiversity Data Branch (BDB) or current online published guidelines. For Timber Harvest Plans (THPs) please refer to the "Guidelines for Conservation of Sensitive Plant Resources Within the Timber Harvest Review Process and During Timber Harvesting Operations", available at https://r1.dfg.ca.gov/portal/Portals/12/THPBotanicalGuidelinesJuly2005.pdf

[15] http://biology.usgs.gov/npsveg/nvcs.html

QUALIFICATIONS

Botanical consultants should possess the following qualifications:

- Knowledge of plant taxonomy and natural community ecology;
- Familiarity with the plants of the area, including special status species;
- Experience conducting floristic field surveys or experience with floristic surveys conducted under the direction of an experienced surveyor;
- Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
- Experience with analyzing impacts of development on native plant species and natural communities.

SUGGESTED REFERENCES

Bonham, C.D.1988. Measurements for Terrestrial Vegetation John Wiley and Sons, Inc.

California Native Plant Society. Inventory of Rare and Endangered Plants of California

California Natural Diversity Database. Most recent version. Special Vascular Plants, Bryophytes and Lichens List. Updated quarterly. Available at www.dfg.ca.gov

Elzinga, C.L., D.W. Salzer, and J. Willoughby, 1998, "Measuring and Monitoring Plant Populations," U.S. Dept. of the Interior, Bureau of Land Management.

Mueller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. John Wiley and Sons, Inc.

Sawyer J. and T. Keeler-Wolf. 2005. A Manual of California Vegetation.

U.S. Fish and Wildlife Service, Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed Plants on the Santa Rosa Plain.

U.S. Fish and Wildlife Service, Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed Proposed and Candidate Plants.

Van der Maarel, Eddy. 2005. Vegetation Ecology.

Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi
Acting Director
9211 Oakdale Avenue
Chatsworth, California 91311

Arnold Schwarzenegger
Governor

May 22, 2009

Ms. Christina Tran
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

NOTICE OF PREPARATION FOR THE AV SOLAR RANCH ONE PROJECT (R2009-02239/TR071035/RCUPT200900026/RENVT200900027) DRAFT ENVIRONMENTAL IMPACT REPORT, SCH NO. 2009041145

Dear Ms. Tran:

The Department of Toxic Substances Control (DTSC) has received your Notice of Preparation (NOP) of a draft Environmental impact Report (EIR) for the project mentioned above.

Based on the review of the document, DTSC comments are as follows:

1. The Initial Study of the NOP states that majority of the Project site (Site) had been used for agricultural production since 1940 to 2004. Due to the historical uses at the Site, DTSC recommends environmental investigation to evaluate whether conditions at the Site pose a threat to human health or the environment.

2. All environmental investigation and/or remediation should be conducted under a Work Plan which is approved by a regulatory agency who has jurisdiction to oversee hazardous waste cleanups. Proper investigation and remedial actions should be conducted at the Site prior to project implementation.

3. If during implementation of the project, soil contamination is suspected, construction in the area should stop, and appropriate health and safety procedures should be implemented. If it is determined that contaminated soils exist, the draft EIR should identify how any required investigation and/or remediation will be conducted, and which government agency will provide regulatory oversight.

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DTSC provides guidance for Preliminary Endangerment Assessment preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP please visit DTSC's web site at www.dtsc.ca.gov. If you would like to meet and discuss this matter further, please contact me at (818) 717-6550.

Sincerely,

Alberto T. Valmidiano
Project Manager
Brownfields and Environmental Restoration Program – Chatsworth Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Office of Planning and Environmental Analysis
CEQA Tracking Center
Department of Toxic Substances Control
1001 "1" Street, P.O. Box 806
Sacramento, California 95812-0806

California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Secretary for
Environmental Protection

Victorville Office
14440 Civic Drive, Suite 200, Victorville, California 92392
(760) 241-6583 • Fax (760) 241-7308
http://www.waterboards.ca.gov/lahontan

Arnold Schwarzenegger
Governor

June 1, 2009

File: Solar Projects

Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

COMMENTS ON NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED AV SOLAR RANCH ONE PROJECT IN UNINCORPORATED LOS ANGELES COUNTY, COUNTY PROJECT NO. R2009-02239, RCUPT200900026, RENVT200900027, SCH # 2009041145

California Regional Water Quality Control Board, Lahontan Region (Water Board) staff has reviewed a Notice of Preparation (NOP) for an Environmental Impact Report (EIR), for the proposed AV Solar Ranch One Project (Project), dated April 29, 2009. Our comments on the NOP of the EIR are submitted in compliance with California Environmental Quality Act (CEQA) Guidelines Section 15096, which requires CEQA responsible agencies to specify the scope and content of the environmental information that is germane to their statutory responsibilities.

The State Water Resources Control Board (State Board) and the Water Board regulate discharges which could affect the quality of waters of the State in order to protect the chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affects its use. Our comments in this letter ask the County to evaluate general and specific environmental effects of the Project.

Proposed Project Description

The proposed Project consists of a 230-megawatt solar photovoltaic (PV) facility (Facility) on 2,100 acres of primarily vacant land located in northern Los Angeles County and a 3.5-miles long, 230-kilovolt, transmission-line corridor (Corridor) for interconnecting the electrical output of the Facility to the regional transmission system. The Corridor is adjacent to the Antelope Valley Water Bank Project area located immediately to the east.

The NOP of the EIR indicates that approximately 36 acre-feet per year of water will be required during construction, and approximately 12 acre-feet per year of water will be required by the facility for domestic and process water. The primary water supply will be from two existing on-site groundwater production wells. The Project will utilize the existing wells and/or one or more new wells that may be constructed in the future.

Domestic wastewater will be treated and disposed using a conventional septic tank system and leachfield.

Receiving Waters

The receiving waters that could be affected by the Facility are the Antelope Valley Groundwater Basin and four ephemeral washes. Additionally, any other waters of the State crossed by the 3.5-miles long Corridor (e.g., utility lines), outside of the 2,100 acre Facility, would be considered potential receiving waters.

Comments

1. The project proponent must determine whether the local surface waters and ephemeral drainages are jurisdictional or non-jurisdictional waters of the United States. A number of activities associated with the Project may require permits issued by the State Board including:

   - Discharge of fill material - Clean Water Act (CWA) §401 water quality certification for federal jurisdictional waters; or Waste Discharge Requirements for non-federal non-jurisdictional waters, and
   - Land disturbance - CWA § 402(p) stormwater permit (Construction Stormwater Permit)

2. The EIR for the Project must specifically identify features for both the short-term (construction) and the post-construction periods that will control stormwater on-site or prevent pollutants from non-point sources from entering and degrading groundwater. The foremost method of reducing impacts to watersheds from urban development is "Low Impact Development" (LID), the goals of which are maintaining a landscape functionally equivalent to predevelopment hydrologic conditions and minimal generation of nonpoint source pollutants. LID results in less surface runoff and less pollution routed to receiving waters. Principles of LID include:

   - Maintaining natural drainage paths and landscape features to slow and filter runoff and maximizing groundwater recharge,
   - Reducing the impervious cover created by development and the associated transportation network, and
   - Managing runoff as close to the source as possible.

   We understand that LID development practices that would maintain aquatic values could also reduce local infrastructure requirements and could benefit energy conservation, air quality, open space, and habitat. Many planning tools exist to implement the above principles, and a number of recent reports and manuals provide specific guidance regarding LID. These principles can be incorporated into the proposed project design.

   Natural drainage patterns must be maintained and/or restored to the extent feasible. Designs that use vegetated areas for stormwater management and infiltration on-site are preferable and are the most effective means of filtering sediment and pollution and regulating the volume of runoff from land surfaces to adjacent washes.

   Minimize disturbance activities (such as preservation of vegetation and grade) to protect and preserve the natural drainage system, which emulate and preserve the natural hydrologic cycle, moving stormwater slowly over large permeable surfaces to allow it to

percolate into the ground. In addition, preservation and minimum-disturbance activities may be more cost effective than revegetation practices or structural controls, especially long-term. Design features of future development should be incorporated to ensure that runoff is not concentrated by the proposed Project, thereby causing downstream erosion. Storm drain systems do not promote the same beneficial uses as a natural ecosystem.

3. The Project should analyze and examine the use of recycled water for domestic and industrial uses as a replacement, or a supplement, to the use of fresh water supplied by on-site groundwater wells. The State Board's Policy with Respect to Water Reclamation in California (Resolution No. 77-1) states that the State Board and Regional Boards shall encourage reclamation and reuse of water in water-short areas. Reclaimed water can replace, or supplement, the use of fresh water.

4. Ensure that global climate change is addressed in the Initial Study / Initial Study Checklist according to Assembly Bill 32 (AB 32, 2006), the Global Warming Solutions Act of 2006. The Project should evaluate the use of recycled water for domestic and industrial uses as a means to meet the objectives of AB 32.

5. Ensure that the document includes a narrative description of how the Project will conduct panel washing. Additionally, please discuss if, or how, the Project will treat water supply for panel washing and dispose of wastewater.

6. The NOP indicates that the facility is proposing a septic tank disposal system for the treatment and disposal of domestic wastewater. The proposed Project does not provide enough information regarding the Water Board's 500-gallon per acre per day limitation on the discharge to septic tank disposal systems. The discharge of any material other than domestic wastewater to an on-site septic tank wastewater disposal system is prohibited unless a Report of Waste Discharge is filed with the Water Board and a permit or waiver is issued.

7. All mitigation measures included in the EIR should be site-specific in nature and should have adequate detail. All mitigation measures required for the project must be specifically described and included in the project description. It is not sufficient to state that mitigation will be accomplished through obtaining and complying with permits, unless such permits for the specific project already exist that prescribe the required mitigation.

8. The Water Board has adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which contains prohibitions, water quality standards, and policies for implementation of those standards. The Basin Plan is available on line at the Water Board's Internet site at: < http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml>. The Project must comply with all applicable water quality standards and prohibitions of the Basin Plan.

Water Board staff requests that these comments be addressed in the EIR. If you have any questions or comments, please contact me directly at (760) 241-7391, at: jkoutsky@waterboards.ca.gov, or Patrice Copeland, Senior Engineering Geologist at (760) 241-7404, at: pcopeland@waterboards.ca.gov.

Joseph J. Koutsky, PE
Water Resource Control Engineer

cc: State Clearinghouse Office of Planning and Research, SCH # 2009041145

FILE: S:\Solar Projects\AV Solar Ranch One Project.doc

NATIVE AMERICAN HERITAGE COMMISSION
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SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

MAY 11 2009

May 7, 2009

Ms. Christina Tran, Project Planner
LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING
320 West Temple Street
Los Angeles, CA 90012

Re: SCH#2009041145; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for **The AV SOLAR ONE Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027)** located in the Antelope Valley, the planned Whirlwind substation of Southern California Edison and proposed 1.5 transmission line to a SCE 230kV inter-connection; Los Angeles County, California

Dear Ms. Tran:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 designated to protect California's Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS) for possible 'recorded sites' in locations where the development will or might occur.. Contact information for the Information Center nearest you is available from the State Office of Historic Preservation (916/653-7278)/ http://www.ohp.parks.ca.gov. The record search will determine:

- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ The Native American Heritage Commission (NAHC) performed:

* A Sacred Lands File (SLF) search of the project 'area of potential effect (APE)': The results: No known Native American Cultural Resources were identified within one-half mile of the 'area of potential effect' (APE)..; However, there are Native American cultural resources in close proximity to the APE. The NAHC urges caution with any ground-breaking activity. Also, the NAHC SLF is not exhaustive and local tribal contacts should be consulted from the attached list and the there are Native American cultural resources in close proximity..

- The NAHC advises the use of Native American Monitors, also, when professional archaeologists or the equivalent are employed by project proponents, in order to ensure proper identification and care given cultural resources that may be discovered. The NAHC, FURTHER, recommends that contact be made with Native American Contacts on the attached list to get their input on potential IMPACT of the project (APE) on cultural resources.. In some cases, the existence of a Native American cultural resources may be known only to a local tribe(s) or Native American individuals or elders.
- √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f).

In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.

- Again, a culturally-affiliated Native American tribe may be the only source of information about a Sacred Site/Native American cultural resource.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

√ Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

Native American Contacts
Los Angeles County
May 6, 2009

Charles Cooke
32835 Santiago Road
Acton , CA 93510

(661) 733-1812 - cell
suscol@intox.net

Chumash
Fernandeno
Tataviam
Kitanemuk

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm. 403
Los Angeles , CA 90020
(213) 351-5324
(213) 386-3995 FAX

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks , CA 91362

805 492-7255
(805) 558-1154 - cell
folkes9@msn.com

Chumash
Tataviam
Fe†rnandeño

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez
981 N. Virginia
Covina , CA 91722
(626) 339-6785

Yowlumne
Kitanemuk

San Manuel Band of Mission Indians
James Ramos, Chairperson
26569 Community Center Drive
Highland , CA 92346
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(909) 864-3724 - FAX
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Serrano

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
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Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

Fernandeno Tataviam Band of Mission Indians
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Tataviam

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ndnrandy@hotmail.com
(805) 905-1675 - cell

Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2009041145; CEQA Notice of Preparation (NOP) and ddraft Environmental Impact Report (DEIR) for the AV SOLAR One Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027); located in the Antelope Valley of Northeast Los Angeles County, California.

Native American Contacts
Los Angeles County
May 6, 2009

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Department
26569 Community Center. Drive
Highland , CA 92346
abrierty@sanmanuel-nsn.gov
(909) 864-8933 EXT-3250
(909) 649-1585 - cell
(909) 862-5152 Fax

Serrano

Kern Valley Indian Council
Robert Robinson, Historic Preservtion Officer
P.O. Box 401
Weldon , CA 93283
brobinson@mchsi.com
(760) 378-4575 (Home)
(760) 549-2131 (Work)

Tubatulabal
Kawaiisu
Koso
Yokuts

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2009041145; CEQA Notice of Preparation (NOP) and ddraft Environmental Impact Report (DEIR) for the AV SOLAR One Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027); located in the Antelope Valley of Northeast Los Angeles County, California.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

April 30, 2009

To: Reviewing Agencies

Re: AV Solar Ranch One Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027)
SCH# 2009041145

Attached for your review and comment is the Notice of Preparation (NOP) for the AV Solar Ranch One Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027) draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Christina Tran
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Assistant Deputy Director & Senior Planner, State Clearinghouse

MAY - 7 2009

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2009041145
Project Title AV Solar Ranch One Project (R2009-02239/TR071035/RCUPT200900026/RENVT200900027)
Lead Agency Los Angeles County

Type NOP Notice of Preparation

Description The proposed project would consist of a 230-megawatt solar photovoltaic (PV) facility on 2,100 acres. Major project components include PV panel arrays, an electrical substation, and a 20,000 sf Operations and Maintenance building with associated parking. The project also includes a 230-kilovolt (kV) transmission line for interconnecting the electrical output of the Project to the regional transmission system. The proposed transmission line is approximately 3.5 miles long, and will interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the Project site in southern Kern County. An alternate 1.5-mile long transmission line would interconnect the project to SCE's existing 230 kV Antelope-Magunden transmission line east of the site.

Lead Agency Contact

Name Christina Tran
Agency Los Angeles County Department of Regional Planning
Phone (213) 974-6461 **Fax**
email
Address 320 West Temple Street
City Los Angeles **State** CA **Zip** 90012

Project Location

County Los Angeles
City
Region
Cross Streets SR-138 and 170th Street
Lat / Long
Parcel No.
Township 8N **Range** 14,15W **Section** **Base** SBB&M

Proximity to:

Highways SR - 138
Airports
Railways
Waterways Unnamed drainage courses
Schools
Land Use Residential ranch development/A-2-5 and A-1-2/Non Urban 1

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Public Services; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife; Growth Inducing; Landuse

Reviewing Agencies Resources Agency; Department of Conservation; California Energy Commission; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 7; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 6 (Victorville); Department of Parks and Recreation

Date Received 04/30/2009 **Start of Review** 04/30/2009 **End of Review** 05/29/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Los Angeles

SCH# 2009041145

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Mike Sotelo
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [x] **Dept. of Conservation**
  Rebecca Salazar
- [x] **California Energy Commission**
  Dale Edwards
- [ ] **Cal Fire**
  Allen Robertson
- [ ] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board**
  Jon Yego
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [ ] **Fish & Game Region 4**
  Julie Vance
- [x] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Gabrina Getchel
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Linda Flack
- [ ] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [x] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Scott Loetscher
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [ ] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [x] **Caltrans, District 7**
  Elmer Alvarez
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Chris Herre

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Douglas Ito
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [x] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 03/24/2009

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Antelope Valley College

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Southern California Edison

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Art Wallace

* Director Emeritus

April 21, 2009

MAY 18 2009

Mr. Jack Pigott, Director of Development
NextLight Renewable Power
101California Street, Suite 2450
San Francisco, CA 94111

Re: Support for AV Solar Ranch One

Dear Mr. Pigott,

After review by our organization, the Board of Directors of the Antelope Valley Board of Trade has voted to support NextLight Renewable Power's proposed AV Solar Ranch One project (AVSR1).

As an economic development organization, the Antelope Valley Board of Trade understands the need to expand the region's industrial base, while striving to meet California's ambitious environmental goals. We believe that the 230 megawatt AVSR1 project represents a positive step forward for both NextLight Renewable Power and the Antelope Valley in delivering clean, renewable energy to the grid and creating sustainable economic growth. In addition, the three hundred construction jobs and up to twenty permanent positions, will continue to develop "green" industry employment opportunities for the regional workforce.

For over fifty years the Antelope Valley Board of Trade's mission has been "to promote diverse business and industry, quality infrastructures, and a strong legislative voice for the benefit of our members and the greater Antelope Valley." It is with this mission in mind that we are pleased to support the Antelope Valley Solar Ranch One project. We look forward to working with NextLight Renewable Power to expand "green" job opportunities and promote a sustainable solar energy project that will contribute to a healthy economic climate for businesses and families throughout Antelope Valley.

Respectfully,

Dr. Jackie Fisher
President

cc: Los Angeles County Supervisor Michael D. Antonovich, 5th District
Los Angeles County Department of Planning

548 West Lancaster Blvd., Suite 103 • Lancaster, CA 93534 • (661) 942-9581 • Fax (661) 723-9279
Email: info@avbot.org • Website: www.avbot.org

PALMDALE

a place to call home

JAMES C. LEDFORD, JR.
Mayor

STEVEN D. HOFBAUER
Mayor Pro Tem

MIKE DISPENZA
Councilmember

TOM LACKEY
Councilmember

38300 Sierra Highway

Palmdale, CA 93550-4798

Tel: 661/267-5100

Fax: 661/267-5122

TDD: 661/267-5167

May 21, 2009

Ms. Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

RE: Notice of Preparation for AV Solar Ranch One Project, a 230 MW Solar Photovoltaic Facility on 2,100 Acres Located in Northern Los Angeles County Along State Route 138 (County Project No. R2009-02239)

Dear Ms. Tran:

Thank you for the opportunity to review and reply to your Notice of Preparation. The Planning Department staff has reviewed the documents, including the Initial Study and attached maps. At this time, the City of Palmdale has no comment on the proposed project.

If you have any questions regarding this matter, please contact Susan Koleda or me at (661) 276-5200.

Sincerely

Asoka Herath
Director of Planning

AH:sk

Auxiliary aids provided for communication accessibility upon 72 hours' notice and request.

MAY 26 2009

DESERT AND MOUNTAIN CONSERVATION AUTHORITY
44811 North Date Avenue, Suite G
Lancaster, California 93534
Phone (310) 589-3200•Fax (310) 589-2408

July 17, 2009

AUG 11 2009

Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Notice of Preparation Comments AV Solar Ranch One Project
Fairmont Buttes Area - Tract Map No. 071035

Dear Ms. Tran:

The Desert and Mountain Conservation Authority (DMCA) is a joint power authority comprised of the Antelope Valley Resource Conservation District and the Santa Monica Mountains Conservancy.

The proposed project would for all intents and purposes eliminate approximately 2,000 acres of open space and habitat in a rural portion of the western Antelope Valley that, as a whole, supports numerous sensitive animal species and a full complement of common wildlife elements. The recently released Draft Environmental Impact Report (DEIR) for the adjacent Fairmont Buttes Motorsports Park identifies the subject area as having the potential to support almost a dozen sensitive species. That DEIR is incorporated in this letter by reference. The subject project also links two Significant Ecological Areas (SEAs). According to the Initial Study, a minimum of 700,000 cubic yards of grading are necessary to accomplish the proposed project. The DEIR must show what areas would be graded and scraped of vegetation completely and what areas would experience no soil surface disturbance.

The DMCA recognizes that the regional benefit of green energy projects warrant strong consideration for statements of overriding considerations. However, all projects must strike a balance between habitat preservation and elimination. If the proposed project is approved with the direct permanent loss of 2,000 acres of habitat and no additional permanent set aside of land, an unfortunate, irreversible precedent would be set. More specifically, the approved ratio of protected to disturbed land from the subject project may be politically and judicially difficult to adjust on future solar projects from there on in time. For perspective, virtually all residential tracts even in the Antelope Valley set aside one third of the tract map area as permanent open space.

The majority of the subject land may have been farmed in the past few decades but it has a high percentage of native perennial vegetation coverage and is basically surrounded by SEA on all sides. To the average eye, passing motorists would have no idea that the landscape was not in its full wild state. Conducting a full overview of the site with the current. winter of 2009, Google Earth aerial photography, shows that virtually every square meter of the site supports vegetation cover that could support numerous avian, reptile, and mammal species. Not only should all projects contribute some permanent open space to be consistent with good planning and the public trust doctrine, but both on and offsite SEA areas should be surrounded by some amount of buffer land.

The proposed project falls well short of all of these ecological and planning objectives. The proposed project, in combination with even the reduced project alternative for the Fairmont Buttes Motor Sports Park, would substantially diminish the connectivity and sustainability of the Fairmont-Antelope Buttes SEA 57 and Joshua Tree Woodland Habitat SEA. There is a high probability that the subject solar project will ultimately seek to expand to the south thus further reducing habitat connectivity. Such expansion is probable because the land use will be established, the electrical distribution infrastructure will be in, and residential development would not be desirable next to the large solar fields. The DEIR must address this potential future project expansion and include relevant mitigation measures to address the potential effects of future project expansion. The DEIR must also disclose if the applicant, or its affiliated business partners, currently have options, easements, or fee ownership of any parcels contiguous to the project boundary.

The California Environmental Quality Act (CEQA) requires lead agencies to reduce significant impacts when feasible. The DEIR for the Fairmont Buttes Motor Sports Park concludes that the loss of over 160 acres of habitat will result in an unavoidable significant adverse ecological impact even when balanced with the dedication of an additional 160 acres of high quality permanent open space dedication. Even with a 1:1 ratio of permanent open space to development that project would still result in significant ecological impacts.

Much of the Motorsports Park's disturbance areas are retired farmland similar to much of the 2100 acres of the subject project. Only a trained eye can distinguish the land as former farmland. A high density of low lying native desert shrubs occupy the site and contribute significantly to the ecology of the surround SEAs and the southwestern Antelope Valley ecosystem as a whole. The proposed project provides less than 100 acres of permanent deed restricted unfenced open space which is a 1:20 ratio.

DEIR Alternatives

To be consistent with CEQA, the DEIR must include at least two economically feasible alternatives that provide substantial permanent set asides of natural land. The DMCA suggests the inclusion of a project alternative that equals the 1:1 open space to development ration of the proposed motorsports park and also the following project alternative.

In addition to providing more permanent habitat within the subject 2100 acres or in the immediately surrounding area, a project that better avoids significant ecological impacts must provide both a greater buffer along Broad Canyon Wash (which occupies the southernmost portion of the site) and a wider east-west habitat linkage where the current artificial drainage system is proposed for Drainage A.

The DEIR should include a "Reduced Project-Natural Resource Buffer Alternative. This alternative must include the following project modifications:

> A minimum 2000-foot-wide permanently dedicated open space area along the southern project boundary along Broad Canyon Wash (Drainage C) to integrate with SEA 57.
>
> The reconfigured drainage channel for Drainage A must be widened to a minimum of 500–feet-wide from 250 feet.
>
> Minimum development and fencing setback from the intersection of Avenue D and 170th Street shall be 250 to create a wide, high quality habitat funnel for wildlife to be drawn to, and to enter, the proposed Drainage A wildlife corridor.
>
> No portion of an SEA is disturbed along the northern project boundary.
>
> All project structures except roads are setback a minimum of 250 feet from any existing SEA areas.
>
> All of the above dedicated open space areas shall be 100 percent free of all fencing and lighting.

All of the above dedicated open space areas except those directly associated with Drainage A shall be dedicated in fee to a public park or conservation agency to ensure adequate management and protection.

Those fee simple dedication areas must be free of all liens and encumbrances and be required prior to the issuance of any permits.

The project shall provide for a permanent funding mechanism for the subject public agency to manage the dedicated open space. Said funding shall not be less than $8,000 annually and shall include an inflation adjustor. That sum would provide for the full costs of one single hour ranger visit per week and some incidental expenses such as sign replacement and dump fees if necessary.

Analyze Views From Adjacent Santa Monica Mountains Conservancy Land

The DEIR must adequately analyze potential adverse viewshed impacts from the 160 acres of State-owned Santa Monica Mountains Conservancy land that straddles the high point of Fairmont Buttes. There currently is no official public trail to the high point of this parkland cluster, but such a trail has long been contemplated. USGS topographical maps and aerial photography clearly show a dirt road system originating to east and leading to the top of the buttes to the Conservancy's property. It is probable that portions of this historic dirt road system will comprise a public trails system to the subject Conservancy property in the next five to ten years. Such a trail may lead to the State Park property, to an existing paved or paper public street, or to the Department of Water and Power easement located just to the east. In addition, the DMCA just acquired a small parcel located between the State Park and the Conservancy land.

After Approval Management Plans Constitute Deferred Mitigation

The DEIR will be deficient if it does not include completed, or well developed draft, General Habitat Mitigation, Lighting, and Burrowing Owl management plans. Our staff has been working with consultants for an Antelope Valley high school project that has needed burrowing owl habitat for over two years. Hundreds of consultant hours and scores of public staff hours have gone into finding suitable offsite habitat to fulfill modest mitigation requirements, without success. Such mitigation implementation locations much be reasonably described in the DEIR.

Animal Friendly Perimeter Fencing

If the majority of perimeter fencing for any project alternative does not provide space for bobcats, badgers and coyotes to shimmy under, the project's ecological impacts would increase significantly. The DEIR must specifically tackle this problem in detail. More specifically the DEIR must show where fencing would be wildlife permeable and what fence design would provide that permanent permeability. In addition the DEIR must include mitigation measures that specifically show which areas will have maintained large mammal permeability for the life of the project. The DEIR must include the analysis that supports the proposed plan for both permeable and impermeable fence areas based on ecosystem biological parameters and on the needs of target species.

Please direct all future correspondence to Paul Edelman of our staff at the above address and by phone at 310-589-3200 ext. 128.

Sincerely

JIM DODSON
Chairperson

PLANNING DEPARTMENT

TED JAMES, AICP, Director
2700 "M" STREET, SUITE 100
BAKERSFIELD, CA 93301-2323
Phone: (661) 862-8600
FAX: (661) 862-8601 TTY Relay 1-800-735-2929
E-Mail: planning@co.kern.ca.us
Web Address: www.co.kern.ca.us/planning

RESOURCE MANAGEMENT AGENCY

DAVID PRICE III, RMA DIRECTOR
Community & Economic Development Department
Engineering & Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

June 1, 2009

File: AV Solar Ranch One Project

Los Angeles County Department of Regional Planning
Impact Analysis Section
Attn; Christina Tran
320 West Temple Street
Los Angeles, CA 90012

RE: Agency Comments – Notice of Preparation
AV Solar Ranch One Project

Dear Ms. Tran,

The Kern County Planning Department appreciates the opportunity to provide comments on the scope of the Draft Environmental Impact Report being considered for preparation for the Av Solar Ranch One Project. The proposed project is a 2100 acre site located in northern Los Angeles County that is proposed for a 230 MW solar photovoltaic facility. The project summary notes that the proposed transmission line is approximately 3.5 miles long and will interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the project site in Kern County. The following comments are provided as a Responsible Agency under Section 15381 of the revised CEQA guidelines as the applicant may seek a Franchise Agreement from Kern County for use of the 170th street right of way which will require review under CEQA. The proposed Whirlwind Substation is being permitted and sited by SCE as part of the Tehachapi Renewable Transmission Project which is intended to provide for 4,500 MW of potential wind generation in the Tehachapi Wind Resources Area, located in Kern County. Kern County has assessed the area available for private interconnection within the right of way of county roads and determined that there is not adequate space. Therefore, if this project intends to connect to the planned Whirlwind Substation, another corridor will need to be analyzed and acquired outside the ultimate road right of way of 170th street west which is shown on the circulation as a 110 foot arterial roadway. This corridor would then accommodate the private transmission line needed for the interconnection for the project. As a matter of policy Kern County will be conditioning discretionary projects to acquire and dedicate to the county an alternative energy right of way corridor along the 170th alignment for connection to the Whirlwind Substation. To date no Kern County wind projects have been conditioned for use of that particular alignment and the costs, regulations and use of the new alternative energy right of way has not been established.

The NOP mentions an alternate transmission line route along West Avenue C to the existing Antelope –Magunden transmission line. Staff recommends the use of that alternate transmission line as a more feasible option at this time for interconnect.

Kern County Planning requests to receive all notices and documents, including a copy of the Draft EIR, Notice of Availability, Response to Comments and other public hearing notices. We appreciate the opportunity to participate in the environmental review of this project. If you have any questions regarding this letter, I am available to discuss this at (661) 862-8866 or Loreleio@co.kern.ca.us.

Sincerely,

Lorelei H. Oviatt, AICP
Special Projects Division Chief

cc: Supervisor Maben
Property Management
RMA
County Counsel

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

May 7, 2009

MAY 11 2009

Ms. Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

Dear Ms. Tran

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the AV Solar Ranch One Project

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does not mean Adobe PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

It is recommended that lead agencies for projects generating or attracting vehicular trips, especially heavy-duty diesel-fueled vehicles, perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on sitting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Daniel Garcia, Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:DG:AK
LAC090501-06AK
Control Number

SOUTHERN CALIFORNIA

ASSOCIATION of GOVERNMENTS

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Keith Hanks, Azusa

Transportation
Mike Ten, South Pasadena

May 28, 2009

Ms. Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012
ctran@planning.lacounty.gov

RE: SCAG Comments on the Notice of Preparation of an Environmental Impact Report for AV Solar Ranch One [SCAG No. I20090220]

Dear Ms. Tran,

Thank you for submitting the **Notice of Preparation of an Environmental Impact Report for AV Solar Ranch One [SCAG No. I20090220]** to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372 (replacing A-95 Review). Additionally, pursuant to Public Resources Code Section 21083(d) SCAG reviews Environmental Impacts Reports of projects of regional significance for consistency with regional plans per the California Environmental Quality Act Guidelines, Sections 15125(d) and 15206(a)(1). SCAG is also the designated Regional Transportation Planning Agency and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080 and 65082.

SCAG staff has reviewed this project and determined that the proposed project is regionally significant per California Environmental Quality Act (CEQA) Guidelines, Sections 15125 and/or 15206. The proposed project is a 230-megawatt solar photovoltaic facility on 2,100 acres of primarily vacant land in northern Los Angeles County.

Policies of SCAG's Regional Transportation Plan (RTP) and Compass Growth Visioning (CGV) that may be applicable to your project are outlined in the attachment. The RTP, CGV, and table of policies can be found on the SCAG web site at: http://scag.ca.gov/igr. For ease of review, we would encourage you to use a side-by-side comparison of all SCAG policies with a discussion of the consistency, non-consistency or non-applicability of the policy and supportive analysis in a table format (example attached).

The attached policies are meant to provide guidance for considering the proposed project within the context of our regional goals and policies. We also encourage the use of the SCAG List of Mitigation Measures extracted from the RTP to aid with demonstrating consistency with regional plans and policies. **Please provide a minimum of 45 days for SCAG to review the Draft EIR and associated plans when these documents are available.** If you have any questions regarding the attached comments, please contact Bernard Lee at (213) 236-1800 or leeb@scag.ca.gov. Thank you.

Sincerely,

Jacob Lieb, Manager
Assessment, Housing & EIR

DOCS# 151941

The Regional Council is comprised of 83 elected officials representing 189 cities, six counties, five County Transportation Commissions, Imperial Valley Association of Governments and a Tribal Government representative within Southern California.

COMMENTS ON THE NOTICE OF PREPARTION OF AN ENVIRONMENTAL IMPACT REPORT FOR AV SOLAR RANCH ONE – SCAG NO. I20090220

PROJECT LOCATION

The proposed AV Solar ranch One (Project) site is located in the Antelope Valley, in unincorporated Los Angeles County, approximately 20 miles northwest of the City of Lancaster. The Project site can be accessed from Interstate 5 (I-5) or State Route 14 (SR-14) via SR-138 (West Avenue D) from the west and east, respectively. The property consists of approximately 2,100 acres, and is located within Sections 11, 13, 14, and 24 in Township 8 North, Range 15 West, and within Section 18 in Township 8 North, Range 14 West (San Bernardino Base and Meridian). This site occupies an area both north and south of SR-138, and is approximately bounded on the north by West Avenue B-8, on the south by West Avenue E, on the east by 155th Street West and on the west by 180th Street West. Most of the Project site is undeveloped or had been used for agricultural production since the 1940s, and includes a residential ranch area.

PROJECT DESCRIPTION

The proposed Project consists of a 230-megawatt (MW) solar photovoltaic (PV) facility on 2,100 acres of primarily vacant land located in northern Los Angeles County. Major project components include PV panel arrays, an electrical substation, and a 20,000 square-foot Operations and Maintenance building with associated parking. The Project also includes a 230-kilovolt (kV) transmission line for interconnecting the electrical output of the Project to the regional transmission system. The proposed transmission line is approximately 3.5 miles long, and will interconnect to Southern California Edison's (SCE) planned Whirlwind Substation north of the Project site in southern Kern County. The Project is currently planned to begin construction in the fourth quarter of 2010 and to be completed by the third quarter of 2013.

CONSISTENCY WITH REGIONAL TRANSPORTATION PLAN

Regional Growth Forecasts

The DEIR should reflect the most current SCAG forecasts, which are the 2008 RTP (May 2008) Population, Household and Employment forecasts. The forecasts for your region and subregion are as follows:

Adopted SCAG Regionwide Forecasts[1]

	2010	2015	2020	2025	2030	2035
Population	19,418,344	20,465,830	21,468,948	22,395,121	23,255,377	24,057,286
Households	6,086,986	6,474,074	6,840,328	7,156,645	7,449,484	7,710,722
Employment	8,349,453	8,811,406	9,183,029	9,546,773	9,913,376	10,287,125

Adopted NLAC Subregion Forecasts (Total)[1]

	2010	2015	2020	2025	2030	2035
Population	719,989	839,942	960,006	1,076,970	1,190,463	1,299,449
Households	215,650	253,750	293,899	325,241	355,511	380,417
Employment	193,386	218,637	234,761	253,717	273,957	293,334

Adopted NLAC Subregion Forecasts (Unincorporated Areas Only)[1]

	2010	2015	2020	2025	2030	2035
Population	194,704	244,463	294,120	342,578	389,595	434,773
Households	58,090	74,714	92,232	105,907	119,114	129,981
Employment	46,820	56,539	62,745	70,041	77,831	85,289

1. The 2008 RTP growth forecast at the regional and subregional level was adopted by the Regional Council in May 2008. City totals are the sum of small area data and should be used for advisory purposes only.

The **2008 Regional Transportation Plan (RTP)** also has goals and policies that are pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The RTP continues to support all applicable federal and state laws in implementing the proposed project. Among the relevant goals and policies of the RTP are the following:

Regional Transportation Plan Goals:

RTP G1 *Maximize mobility and accessibility for all people and goods in the region.*
RTP G2 *Ensure travel safety and reliability for all people and goods in the region.*
RTP G3 *Preserve and ensure a sustainable regional transportation system.*
RTP G4 *Maximize the productivity of our transportation system.*
RTP G5 *Protect the environment, improve air quality and promote energy efficiency.*
RTP G6 *Encourage land use and growth patterns that complement our transportation investments.*
RTP G7 *Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.*

GROWTH VISIONING

The fundamental goal of the **Compass Growth Visioning** effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. Thus, decisions regarding growth, transportation, land use, and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity. The following "Regional Growth Principles" are proposed to provide a framework for local and regional decision making that improves the quality of life for all SCAG residents. Each principle is followed by a specific set of strategies intended to achieve this goal.

Principle 1: Improve mobility for all residents.

GV P1.1 *Encourage transportation investments and land use decisions that are mutually supportive.*
GV P1.2 *Locate new housing near existing jobs and new jobs near existing housing.*
GV P1.3 *Encourage transit-oriented development.*
GV P1.4 *Promote a variety of travel choices*

Principle 2: Foster livability in all communities.

GV P2.1 *Promote infill development and redevelopment to revitalize existing communities.*
GV P2.2 *Promote developments, which provide a mix of uses.*
GV P2.3 *Promote "people scaled," walkable communities.*
GV P2.4 *Support the preservation of stable, single-family neighborhoods.*

Principle 3: Enable prosperity for all people.

GV P3.1 *Provide, in each community, a variety of housing types to meet the housing needs of all income levels.*
GV P3.2 *Support educational opportunities that promote balanced growth.*

GV P3.3 *Ensure environmental justice regardless of race, ethnicity or income class.*
GV P3.4 *Support local and state fiscal policies that encourage balanced growth*
GV P3.5 *Encourage civic engagement.*

Principle 4: Promote sustainability for future generations.
GV P4.1 *Preserve rural, agricultural, recreational, and environmentally sensitive areas*
GV P4.2 *Focus development in urban centers and existing cities.*
GV P4.3 *Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.*
GV P4.4 *Utilize "green" development techniques*

CONCLUSION

As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA. Refer to the SCAG List of Mitigation Measures for additional guidance.
The list can be found at: http://www.scag.ca.gov/igr/documents/SCAG_IGRMMRP_2008.pdf

SUGGESTED SIDE BY SIDE FORMAT - COMPARISON TABLE OF SCAG POLICIES

For ease of review, we would encourage the use of a side-by-side comparison of all SCAG policies with a discussion of the consistency, non-consistency or not applicable of the policy and supportive analysis in a table format. All policies and goals must be evaluated as to impacts. Suggested format is as follows:

The complete table can be found at: http://www.scag.ca.gov/igr/

- Click on ***"Demonstrating Your Project's Consistency With SCAG Policies"***
- Scroll down to ***"Table of SCAG Policies for IGR"***

SCAG Regional Transportation Plan Goals and Compass Growth Visioning Principles		
Regional Transportation Plan Goals		
Goal/ Principle Number	**Policy Text**	**Statement of Consistency, Non-Consistency, or Not Applicable**
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
RTP G3	Preserve and ensure a sustainable regional transportation system.	***Consistent:*** *Statement as to why* ***Not-Consistent:*** *Statement as to why* *or* ***Not Applicable:*** *Statement as to why*
Etc.	Etc.	Etc.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

June 15, 2009

IN REPLY PLEASE
REFER TO FILE: LD-1

TO: Paul McCarthy
Department of Regional Planning

Attention Christina Tran

FROM: Steve Burger
Land Development Division
Department of Public Works

NOTICE OF PREPARATION
AV SOLAR RANCH ONE PROJECT
PROJECT NO. R2009-02239
TRACT NO. 071035
CONDITIONAL USE PERMIT NO. RCUP 200900026
RENV 200900027

As requested, we reviewed the Notice of Preparation for the proposed project and concurred that an Environmental Impact Report (EIR) is required. The proposed project consists of a 230-megawatt solar, photovoltaic facility on 2,100 acres of primarily vacant land located in the Antelope Valley. Major project components include solar, photovoltaic panel arrays; an electrical substation; and a 20,000-square-foot operations and maintenance building with associated parking.

The following comments are for your consideration:

Traffic/Access

Submit a site access report to Public Works, which addresses the items listed below. Upon Public Works' review of the site access report, we will make a determination regarding the need for a traffic study and provide additional comments as necessary.

- Project site access including the need for additional traffic control devices to accommodate and/or restrict ingress and egress.

- Proposed truck-haul routes describing access to streets, highways, and/or freeways.

- Increase in trips including trucks and passenger cars expected as a result of the project.

- Hours of operation of the project.

The project applicant should consult with Caltrans regarding their right-of-way requirements for SR-138.

The EIR should address the impacts of the proposed transmission structures within the public right of way and include propose mitigations if any.

If you have any questions regarding the review of this document, please contact Jacques Gilbert at (626) 300-4794.

Hazards-Hydrology/Water Quality

- Section 2.2.3.7–Site Drainage and Earthwork: Discuss in the EIR the off-site impacts that will be created by channelizing all the flow through the site, as well as any construction/grading related changes to drainage, and what type of mitigation measures will be proposed.

- The EIR should also discuss any alternatives to building a channel such as building outside the natural drainage course and allowing the site to sheet flow as it currently does.

- Submit a drainage concept to Public Works for review and approval showing the extent of drainage impacts and provide mitigation acceptable to the County. The analysis should address increases in runoff, any change in drainage patterns, debris producing areas, and the capacity of existing storm drain facilities. Provide line identification of all proposed drainage facilities. Preliminary soils and geology reports related to debris, retention, and detention basins may be required based on geographic and adverse geotechnical conditions. Provide engineering calculations to support sizing of debris, retention, and detention basins. Provide approximate flood hazard and bank erosion setbacks and lot identifications (as needed). Show slopes for existing and proposed streets.

If you have any questions regarding hydrology comments, please contact Christopher Sheppard at (626) 458-4921.

Environmental Programs

- **Hazardous Waste**: The proposed project may generate hazardous waste, which could adversely impact existing Hazardous Waste Management infrastructure. This issue should be addressed and mitigation measures provided in the EIR.

- **Construction and Demolition Recycling**: Construction, demolition, and grading projects in the County's unincorporated areas are required to recycle or reuse a minimum of 50 percent of the construction and demolition debris generated by weight per the County's Construction and Demolition Debris Recycling and Reuse Ordinance. A Recycling and Reuse Plan must be submitted to and approved by Public Works' Environmental Programs Division before a construction, demolition, or grading permit may be issued.

- **Underground Storage Tanks/Industrial Waste/Stormwater**: Should any operation within the subject project include the construction, installation, modification, or removal of underground storage tanks, industrial waste treatment or disposal facilities, and/or storm water treatment facilities, Public Works' Environmental Programs Division must be contacted for required approvals and operating permits.

All development and redevelopment projects, which fall into one of the Standard Urban Stormwater Mitigation Plan project types, characteristics, or activities, must obtain Standard Urban Stormwater Mitigation Plan approval by the appropriate agency.

If you have any questions regarding Environmental comments, please contact Corey Mayne at (626) 458-3524.

Hazards-Geotechnical/Geology

All geotechnical issues discussed in the Notice of Preparation should be addressed in the EIR. Geotechnical reports addressing the proposed development and recommending mitigation measures for the geotechnical hazards should be included as part of the EIR.

If you have any questions regarding geotechnical comments, please contact Jeremy Wan at (626) 458-3873.

If you have any other questions or require additional information, please contact Toan Duong at (626) 458-4945.

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COUNTY OF LOS ANGELES
Public Health

JONATHAN E. FIELDING, M.D., M.P.H.
Director and Health Officer

JONATHAN E. FREEDMAN
Chief Deputy Director

ANGELO J. BELLOMO, REHS
Director of Environmental Health

ALFONSO MEDINA, REHS
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5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5280 • FAX (626) 960-2740

www.publichealth.lacounty.gov

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Michael D. Antonovich
Fifth District

April 21, 2009 RFS No. 09-0008318

Tract Map No. 071035

Vicinity: Lancaster

Vesting Tentative Tract Map Date: March 18, 2009

☐ Environmental Health recommends approval of this project.

☑ Environmental Health does **NOT** recommend approval of this project.

The County of Los Angeles Department of Public Health's approval for **Vesting Tentative Tract Map 071035** is contingent upon the following conditions:

1. **Prior to Tentative Map Approval**, a report demonstrating the feasibility of installing onsite waste water treatment system(s) for the entire development shall be submitted to this Department for review and approval. The report shall conform to the requirements outlined in the Department's guidelines, "Application Procedures for Approval of an Onsite Wastewater Treatment System (OWTS)." The report shall consist of soil profile excavation, exploratory boring to determine the historic high ground water mark, and percolation testing to substantiate the viability of an installing onsite waste water treatment systems on each parcel. Testing shall be conducted in an area likely to be utilized as a disposal field for the development. If any existing onsite wastewater treatment system(s) is proposed to be utilized, the adequacy of the system(s) shall be demonstrated in accordance to standards established by this Department. Any onsite wastewater treatment system shall conform to required setbacks from any water well or drainage courses in the area. The applicant may download the referenced document at: http://www.lapublichealth.org/eh/progs/envirp/land_use/land_use_left_column_main.htm
For questions regarding OWTS requirements, please contact Patrick Nejadian, Chief, Land Use Program, at (626) 430-5380.

2. Public sanitary sewers are not available within 200 feet of any part of the proposed subdivision and each lot is dependent upon the use of an individual onsite wastewater treatment system.

3. **The applicant is advised, that in the event that the requirements of the Plumbing Code cannot be met on certain lots, due to future grading or for any other reason, the County of Los Angeles Department of Public Health will deny issuance of a building permit on these lots.**

4. **Prior to Tentative Map Approval**, an adequate, sustainable supply of potable water for each parcel shall be demonstrated. The potable water shall be from an approved source in compliance with the California Safe Drinking Water Act and the Los Angeles County Code, Title 11, Chapter 11:38. For questions regarding potable water requirements, please contact Mihye Shur, Chief, Drinking Water Program at (626) 430-5420.

Requested documents shall be identified with the parcel map number and sent directly to the address below:

County of Los Angeles Department of Public Health
Bureau of Environmental Protection
5050 Commerce Drive
Baldwin Park, CA 91706-1423
Attention: Ken Habaradas

If you have any questions or need additional information, please contact me at (626) 430-5262.

K Habaradas

Ken Habaradas, REHS
Bureau of Environmental Protection

COUNTY OF LOS ANGELES
Public Health

JONATHAN E. FIELDING, M.D., M.P.H.
Director and Health Officer

JONATHAN E. FREEDMAN
Chief Deputy Director

ANGELO J. BELLOMO, REHS
Director of Environmental Health

ALFONSO MEDINA, REHS
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Michael D. Antonovich
Fifth District

May 29, 2009

Christina Tran
Los Angeles County
Department of Regional Planning
Impact Analysis Section
320 West Temple Street
Los Angeles, CA 90012

SUBJECT: NOTICE OF PREPARATION FOR AV SOLAR RANCH ONE PROJECT PROJECT NO. R2009-02239, TRACT MAP NO. TR071035

This is in response to the Notice of Preparation (NOP) for the above-referenced project that was forwarded to the Environmental Health for review and comment. We have reviewed the NOP and offer the following comments:

The Department had previously issued conditions of approval for the tentative tract map. The tentative map proposes to utilize individual onsite wastewater treatment systems (OWTS) for sewage disposal and on-site water wells for water supply. The Department has required a preliminary feasibility report prior to tentative map approval. Any impact on the environment by the use of OWTS will be mitigated by pretreatment of the effluent, if necessary. No other mitigation measure is foreseen at this time. Enclosed for your reference is a copy of the Department's report of April 21, 2009 that was given to the applicant at the April 27, 2009 Subdivision Committee Meeting.

In section 2.4 (Operation and Maintenance), the Project Description states that the project will require 16 fulltime personnel for operation, maintenance and security. If there are changes in the Project that result in **more than four connections and/or more than 24 person served for a minimum of 60 days or more**, the Project would meet the definition of a "Public Water System." A Public Water System is required to meet the requirements under the current Water Works Standards as per CCR Title 22, and all other provisions under the Safe Drinking Water Act, including compliance with the California Environmental Quality Act (CEQA).

If you should have any questions or require additional information, please let me know.

Sincerely,

Ken Habaradas, REHS
Bureau of Environmental Protection
Enclosure

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

5823 Rickenbacker Road
Commerce, California 90040-3027

DATE: June 8, 2009

TO: Department of Regional Planning
Permits and Variances

PROJECT #: CUP R2009-02239

LOCATION: AV Solar Ranch One - SR 138 between 155th St. West and 180th St. West

☐ The Fire Department Land Development Unit has no additional requirements for this permit.

☒ This property is located within the area described by the Fire Department as the Very High Fire Hazard Severity Zone (VHFHSZ). A Preliminary Fuel Modification Plan shall be submitted and approved prior to the Public Hearing. For details contact the Fuel Modification Unit, Fire Station 32, 605 North Angeleno Avenue, Azusa, CA 91702-2904. They may be reached at (626) 969-5205.

☒ **Comments:** THIS PROJECT IS NOT CLEARED BY THE FIRE DEPARTMENT FOR PUBLIC HEARING.

☒ **Location:** 1. Water requirements shall be in accordance with NFPA 1142 prior to issuance of a building permit.

☒ **Access:** 1. Shall provide paved fire apparatus access with a minimum width of 26 feet clear to sky. Said access shall extend to within 150 feet of all exterior portions of all buildings.
2. This project shall comply with LACoFD "Regulation 27 - Requirements for Building Construction and Land Use Within or Adjacent to High Voltage Transmission Lines".
3. All fire access gates shall comply with LACoFD "Regulation 5 - Limited Access Devices and Systems".

☒ **Special Requirements:** THE FIRE DEPARTMENT DOES NOT RECOMMEND THE PLANTING OF ANY VEGETATION BENEATH OR NEAR SOLAR PANELS. ANY MATERIAL TO BE PLANTED IN SUCH AREAS SHALL BE REVIEWED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO THE PUBLIC HEARING.

THE FOLLOWING ITEMS SHALL BE PROVIDED TO THE FIRE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE PUBLIC HEARING:

1. Preliminary Fuel Modification approval.
2, Revised Site Plan.
3. Specifications of proposed solar units and associated electrical/distribution equipment.

Fire Protection facilities; including access must be provided prior to and during construction. Should any questions arise regarding this matter, please feel free to call our office at (323) 890-4243.

Inspector: SCOTT JAEGGI

Antelope Valley Group of the Sierra Club
P.O. Box 901875
Palmdale, CA. 93590

June 1, 2009

Christina Tran
Impact Analysis Section
Los Angeles County Department of Regional Planning.

Re: Comments for the NOP on the AV Solar Ranch one Project
County Project NO R2009-02239
TRACT MAP NO. TR071035
RCUPT200900026
RENVT200900027

Dear Ms. Tran,

The Applicant, Antelope Valley Solar Ranch One, LLC (NextLight) has met with the Antelope Valley group of Serial Club on several occasions and presented one formal program to the Group. In general they have been open to our questions and concerns. The low projected water usage by the project is an important factor to residents of the Antelope Valley (AV).

We would like to reiterate several points for the record. The proximity to the California Poppy Reserve has been discussed by the Applicant in this document, and should continue to guide the development of this facility.

This being the first of possibly many such projects on the west side of the AV, some of the following suggestions may be also applicable to other solar projects.

1) We feel that at least one wildlife corridor should be designed into the plan. This should be passable by an animal the size of a mountain.

2) A survey for plants and animals, which may be present on the land after the farming stopped. For example the burrowing owl likes to take-up residence on disturbed soil. If burrowing owls are present, they need to be protected.

3) The use of the Poppy Reserve for star parties and the desire of the residents of the rural AV for clear night skies should be considered. Lighting is discussed and section 2.2.3.3. It states that lighting will be the minimum needed for safety and will face downward. It should also meet the guidelines of the proposed Los Angeles County's Dark Skies plans.

4) Care in designing the visual appearance of the project along Hwy 138 (Ave D). The views of the Tehachapi Mountains are at times very striking. Consideration to minimize the visual impacts by the security boundary should be considered.

5) Highway 138 is designated as a Botanical Management Area between about 140th St. West to about 180th St. West. The Caltrans website states that a Botanical Management Area sign and plaque is "used to identify areas along the State highway right-of-way that are environmentally significant natural remnants of California's botanical diversity, as designated by the Office of State Landscape Architecture." The existing natural flora should not be disturbed in the right-of-way along Highway 138.

6) The biological report indicated about 50 small Joshua trees are located on the property. An estimate 30 will have to be removed. We would suggest the Applicant try saving as many as possible. The AV Group of the Sierra Club would like to work with the Applicant in trying to find a location for them. One possibility would be to move them to a re-vegetation area at Arthur B. Ripley Desert Woodland State Park, with the approval of California State Parks. Another possible location could be the Antelope Valley Resource Conservation District Nursery.

7) Consideration of an educational sign explaining the working of the solar farm at a turnout would be positive for public relations.

There are rapidly diminishing areas of Joshua tree woodlands in the western AV. Environmental groups in the AV are hoping to work with the new alternative energy companies to protect as much of the remaining woodlands as possible.

Sincerely,

//signed//
Kate Allen, Chairman
Antelope Valley Group of the Sierra Club

Peter and Elizabeth Aguilar
40742 Turnberry Court – Palmdale, CA 93551
(661)97-1699 - PCH2000@mac.com

Letter- AG2009-001

Project : AV Solar Ranch One
County Project Number: R2009-02239

My name is Peter Aguilar, and I along with my wife Elizabeth are the owners of property located at 50805 172nd St West, Cross street is 172nd Street West and Avenue B.

AV Solar Ranch One's boundary will be located directly in front of our property, approximately 100 feet from our front door.

Since we were unaware of the meeting held on May 16, 2009 we would like to submit our comments in writing. Please include us in any future meetings and information. Our contact information is as follows:

Mailing address:	40742 Turnberry Court. Palmdale, CA 93551
Phone :	661-917-1699 (Peter's cell)
eMail:	PCH2000@mac.com

There are several concerns that we would like addressed since the proximity of our home to AV Solar Ranch One is so close.

1. **Visual Impact:** Our front door opens to the South facing the Joshua tree preserve, according to your plans, we will be looking at a 7 foot high chain link feet with a foot of barbed wire on top. This view will extend from left to right for over 1000 feet. How will this be addressed?

2. **Ground Water:** What precautions will be taken not to contaminate the ground water from the chemicals used for cleaning the panels. Our home sits north of the 2100 acres of solar panels. The water travels north, in the direction of our well. How can we be assured this water will not be contaminated both during construction and after, since our well is in such close proximity to the solar panels.

3. **Flooding**: What steps will be taken to prevent flooding both during and after construction. The natural grading runs north towards our property. Currently the natural landscape provides enough ground cover to prevent any flooding, but after the land has been graded, this will be an issue.

4. **Air Quality**: Being that our home is in such close proximately, what steps are being taken to prevent all the dust that will be surrounding our home on a daily basis, not just from the natural daily winds, but the constant transportation of supplies by the large trucks that will be using the dirt roads on a daily basis. As you can see from your plans, Avenue B and 172nd are both dirt roads, and since hour home is location on the South East corner of our property which is 172nd

Peter and Elizabeth Aguilar
40742 Turnberry Court – Palmdale, CA 93551
(661)97-1699 - PCH2000@mac.com

Street West and Avenue B, this is of extreme concern to us. A special health concern is the recorded cases of Valley fever reported in the Antelope Valley. These cases are usually near large construction sites. What actions will you be taking to assure the safety of our family?

We purchased the above property with the intent to retire here. We have gone through alot of expense to upgrade our home and we continue to work on this property. One of the things we enjoy working on is improving our landscaping. We have planted over 100 trees including over 40 fruit trees with the hope of seeing these trees mature over time.

I have no doubt that during the 3 years of construction, we will be unable to be out in the yard due to the dust that will be created. Although I am not opposed to solar panels, as our house is all electric with the anticipation that we would someday convert to either solar power or wind power, I never imagined that we would have thousands of acres of these panels within feet of our property.

I am greatly concerned about the environmental impact of this project. I am of course even more concerned about my future and the future of my family at our home located only feet from your solar panels.

Being that we are the only property within feet of your project, I would like to meet with the project engineer to discuss some possibilities. Please contract us at your earliest convenience by email at pch2000@mac.com.

We would like to hear from you soon.
Thank you for your attention into this matter.

Peter Aguilar

05/26/2009

Arsalan Hayatdavoodi
42151 Summer Lane
Lancaster, CA 93536
(310) 210 6163

To Whom It May Concern:

This letter is in regard to a solar plant project in Antelope Valley, and its impact on my property, an acreage with APN number of 3257-011-011. This project faces a big portion of Avenue 180th West from highway 138 all the way to the border of my property on Avenue B-8. Therefore, I would be grateful if they do their part in sharing the cost of developing that portion of Avenue 180th West, which their project is facing all the way from highway 138 to Avenue B-8. I would appreciate it if the Los Angeles County regional Planning could take this matter into consideration since it would be fair for the developer to be responsible to develop the road adjacent to the project. Thank you for your time.

Sincerely,

Arsalan Hayatdavoodi

MAY 27 2009

From: Jack T. [jacktca@gmail.com]
Sent: Monday, May 18, 2009 12:49 PM
To: Tran, Christina
Cc: cbostwick@avpress.com
Subject: Studies slated to look at effects of proposed facility

Christina Tran,

I read in the AV Press that you are the one gathering comments for the new solar generation facility out in the highway 138/170th street area.

In my opinion, here is something that you should consider. You have the California aqueduct running through the area. You have a desalinization
plant opening up near the beach down south in San Diego where the aqueduct water is headed. I did a little bit of math and figured out that
$25,000 USD of solar panels will generate enough electricity to produce enough water in a desalinization plant near the ocean to provide water for
100 water hog trees (oaks). I think that part of the power used by this facility should be dedicated to compensate the California aqueduct for water that
can be taken out on the spot (near the solar plant) where it can be used to water the area surrounding highway 138. The power can be used down the
line at the desal plan to make up for the loss. Wouldn't it be nice to drive into Lancaster from Neenach, where I have a house, along an oak tree lined
avenue? Yes I think that would be much nicer, cooler, and more comfortable than the Joshua trees that somebody proposed to hide the barbed wire fence.

That's my comment on the matter.

Sincerely,

Jack Tuszynski

May 27, 2009

TO: Christina Tran, Impact Analysis Section, Los Angeles County Department of Regional Planning.

From: Dean Webb, Representing myself.
1000 E. Caperton,
Lancaster, CA., 93535

Subject: Comments for the NOP on the AV Solar Ranch One Project
County Project NO R2009-02239
TRACT MAP NO. Tr071035
RCUPT200900026
RENVT200900027

Ms. Tran, I have attended meetings as a member of several environmental groups (the Antelope Valley Environmental Group and the AV Group of the Sierra Club) of Citizens concerned with protecting the natural world. The meetings given by the Applicant, AV Solar Ranch 1, LLC (NextLight) have seemed transparent on questions and problems expressed. The following list of criteria are important and should be serve when rating any solar or wind alternative energy project.

a) Water usage
b) Use of disturbed lands for installation
c) Care for wildlife and native plants
d) Dust Control
d) Visual Impacts (Viewshed)
e) Archeology survey

JUN - 1 2009

Review of some items above:
The Applicant has a low rate of water usage compare to other alternate energy systems. The low projected water usage by the project is an important factor to residents of the Antelope Valley (AV).
Several points need reiteration for the record.. The proximity to the California Poppy Reserve has been discussed by the Applicant in this document and in meetings, and should continue to guide the development of this facility.

This being the first of possibly many such projects on the westside of the AV, some of the following suggestions may be also applicable to other solar and wind projects.

1) We feel that at lest one "wildlife corridor" should be designed into the plan. This should be suitable for an animal the size of a mountain lion to pass on through.
2) A survey for birds and plants, which may be present on the land after the farming stopped. For example the burrowing owl likes to take-up residence on disturbed soil.
3) The use of the Poppy Reserve for star parties and the desire of the residents of the rural AV for clear night skies should be considered. Outside lighting at night needs to follow the guidelines of the proposed LA County's "Dark Skies" plans.
4) Care in designing the visual appearance of the project along Hwy 138 (Ave D). The views of the Tehachapi Mountains are at time very striking. Consideration to minimize the visual impacts by the security boundary should be considered.
5) Highway 138. Is designated a Caltran's "Botanical Management Area" between about 140 st west to about 180 st west. How this effects the area along the road in not certain.
6) The biological report indicated about 50 small Joshua trees are located on the property. An estimate 30 will have to be removed. We would suggest the Applicant try saving as many as possible. If the Applicant can't relocate them, then some of the local environmental groups would like to work with the Applicant in trying to find a location for them. A possibility of moving them to a re-vegetation area at Ripley Desert Woodland, with the approval of State Parks. Another possible location could be the AV Resource Conservation Nursery.
7) Consideration of an educational sign explaining the working of the solar farm at a turnout would be positive for public relations.

There are rapidly diminishing areas of Joshua tree woodlands in the western AV (see Biological Report for this NOP). Environmental groups in the AV need to work with LA County and the new alternative energy companies to protect some remaining woodlands.

Sincerely,
Dean Webb

AV SOLAR RANCH ONE EIR
VERBAL COMMENTS FROM SCOPING MEETING (MAY 14, 2009)
AT WESTSIDE COMMUNITY CHURCH, ANTELOPE ACRES

No.	Comment	Commenter, If Identified	Response
1	Where is the location of the DEIR Public Hearing?	--	Downtown Los Angeles County Department of Regional Planning location
2	The Applicant should make sure the project is in compliance with the County's night sky ordinance.	--	County staff would be reviewing the project to ensure compliance with codes.
3	Will recreation be evaluated? Want to ensure that equestrian trails are included.	--	–
4	Commenter was concerned regarding visual impacts due to the fencing along Avenue D. The fence will be long and will look like a prison. Is there any way to push the fence off the road? It would help if the Applicant installs a lower fence-line at frontage or plants trees or Joshua trees.	--	–
5	i) Is this the forum where I should be asking questions? Or, do you want comments later?	Lahontan RWQCB	Verbal and written comments are accepted.
	ii) Water board plans to comment on the NOP.	Lahontan RWQCB	–
	iii) Is the transmission corridor a part of the project?	Lahontan RWQCB	The transmission line is part of the project.
	iv) Will greenhouse gases (as per AB32) be addressed? It was not in the Initial Study.	Lahontan RWQCB	While greenhouses gases is not currently a topic in the initial study, greenhouse gases will be addressed in the EIR.
	v) Has Project considered use of recycled water for domestic and industrial uses of water on the site? Example, any treated water from the LAC Sanitary District?	Lahontan RWQCB	–
	vi) Is it a reasonable assessment that groundwater would be used onsite?	Lahontan RWQCB	Yes
	vii) Will Project treat groundwater for panel washing?	Lahontan RWQCB	–
	viii) How would concentrated wastewater be disposed?	Lahontan RWQCB	–
	ix) How would domestic waste be disposed?	Lahontan RWQCB	Septic system, as described in the IS.
	x) Any surface waters and drainages jurisdictional waters?	Lahontan RWQCB	The site does not have Waters of the US, but has CDFG jurisdictional drainages.

AV SOLAR RANCH ONE EIR (CONTINUED)
VERBAL COMMENTS FROM SCOPING MEETING (MAY 14, 2009)
AT WESTSIDE COMMUNITY CHURCH, ANTELOPE ACRES

No.	Comment	Commenter, If Identified	Response
	xi) Will the Project need a SAA?	Lahontan RWQCB	A SAA would be expected for work in the drainages.
	xii) Are storm water basins proposed?	Lahontan RWQCB	Currently not in design yet, but final hydrology report will determine storm water design needs.
	xiii) Has the Project approached the CEC? Why has the Project approached Los Angeles County to be the lead agency?	Lahontan RWQCB	CEC has jurisdiction over thermal energy projects (for example: natural gas combustion) that generate over 50 MW. Since the Project is a PV project that does not involve thermal processes, CEC does not have jurisdiction. As a result, the LACDRP has jurisdiction as the lead agency.
	xiv) Has the applicant submitted an AFC?	Lahontan RWQCB	AFC is associated with the CEC's jurisdiction/permitting; as a result, an AFC is not required. The Applicant will be filing to certify as an eligible renewable resource with the CEC.
6	Winds blow very strong in the Antelope Valley. Concerns for PM10 and blowing winds. Project would involve grading, so how would the Project keep the dust down?	--	Impacts to PM10 issues will be addressed in the EIR.
7	There are a few Joshua trees out there. Want to make sure that Joshua trees are not just graded. Potentially relocate or restore habitat to another section that is not used to animals can use those areas.	--	Impacts to Joshua trees will be addressed in the EIR.
8	Perhaps during construction reclaimed water could be used. Many people out there are using wells. During construction sounds like will be pumping hard. Lancaster Sewer Plant is overflowing with reclaimed water they don't know what to do with. They will probably make a good deal to have reclaimed water to be hauled out for use during construction.	--	–

Sign-In Form
Public Scoping Meeting
AV Solar One Project
May 14, 2009 (Antelope Valley)

Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
BOB LARGE	LAKES TOWN COUNCIL	PO BOX 949 LAKE HUGHES, CA 93532	724-0150	☐
PAT MURPHY		36227 80th ST E., Littlerock, CA 93543 (Property owner @ 187th & Wht Ave E)	661-949-6631	☐
DON CORNELIUS		36227 80th STE Littlerock CA 93543 (PROPERTY OWNER @ 187TH & AVE E)	661 810 3135	☐
DAVID KERR		P.O BOX 6335 LANCASTER CA 93539		☐
[illegible]	GAVEA	~~55~~ 1028 W ave L-12 Lancaster, CA.	945-2741	☐
Brian Glidden	Arrow Eng	42140 10th St. W. Lancaster CA 93534	940-0043	☐
RUDY MEJIA		~~187~~ 14843 LEMAY ST VAN NUYS CA 91405	818 4383855	☐
				☐

Sign-In Form
Public Scoping Meeting
AV Solar One Project
May 14, 2009 (Antelope Valley)

Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
JOE KOLBSKY	LAHONTAN RWQCB	14440 CIVIC DR, STE 200 VICTORVILLE, CA 92392	760 241-6583	☑
JEROME ALMEIDA JOSEPHINE		19920 N. 108TH AVE SUN CITY, AZ 85373	602.561.1410	☐
George Passantino	Passantino Andersen Communications	190 Sierra Ct, Ste B-8 Palmdale, CA 93550	661-538-1100	☐
David Sinclair	Passantino Andersen Communications	190 Sierra Ct., Ste. B-8 Palmdale CA 93550	661-538-1100	☐
JIM HOTCHKISS		P.O. BOX 189 LAKE HUGHES, CA 93532	661-724-8825	☐
DAN SMITH	FEJFIELD : SMITH	42225 10TH STW #119 LANCASTER, CA 93534	661-949-6676	☐
Michael Bass	esdar	130 W. UNION ST Pasadena CA 91103	(626)685-1837	☐
				☐

Sign-In Form
Public Scoping Meeting
AV Solar One Project
May 14, 2009 (Antelope Valley)

Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
Jessica Hockenberg	Edison International		(626) 302-1659	☐
Linda Vitale	area resident	PO Box 189 Lake Hughes, CA 93532		☐
Vickie Nelson	AATC		942-2188	☐
Adam Fuentes	TMG Communications		951 415 9377	☐
				☐
				☐
				☐
				☐

Sign-In Form
Public Scoping Meeting
AV Solar One Project
May 14, 2009 (Antelope Valley)

Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
Ginger Stout		9136 W Ave E-4 Antelope Acres, CA 93536	661-948-4359	☐ ?
Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
				☐
Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
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Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
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Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
				☐
Name	Organization (if applicable)	Street Address/City/State/ZIP	Phone Number	Check if wish to speak
				☐

APPENDIX A.3
AGENCY COORDINATION REGARDING
NOTICE OF PREPARATION RESPONSE LETTER RECEIVED

Ray_Bransfield@fws.gov
07/09/2009 11:39 AM

To Crissy_Slaughter@URSCorp.com
cc Christopher_Julian@URSCorp.com
bcc
Subject Re: Antelope Valley Desert Tortoise question

History: This message has been forwarded.

Crissy,
Thanks for the additional information. It is more thorough than what was in the notice of intent on which I commented. I'm pretty sure that I recommended that surveys for desert tortoises be conducted on the site, based on what was in the NOI. Given the site conditions you described in your email, the general location of the site, the work that you have done there already, and your background with tortoises, I think the likelihood that a focused tortoise survey would find tortoises is extremely low. In other words, I suspect that desert tortoises are highly unlikely to be present. Therefore, I would no longer recommend additional surveys for tortoises.

Desert tortoises are unlikely to be present in the small stretches of Joshua tree woodland that the power line would cross, because of the general location, its proximity to a busy road, and the relatively small patches of native habitat. However, given that some native habitat is present, I recommend you develop and implement an avoidance strategy, in the unlikely event a tortoise shows up. Such a strategy would include pre-work surveys and instructing workers what to do and general avoidance measures, if is tortoise is found during construction. With short segments of power line, one could reasonably avoid taking a tortoise.

Thank you for the additional information. I recommend that you include this email as part of your record.
Ray

Crissy_Slaughter@URSCorp.com

Crissy_Slaughter@URSCorp.com
07/09/2009 10:58 AM

Toray_bransfield@fws.gov
ccChristopher_Julian@URSCorp.com
SubjectAntelope Valley Desert Tortoise question

Ray-

Thank you for taking the time to speak to me about desert tortoise occurrences in the Antelope Valley in the vicinity of our project site. This email serves as a follow-up to our phone conversation this morning.

As I stated on the phone, our entire Project site was under agricultural production until 1995. The majority of the Project site is now covered with rabbitbrush scrub, and the remainder is non-native grassland habitat. The total length of the proposed transmission line route is approximately 3.5 miles along the 170th Street West road right-of-way (approximately 50 feet from the edge of the pavement). Depending on the configuration of the proposed transmission line route, this route will traverse either 0.25 miles or approximately 1.0 miles of Joshua tree woodland habitat within the County road right-of -way. Most of the proposed transmission line route traverses rabbitbrush scrub or active agriculture lands.

URS biologists have conducted extensive surveys of the Project site and proposed transmission line route including: burrowing owl surveys (consisting of 20-30 meter belt transects of the entire Project site and transmission line route); botanical surveys of the same areas (consisting of multiple pedestrian transects); wintering and breeding bird surveys of these areas (consisting of transects and point counts); in addition to other biological surveys of the Project site and proposed transmission line route.

No sign or evidence of desert tortoise presence was detected on the Project site or proposed transmission line route during any of our field efforts. I have participated in all of these surveys and have an extensive background in desert tortoise surveys, having been a memeber of the survey crew for line distance sampling surveys for desert tortoise for 2 field seasons (2002 and 2003), in addition to many other desert tortoise surveys throughout the Mojave desert.

Given the condition of our Project site and proposed transmission line route, it is my understanding that our site does not contain desert tortoise habitat, and the lack of recent records indicates that no tortoises would be expected to occur in this area. I understand that desert tortoises have been discovered this spring west of Hwy 14 in an area to the northeast of our Project site.

What do you feel the likelihood of desert tortoise occurrence is within our project site and proposed tranmsission line route? What steps would you recommend with regard to desert tortoise?

I would appreciate any guidance on this issue.

Thank you for your time,

Crissy Slaughter
Biologist
URS Corporation
130 Robin Hill Road, Suite 100
Santa Barbara, CA 93117
Phone: 805.964.6010 ext. 568
Cell: 805.452.2133
crissy_slaughter@urscorp.com

APPENDIX B
GEOTECHNICAL ENGINEERING REPORT

This appendix presents a copy of the Geotechnical Engineering Report prepared by Terracon Consulting, Inc. for the AV Solar Ranch One Project. This report supports the geotechnical hazards impact assessment presented in Section 5.2 of this Draft EIR.

Geotechnical Engineering Report

Antelope Valley Solar Ranch 1

West Avenue D and 170th Avenue West

Lancaster, California

August 6, 2009

Project No. 60085038

Prepared for:

NextLight Renewable Power, LLC
San Francisco, California

Prepared by:

Terracon Consultants, Inc.
Orange County, California

Offices Nationwide
Employee-Owned
Established in 1965
terracon.com

Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

GEOTECHNICAL ENGINEERING REPORT
ANTELOPE VALLEY SOLAR RANCH 1
WEST AVENUE D AND 170TH AVENUE WEST
LANCASTER, CALIFORNIA

Terracon Project No. 650085308
August 6, 2009

EXECUTIVE SUMMARY

This geotechnical executive summary should be used in conjunction with the entire report for design and/or construction purposes. It should be recognized that specific details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled General Comments should be read for an understanding of the report limitations.

A geotechnical exploration has been performed for the Antelope Valley Solar Ranch 1 project to be located at West Avenue D and 170th Avenue West in Lancaster, California. Terracon's geotechnical scope of work included the advancement of 52 test borings to depths of approximately 20 feet, 24 test pits to depths ranging from approximately 6 to 10 feet, and 20 Cone Penetrometer Tests to depths ranging from 30 to 50 feet. In addition, two percolation tests, and seven infiltration tests were performed at the site.

Based on the information obtained from our subsurface exploration, the site is suitable for development for the proposed project. The following geotechnical considerations were identified.

Site Soils: The surface soils generally consisted of silty sand and clayey sand soils. It appears that the majority of the on-site soils will be suitable for use as engineered fill beneath foundations, pavements, and in all other areas of the site.

Foundations: The T-20 tracker units at the site may be ground mounted bearing on approved undisturbed soils. The building and related structural elements at the site may be supported by shallow spread footings or mat foundations bearing on approved undisturbed soils. Pole mounted equipment may be supported by drilled shaft foundations.

Floor Slabs: Construction of floor slabs directly on compacted fills composed of on-site soils or approved imported soils are considered acceptable for the project.

Pavement Sections: Automobile Parking Areas – 3" AC over 4" ABC or 5" PCC over 4" ABC; Main Drives & Truck Parking Areas – 3" AC over 6" ABC or 6" PCC over 4" ABC.

Earthwork on the project should be observed and evaluated by A licensed engineer practicing in the field of geotechnical engineering. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during construction.

TABLE OF CONTENTS

Page

EXECUTIVE SUMMARY i
1.0 INTRODUCTION 1
2.0 PROJECT INFORMATION 2
2.1 Project Description 2
2.2 Site Location and Description 3
3.0 PHYSICAL SETTING 3
3.1 Topography and Hydrology 3
3.2 Geology 4
3.2.1 Regional Geologic Setting 4
3.2.2 Local Geologic Setting 4
3.2.3 Faulting and Estimated Ground Motions 4
3.3 Seismic Hazards 5
3.3.1 Fault Rupture 5
3.3.2 Liquefaction 6
3.3.3 Tsunamis and Seiche 6
3.3.4 Seismically Induced Landslides 6
3.4 USDA Surface Soils Information 6
3.6 Comments on Brushfire Potential 6
3.7 Comments on Mudslides 7
4.0 SUBSURFACE CONDITIONS 7
4.1 Typical Profile 7
4.2 Infiltration Tests 8
4.3 Percolation Tests 8
4.4 Groundwater 8
5.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION 9
5.1 Geotechnical Considerations 9
5.2 Earthwork 9
5.2.1 Compaction Requirements 11
5.2.3 Corrosion Potential 11
5.2.3 Surface Drainage 11
5.2.4 Construction Considerations 11
5.3 Foundation Recommendations 12
5.3.1 T-20 Tracker Design Recommendations 12
5.3.1.1 T-20 Tracker Construction Considerations 13
5.3.2 Driven Pile Design Recommendations 13
5.3.3 AB Chance Design Recommendations 13
5.3.4 Spread Footing Design Recommendations 15
5.3.4.1 Spread Footing Construction Considerations 16
5.3.5 Mat Foundation Design Recommendations 16

5.3.5.1 Mat Foundation Construction Considerations 17
5.3.6 Drilled Shaft Design Recommendations 17
5.3.6.1 Drilled Shaft Construction Considerations 18
5.3.7 Slab Mounted Equipment Support 18
5.4 Floor Slabs 19
5.4.1 Design Recommendations 19
5.4.2 Construction Considerations 19
5.5 Seismic Considerations 20
5.6 Pavements 20
5.6.1 Design Recommendations 20
5.6.2 Construction Considerations 21
5.7 Lateral Earth Pressures 22
6.0 GENERAL COMMENTS 22

APPENDIX A – PLATES

Plate No. 1 Topographic Map
Plate No. 2 Flood Plain Map
Plate No. 3 Geology Map
Plate No. 4 Soil Survey Map
Plate No. 5 Site Plan and Field Exploration Diagram
Plate No. 6 Drilled Shaft Capacities – Axial Shaft Load
Plate No. 7 Drilled Shaft Capacities – Allowable Uplift Load

APPENDIX B – FIELD EXPLORATION

Exhibit A-1 Field Exploration Description
Exhibit A-2 to A-55 Logs of Borings
Exhibit A-56 to A-79 Logs of Test Pits
Exhibits A-80 to A99 CPT Data Sheets
Exhibit A-100 General Notes
Exhibit A-101 Unified Soil Classification

APPENDIX C – LABORATORY TESTING

Exhibit B-1 Laboratory Testing
Exhibit B-2 Atterberg Limits
Exhibit B-3 to B-6 Grain Size Distribution
Exhibit B-7 Percent Passing No. 200 Sieve
Exhibit B-8 to B-15 Collapse Potential (Consolidation)
Exhibit B-16 to B-18 Direct Shear Tests
Exhibit B-19 to B-27 Moisture-Density Relationship
Exhibit B-28 Expansion Index
Exhibit B-29 Corrosion Test Results

August 6, 2009

Terracon

Nextlight Renewable Power, LLC
101 California Street, Suite 2450
San Francisco, California 94111

Attn: Mr. Roy Skinner
PHN: 415.935.2514
FAX: 415.935.2515
email: rskinner@nextlight.com

Re: Geotechnical Engineering Report
Antelope Valley Solar Ranch 1
West Avenue D and 170th Avenue West
Lancaster, California
Terracon Project No. 60085038

Dear Mr. Skinner

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the above referenced project. This study was performed in general accordance with our proposal numbers D6008038 and D60085038A dated October 15, 2008 and October 30, 2008, respectively. This geotechnical engineering report presents the results of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

T.A. W For:
Patrice P. Brun
Project Manager

Paul J. Ernst, P.E., G.E.
Office Manager

REGISTERED PROFESSIONAL ENGINEER
PAUL J. ERNST
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EXP. 3/31/11
GEOTECHNICAL
STATE OF CALIFORNIA

For
Scott D. Neely, P.E.
Principal

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Copies to: Addressee (1 via email, 4 via mail)

GEOTECHNICAL ENGINEERING REPORT
ANTELOPE VALLEY SOLAR RANCH 1
WEST AVENUE D AND 170TH AVENUE WEST
LANCASTER, CALIFORNIA

Project No. 60085038
August 6, 2009

1.0 INTRODUCTION

This report presents the results of our geotechnical engineering services performed for the proposed Antelope Valley Solar Ranch 1 located on West Avenue D and 170th Avenue West, Lancaster, California.

The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- subsurface soil conditions
- groundwater conditions
- earthwork
- floor slab design and construction
- foundation design and construction
- seismic considerations
- lateral earth parameters
- pavement design and construction

Our geotechnical engineering scope of work for this project included the following subsurface tests:

SUBSURFACE TESTS		
Test Type	**Number of Tests**	**Depth**
Test Boring	52	20½ to 21½ feet
Test Pit	24	6 to 10 feet
Cone Penetrometer Test (CPT)	20	30 to 50 feet
Percolation Test	2	10 feet
Infiltration Test	7	1 foot

Logs of the borings and test pits are included in Appendix B along with a Site Plan and Field Exploration diagram (Plate 5, 1 of 2 and 2 of 2) included in Appendix A of this report. CPT soundings data are included in Appendix A. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included in Appendix C. Descriptions of the field exploration and laboratory testing are included in their respective appendices.

2.0 PROJECT INFORMATION

2.1 Project Description

ITEM	DESCRIPTION
Site layout	See Appendix A, Plate 5: 1of 2 and 2 of 2, Site Plan and Field Exploration diagram
Structures	T-20 Tracker: 674,694 high efficiency modules mounted on 74,966 tracker units, drive motor, and equipment pads An alternative to the T-20 Tracker would be a T-0 Powertracker Substation: truss supported structures, transformers and slab mounted equipment Operations and Maintenance Facility: 20,000 square-foot building
Maximum Loads	T-20 Tracker South Foundation: Vertical - 500 lbs Horizontal – 700 lbs. T-20 Tracker North Foundation: Vertical - 900 lbs Horizontal – 1200 lbs. T-0 Powertracker Vertical – 500 to 900 lbs. (assumed) Horizontal – 1,000 to 2,000 lbs. Drive Motor: 20k wind load O & M Building: Column Footings: 30 to 60 kips Continuous Footings: 2 to 4 kips per lineal foot
Maximum allowable settlement	T-20 or T-0 Tracker, South or North Foundation: 2-inches Other structures: 1-inch (assumed)
Grading	Grading plans provided by Patch Services, LLC indicate the majority of the site will require maximum cut and fill to depths on the order of two to three feet. The one exception is the channel that will cross near the middle of the site and will flow from southwest to northeast. This channel will require excavations to depths of approximately 7 to 12 feet.
Traffic Loading	Automobiles in parking areas Main drives & truck access lanes

2.2 Site Location and Description

ITEM	DESCRIPTION
Location	The site is located at the intersection of Avenue D and 170th Street in the City of Lancaster, County of Los Angeles, California. Avenue D (Highway 138) running east-west and 170th Street West running north-south traverses through the site. The site extends about 1.0 mile north and south of Avenue D and about 1.5 miles to the east of 170th Street West. The western portion of the site extends about 0.5 mile west of 170th Street West. The westernmost boundary of the site is about 0.5 mile east of 180th Street West.
Existing improvements	None
Current ground cover	North of Avenue D: Dense vegetation with a dry wash present in the northeast corner of the site, running to the southwest crossing through intersection of Avenue D and W 170th Street. South of Avenue D: Minimal desert brush.

3.0 PHYSICAL SETTING

3.1 Topography and Hydrology

PHYSICAL SETTING INFORMATION FOR SITE AND SURROUNDING AREA		SOURCE
Topography (Refer to Plate 1)		
Site Elevation	Approximately 2,605 feet at the northeast corner to 2,730 feet at the southwest corner. Elevation varies by about 125 feet across the site.	USGS Topographic Map, Fairmont Butte, California, Quadrangle dated 1995.
Surface Runoff / Topographic Gradient	Site gradient, in general is 100:1 (horizontal to vertical) with localized steeper gradient at the north-east and southeast corners. Surface run-offs appear to be in a northeast direction.	
Nearest Surface Water	Streams to the north and east, as well as within the site and runoff from Fairmont Butte located southeast of the site. Portions of the California Aqueduct are located about 2.4 miles to the south of the site's southern boundary.	
FEMA Flood Zones	The site is located within areas marked X and A	FEMA, Map Item ID 06037C0125F, dated September 26, 2008.

Primary Aquifer	Antelope Valley Groundwater Basin	California Department of Water Resources, Groundwater Water Data http://www.groundwater.water.ca.gov/bulletin118/basin_desc/basins_t-y.cfm
Groundwater Conservation District	County of Los Angeles Water Conservation District	http://www.sbvwcd.dst.ca.us/about/index.shtml

3.2 Geology

3.2.1 Regional Geologic Setting

The site is situated within the westernmost portion of the Mojave Desert Geomorphic Province in Southern California. Geologic structures within the Mojave Desert tend to consist of isolated mountain ranges separated by vast expanses of desert plains, with a predominate northwest-southeast faulting trend, with a secondary trend of east-west (parallel to the Transverse Ranges Province). Principal bounding faults include the San Andreas Fault to the southwest and the Garlock Fault to the northwest. A detailed discussion of seismicity is included in the **Faulting and Estimated Ground Motions Section** of this report.

3.2.2 Local Geologic Setting

The site is underlain by Quaternary alluvium (Qal) except for the southeastern portion, which is underlain by Pleistocene non-marine (Qc) deposits.

3.2.3 Faulting and Estimated Ground Motions

The subject site is located in Southern California, which is a seismically active area. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. The table below indicates the distance of the fault zones and the associated maximum credible earthquake that can be produced by nearby seismic events, as calculated using the EQFAULT program. The San Andreas – 1857 rupture segment, which is located approximately 6.1 miles from the site, is considered to have the most significant affect at the site from a design standpoint.

CHARACTERISTICS AND ESTIMATED EARTHQUAKES FOR REGIONAL FAULTS			
FAULT NAME	**APPROXIMATE DISTANCE TO SITE (MILES)**	**FAULT TYPE**	**MAXIMUM CREDIBLE EARTHQUAKE (MCE) MAGNITUDE**
San Andreas – 1857 Rupture	6.1	A	7.8
Garlock (West)	16.0	A	7.1
San Gabriel	21.0	B	7.1
Sierra Madre (San Fernando)	23.0	B	6.7
Holser	25.0	B	6.5
Santa Susana	25.1	B	6.6
Pleito Thrust	25.7	B	7.2
Sierra Madre	26.8	B	7.0
Verdugo	28.6	B	6.7
San Cayetano	28.6	B	6.8
White Wolf	28.7	B	7.2
Northridge (E. Oak Ridge)	29.5	B	6.9

In order to estimate the seismic ground motions at the subject site, Terracon reviewed seismic hazard map information; and performed a probabilistic analysis using the FRISKSP computer program utilizing the Joyner Boore (1997), Campbell (1997), and Abrahamson and Silva (1997) attenuation curves. Based on these sources the peak ground acceleration at the subject site for a 10% Probability of Exceedance in 50 years is expected to be about 0.7g.

3.3 Seismic Hazards

3.3.1 Fault Rupture

Based on our review, the Property is not located within an Alquist-Priolo Earthquake Fault Zone.

The San Andreas Fault (1857 Rupture) is classified as a Class A fault by the State of California, and is a right-lateral strike slip fault approximately 96 miles long with an expected Maximum Magnitude of 7.2. The State Model indicated that this fault has a slip rate of 25±0.4 millimeters per year, and is poorly constrained.

Based on this information, it is our opinion that the potential for fault rupture at the site is considered to be “moderate” during an earthquake event.

3.3.2 Liquefaction

Liquefaction is the phenomenon where saturated soils develop high pore water pressures during seismic shaking and lose their strength characteristics. This phenomenon generally occurs in areas of high seismicity, where ground water is shallow and loose granular soils or hydraulic fill soils are present.

The State of California has not yet mapped the region that the property is located in for Seismic Hazard Zones. Groundwater depths vary significantly in the site vicinity and ranges from 170 feet to over 200 feet below the ground surface. Based on the data from DWR, the relative densities of the soils encountered in our borings, depth of historical groundwater (greater than 50 feet bgs), liquefaction potential of site soils is considered to be low.

3.3.3 Tsunamis and Seiche

Based on the fact that the site is not near large, land-locked water bodies or oceans, the potential for seismically induced tsunamis and seiche is considered to be low.

3.3.4 Seismically Induced Landslides

As discussed in Section 2.2.4.2 above, the State of California has not yet mapped the region that the property is located in for Seismic Hazard Zones. The site is not adjacent to any steeply sloping ground and as such, the potential for seismically induced landslides is low.

3.4 USDA Surface Soils Information

Based on a review of the United States Department of Agriculture (USDA) Soil Survey, it appears that the Antelope Valley Solar Ranch location is characterized by one soil/rock type (discussed below). A detailed description of the soil characteristics, taken from the referenced USDA report, is provided below:

> **Hanford – Greenfield association**
> Hanford and Greenfield soils are well drained with moderately rapid subsoil permeability. The soils are primarily used for non-irrigated grain products.

3.5 Comments on Brush Fire Potential

The site is covered with minimal native vegetation, and is located in a semi-arid desert environment. Without adequate fuel, the potential for brush fires at the site at this time is considered “low.” However, the local fire agency should be consulted to properly document the risk.

3.6 Comments on Mudslides

The site is not located adjacent to any significant slopes. As such, the potential for mudslides is low.

4.0 SUBSURFACE CONDITIONS

4.1 Typical Profile

Based on the results of the borings, test pits, and CPT soundings, surface and near subsurface conditions on the project site can be generalized into two types of soil zones, with Zone 1 comprised primarily of clayey sand and sandy silt soils, and Zone 2 comprised primarily of silty sand and sand soils. The following table presents a description of these two zones.

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density
Zone 1	5	Clayey Sand (SC), Silty Clayey Sand (SC-SM), and Sandy Silt (ML)	Loose to Very Dense
Zone 2	5	Silty Sand (SM), Poorly Graded Sand with Silt (SP-SM), Well Graded Sand with Silt (SW-SM), Poorly Graded Sand (SP), and Well Graded Sand (SW)	Loose to Very Dense

Beginning at depths below five feet and extending to the final depths of exploration (21½ feet bgs at test borings and 10 feet at test pits) the surface soils were underlain by stratified deposits of clayey sand (SC), silty clayey sand (SC-SM), sandy silt (ML), silty sand (SM), poorly graded sand with silt (SP-SM), well graded sand with silt (SW-SM), poorly graded sand (SP), and well graded sand (SW). Based on the results from the CPT soundings, the deeper surface soils (extending to a depth of 50 feet bgs) consisted generally of stratified layers of sands and silt, with occasional thin layers of clays.

Results of CPT soundings and split spoon samples indicate the surface and near surface soils vary from loose to medium dense in relative density.

Conditions encountered at the boring and test pit locations are indicated on the boring and test pit logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. Further details of each boring and CPT sounding can be found on the boring logs and CPT Data Sheets in Appendix B of this report.

4.2 Infiltration Tests

Double ring infiltration tests were conducted in general accordance with the procedures described in ASTM Test Method D3385. The tests were conducted at a depth of one foot bgs.

Average infiltration rates are presented in the table below. The infiltration rates shown are for materials encountered at the base of each test site. Soil stratification and environmental factors (siltation, vegetation, etc) may affect the actual infiltration rate.

INFILTRATION TEST RESULTS		
Test Location	**Soil Classification**	**Infiltration Rate, cm/hr**
INF-1	SM	21
INF-2	SM	12
INF-3	SM	6
INF-4	SP	12
INF-5	SP	16
INF-6	SP	16
INF-7	SM	13

4.3 Percolation Tests

PERCOLATION TEST RESULTS			
Test Location	**Depth**	**Soil Classification**	**Percolation Rate (min./in.)**
P-1	10½ feet	SM	9
P-2	10½ feet	SM	25

It should be noted that siltation and vegetation growth along with other factors may effect the percolation rates of the on-site retention basin areas. The actual percolation rate of each retention area may vary from the values reported here.

4.4 Groundwater

The borings were monitored for groundwater while drilling and immediately after completing the drilling operations. As indicated in the lower left corner of the boring logs, groundwater was not encountered or measured in the borings at this time to the maximum depth explored, approximately 21 feet bgs. Based on our research, groundwater depths vary significantly in the site vicinity and ranges from 130 feet to over 200 feet below the ground surface.

Fluctuations in groundwater levels can occur due to seasonal variations in the amount of rainfall, runoff, altered natural drainage paths, and other factors not evident at the time the borings were advanced. Consequently, the designer and contractor should be aware of this possibility while designing and constructing the building.

5.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

5.1 Geotechnical Considerations

The site appears to be suitable for the proposed construction based upon geotechnical conditions encountered at the test boring, test pit, and CPT sounding locations. Based on the geotechnical engineering analyses, subsurface exploration and laboratory test results, we recommend the proposed structures be supported on shallow foundations or drilled shafts, as applicable.

It appears that the majority of the on-site soils will be suitable for use as engineered fill beneath concrete slabs, foundations, and pavements. Imported soils which may be required for the project must have expansive potentials in the non- to low range and they should satisfy the requirements contained in this report for low volume change soils.

Geotechnical engineering recommendations for foundation systems and other earth connected phases of the project are outlined below. The recommendations contained in this report are based upon the results of field and laboratory testing (which are presented in Appendices A and B), engineering analyses, and our current understanding of the proposed project.

5.2 Earthwork

The following presents recommendations for site preparation, excavation, subgrade preparation and placement of engineered fills on the project. The recommendations presented for design and construction of earth supported elements for foundations are contingent upon following the recommendations outlined in this section. All grading for each structure should incorporate the limits of the proposed structure.

Earthwork on the project should be observed and evaluated by representatives of a licensed engineer practicing in the field of geotechnical engineering. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during the construction of the project.

Strip and remove any existing vegetation, scattered trash and debris, and other deleterious materials from proposed structural and pavement areas. Exposed surfaces should be free of mounds and depressions which could prevent uniform compaction.

Subsequent to the surface clearing, grubbing and fill removal efforts, the exposed subgrade soils beneath proposed structures (not including T-20 Tracker units), exterior slabs, and pavement areas should be prepared to a minimum depth of 10 inches. Subgrade preparation should generally include some form of scarification (or removal), moisture conditioning, and compaction. The moisture content and compaction of subgrade soils should be maintained until slab or pavement construction. In the area of the T-20 Tracker Units, the surface should be stripped of any existing vegetation, scattered trash and debris, and other deleterious materials.

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than six inches in size. Pea gravel or other similar non-cementitious, poorly-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer.

On-site soils less than six inches in maximum particle size or approved imported materials may be used as fill material for the following:

- general site grading
- foundation areas
- interior floor slab areas
- exterior slab areas
- pavement areas
- foundation backfill

Imported soils for use as fill material within proposed structure areas should conform to low volume change materials as indicated in the following specifications:

Gradation	**Percent Finer by Weight (ASTM C 136)**
6"	100
3"	70-100
No. 4 Sieve	50-100
No. 200 Sieve	35 (max)

- Liquid Limit (LL) ..... 35 (max)
- Plasticity Index (PI) ..... 15 (max)
- Maximum Expansion Index 20

Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift. Fill lifts should not exceed ten inches loose thickness.

5.2.1 Compaction Requirements

ITEM	DESCRIPTION
Location	Engineered fill on the site.
Compaction Requirements	95% of the materials maximum standard Proctor dry density (ASTM D-1557)
Moisture Content	-3% to +3% of the Proctor optimum moisture (ASTM D-1557)

5.2.2 Corrosion Potential

Results of soluble sulfate testing indicate that ASTM Type I/II Portland cement is suitable for all concrete on and below grade. Foundation concrete should be designed in accordance with the provisions of the ACI Design Manual, Section 318, Chapter 4.

Laboratory test results indicate the on-site soils have pH values ranging from 6.03 to 7.44 and minimum resistivity values ranging from 3,800 to 20,000 ohm-centimeters. The results of this testing are included in Appendix C. The soils on this site are generally considered to be moderately corrosive towards ferrous metals. Consideration should be give to consulting with a corrosion engineer for a more detailed evaluation and attendant recommendations.

5.2.3 Surface Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Surface features which could retain water in areas adjacent to the retaining walls should be sealed or eliminated. Backfill against footings, walls, and in utility trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration.

5.2.4 Construction Considerations

It is anticipated that shallow excavations for the proposed construction can be accomplished with conventional earthmoving equipment. However, instability in the form of slope raveling, caving, and sloughing should be expected in all excavations and trenches at the site which extend into the granular materials with little to no cohesion.

The individual contractor(s) is responsible for designing and constructing stable, temporary excavations as required to maintain stability of the excavation sides and the excavation bottom. Excavations should be sloped or shored in the interest of safety following local and federal regulations, including current OSHA excavation and trench safety standards.

Earthwork during wet site conditions may result in the disturbance of the site soils. The ability to use native soils from site excavations as structural fill will depend on their moisture content at the time of earthwork and the prevailing weather conditions when site grading activities take place. Construction traffic should be restricted to dedicated driveway and laydown areas to prevent excessive disturbance of the building pad, parking area and driveway subgrades. Even intermittent wet weather could delay earthwork if soil moisture conditions are elevated above the optimum moisture content. Performing site grading operations during the warmer and drier months would aid in reducing potential need for subgrade stabilization.

During or shortly after periods of rainfall, earthwork operations may have to be temporarily halted should the moisture content of the proposed fill materials and areas planned to receive fill become elevated to levels well above optimum. When excessive moisture contents are created as a result of rainfall, the soil materials may have to be blended/mixed/aerated to reduce moisture contents to within compactible ranges.

5.3 Foundation Recommendations

Where applicable, structures can be supported by a shallow, spread footing foundation system, mats, drilled shafts, driven piles, or screw piles. Design recommendations for foundations for the proposed structures and related structural elements are presented in the following paragraphs.

5.3.1 T-20 Tracker Design Recommendations

DESCRIPTION	VALUE
Foundation Type	Ground Mounted
Structures	T-20 Tracker (North and South Foundations)
Bearing Material	Undisturbed Soils below surface clearing and grubbing efforts
Allowable Bearing Pressure	1000 psf
Minimum Embedment Depth Below Finished Grade	At ground surface, no embedment
Minimum Footing Dimension	3.5 feet
Total Allowable Settlement	2-inch
Total Estimated Settlement	1-inch[1]
Estimated Differential Settlement	1 inch
Note 1: Additional foundation movements could occur if water from any source infiltrates the foundation soils; therefore, proper drainage should be provided in the final design and during construction.	

The allowable foundation bearing pressures apply to dead loads plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that include wind or seismic conditions.

The general bearing capacity equation developed by Terzaghi was used to obtain the ultimate bearing pressure for the value provided in the table above. The following parameters were used in the equation: $N\gamma = 15$, $d = 0$, and the unit weight of the soil was 120 pcf. The factor of safety applied to the ultimate value was 3.0. The final answer was rounded down to the nearest 500 psf.

5.3.1.1 T-20 Tracker Construction Considerations

For the ground mounted tracker foundation bearing on undisturbed soil, the foundation ground surface must be observed by a geotechnical engineer or a qualified representative to evaluate the bearing conditions prior to the placement of the structures. If undesirable (e.g., soft, loose, water softened, low density) materials are encountered at the ground surface, the undesirable bearing materials should be removed and replaced with compacted (engineered) fill as recommended in the Earthwork section of this report.

5.3.2 Driven Pile Design Recommendations

Driven pile foundations are considered applicable for support of the T-0 Powertracker provided sufficient lateral load capacity can be generated between the pile and soil interaction. Recommended soil parameters for lateral load analysis would be the same as those provided for drilled shaft foundations (see below).

Allowable vertical axial load capacities of driven pile foundations for various diameters are shown on Plate No. 6 in Appendix A. Uplift loads on driven piles can be resisted through the side shear developed between the walls of the shaft and the surrounding soils. Allowable pile uplift load capacities are shown on Plate No. 7 in Appendix A. The factor of safety used for end bearing was 3.0 and for skin friction was 2.0.

5.3.3 AB Chance Design Recommendations

We understand that Sunpower is considering the use of AB Chance helical piers for support of the T-0 Powertrackers. This foundation type may be applicable provided sufficient lateral load capacity can be generated between the pile and soil interaction. Recommended soil parameters for lateral load analysis would be the same as those provided for drilled shaft foundations.

Allowable loads of helical piers are a function of the number of helices, helix spacing, shaft configuration and size, depth of bearing and strength of the bearing materials. The allowable

load of piers with multiple helices is a summation of the capacity of individual helices provided the helices are installed with increasing diameter from the foundation tip to the uppermost helix, and the minimum spacing between helices is three times the diameter of the next lower helix. The allowable load of piers with multiple helices is also limited by the structural capacity of the pier shaft and helices. The following table provides the preliminary, recommended allowable bearing pressures.

LOAD CAPACITY OF PIER HELICES	
Depth (ft)	**Allowable Bearing Pressure (kips)**
10	7
15	14
20	21

Appropriate pier shaft sizes should be used to obtain the recommended allowable loads when using single or multi-helical pier supports.

The helical piers should be protected against corrosion per the manufacturer's recommendations.

Resistance to lateral loads may be enhanced, as needed, through the use of battered helical augers, or consideration may be given to grouting the upper portions of the auger excavations per the manufacturer's recommendations.

5.3.3.1 AB Chance Construction Considerations

Helical piers should be installed in accordance with the installation instructions and recommendations of the manufacturer. The installation technique must be consistent with the geotechnical, logistical, environmental and load carrying conditions of the site. An appropriate specification should be developed for the pier installation process.

The installation equipment should capable of applying adequate downward pressure and torque simultaneously to suit project soil conditions and load requirements, and capable of continuous position adjustment to maintain proper pier alignment.

All piers should be rotated into the ground for bearing in the appropriate bearing strata, or until pier refusal, whichever depth is greater. If the minimum installation torque is not achieved at the minimum overall length, and there is no maximum length constraint, we recommend the following options:

- The contractor should install the pier deeper using additional extension sections; or,

- The existing pier should be removed and a new one installed with additional and/or larger diameter helix plates. If a new pier is installed in the same location, the topmost helix of the new pier should be terminated at least 3 feet below the terminating depth of the original pier.

5.3.4 Spread Footing Design Recommendations

DESCRIPTION	VALUE
Foundation Type	Conventional Shallow Spread Footing
Structure	O & M Building
Bearing Material	Undisturbed Soils
Allowable Bearing Pressure	2,500 psf
Minimum Width for Continuous and Column Footings	16 inches and 24 inches, respectively
Minimum Embedment Depth Below Finished Grade	2 feet
Total Allowable Settlement	1-inch
Estimated Differential Settlement	½ to ¾ inch

The allowable foundation bearing pressures apply to dead loads plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that include wind or seismic conditions. The weight of the foundation concrete below grade may be neglected in dead load computations.

The general bearing capacity equation developed by Terzaghi was used to obtain the ultimate bearing pressure for the value provided in the table above. The following parameters were used in the equation: $N\gamma = 25$, $Nq = 25$, and the unit weight of the soil was 120 pcf. The footing width used in the equation was that of the continuous footing as it yields a lower bearing capacity. The factor of safety applied to the ultimate value was 3.0. The final answer was rounded down to the nearest 500 psf.

Footings should be proportioned to reduce differential foundation movement. Proportioning on the basis of equal total settlement is recommended; however, proportioning to relative constant dead-load pressure will also reduce differential settlement between adjacent footings. Additional foundation movements could occur if water from any source infiltrates the foundation soils; therefore, proper drainage should be provided in the final design and during construction.

5.3.4.1 Spread Footing Construction Considerations

For shallow spread footings bearing on undisturbed soil, the foundation excavations must be observed by a geotechnical engineer or a qualified representative to evaluate the bearing conditions prior to the placement of reinforcing steel and concrete. If undesirable (e.g., soft, loose, water softened, low density) materials are encountered in the foundation excavations, the excavations should be deepened to extend completely through the undesirable bearing materials. A lean concrete (slurry ABC with a minimum cement content of 2 sacks per cubic yard) material may be used as backfill to obtain a shallow, uniform footing depth for those foundation excavations that have been deepened. Alternatively, for the case where only a minor amount (i.e., less than six inches in thickness) of soft, loose, or disturbed soil is encountered at the base of a foundation excavation, the bottom could be mechanically compacted (hand tamped) to densify and improve this limited thickness of unsuitable soil, with the approval of the geotechnical engineer.

Foundations should be reinforced as necessary to reduce the potential for distress caused by differential foundation movement. The use of joints at openings or other discontinuities in masonry walls is recommended.

5.3.5 Mat Foundation Design Recommendations

DESCRIPTION	VALUE
Foundation Type	Mat Foundation
Structure	Drive Motor, Transformers and Slab Mounted Equipment
Bearing Material	Undisturbed Soils
Allowable Bearing Pressure	3,000 psf
Modulus of Subgrade Reaction (k)[1]	200 pci
Minimum Embedment Depth Below Finished Grade	2 feet
Total Allowable Settlement[2]	1-inch
Estimated Differential Settlement	½ to ¾ inch

[1]Note: It is common to reduce the k-value to account for dimensional effects of large loaded areas. A commonly used correction is: $k_c=k((b+1)/2b)^2$, where k_c is the corrected or design modulus value and b is the mat width or tributary loaded areas. The reinforced mat should be designed for sufficient rigidity to resist differential movement of ¾-inch acting over about 4 feet.

[2]Note: The total allowable settlement may be further reduced by preparing the subgrade soils to a minimum depth of 12 inches. Subgrade preparation should generally include scarification (or removal), moisture conditioning, and compaction. The moisture content and compaction of subgrade soils should be maintained until slab or pavement construction..

5.3.5.1 Mat Foundation Construction Considerations

For the mat foundations bearing on undisturbed soil, the foundation excavation must be observed by a geotechnical engineer or a qualified representative to evaluate the bearing conditions prior to the placement of the structures. If undesirable (e.g., soft, loose, water softened, low density) materials are encountered at the ground surface, the undesirable bearing materials should be removed and replaced with compacted (engineered) fill as recommended in the Earthwork section of this report.

5.3.6 Drilled Shaft Design Recommendations

Drilled shaft foundations, drilled a minimum of 10 feet or greater into natural soils are considered suitable for support of proposed pole mounted equipment on the project. Allowable vertical axial load capacities of drilled shaft foundations for various diameters are shown on Plate No. 8 in Appendix A. Uplift loads on drilled shafts can be resisted through the side shear developed between the walls of the shaft and the surrounding soils. Allowable shaft uplift load capacities are shown on Plate No. 9 in Appendix A. A factor of safety of 2.5 was applied to the ultimate load.

Drilled shafts should be considered to work in group action if the horizontal spacing is less than six shaft diameters. A minimum practical horizontal spacing between shafts of at least three diameters should be maintained, and adjacent shafts should bear at the same elevation. The capacity of individual shafts must be reduced when considering the effects of group action. Capacity reduction is a function of shaft spacing and the number of shafts within a group. If group action analyses are necessary, capacity reduction factors can be provided for the analyses.

Recommended soil parameters for lateral load analysis of drilled shaft foundations have been developed for use in LPILE or COM624 computer programs. Engineering properties have been estimated as outlined below:

Lateral Load Analysis Estimated Engineering Properties of Soils					
Top Depth Bottom Depth	**Unit Weight (pcf)**	**USCS Soil Type**	**Internal Friction ϕ**	**Cohesion (psf)**	**Modulus of Subgrade Reaction K_s (pci)[1]**
0 15	110	SM	31º	--	25[2]
15 20	110	SP	32º	--	25[2]

[1] Note: These values are based upon parameters for LPILE or COM624P analyses.

[2.] Note: This value increases linearly with depth an amount equal to the modulus and is independent of shaft diameter.

Lateral load design parameters are valid within the elastic range of the soil. The passive pressure, soil modulus and coefficient of subgrade reaction are ultimate values; therefore, appropriate factors of safety should be applied in the shaft design or deflection limits should be applied to the design.

5.3.6.1 Drilled Shaft Construction Considerations

Drilling to design depth should be possible with conventional single flight power augers. Shafts will probably remain open without stabilizing measures. However, pier concrete should be placed soon after completion of drilling and cleaning. Due to potential sloughing and raveling, foundation concrete quantities may exceed calculated geometric volumes. Pier concrete with slump in the range of 4 to 6 inches is recommended.

If casing is used for pier construction, it should be withdrawn in a slow continuous manner maintaining a sufficient head of concrete to prevent infiltration of water or the creation of voids in pier concrete. Pier concrete should have a relatively high fluidity when placed in cased pier holes or through a tremie. Pier concrete with slump in the range of 6 to 8 inches is recommended.

Free-fall concrete placement in drilled shafts will only be acceptable if provisions are taken to avoid striking the concrete on the sides of the hole or reinforcing steel. The use of a bottom-dump hopper, or an elephant's trunk discharging near the bottom of the hole where concrete segregation will be minimized, is recommended.

Shaft bearing surfaces must be cleaned prior to concrete placement. A representative of the geotechnical engineer should inspect the bearing surface and shaft configuration prior to the placement of reinforcing steel and concrete.

5.3.7 Slab Mounted Equipment Support

As presently planned, the proposed ancillary equipment pads will be supported on a concrete slab-on-grade with turn down edges. Turn down edges should extend to a minimum of 18-inches. We understand the turn down edges will be a minimum of 12 inches in width.

The footings may be designed for a maximum bearing pressure of 1,000 psf when bearing on undisturbed soils. The design bearing pressure applies to dead loads plus design live load

conditions. The design bearing pressure may be increased by one-third when considering total loads that include wind or seismic conditions.

Foundations and slabs should be reinforced as necessary to reduce the potential for distress caused by differential foundation movement. Foundation excavations should be observed by the geotechnical engineer. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

5.4 Floor Slabs

5.4.1 Design Recommendations

FLOOR SLAB DESIGN RECOMMENDATIONS	
Interior floor system	Slab-on-grade concrete in O&M Building.
Floor slab support	On-site soils or approved imported soils placed and compacted in accordance with Earthwork section of this report.
Subbase	4 inches ABC material
Modulus of subgrade reaction	200 pci

The on-site surface and near surface soils are expected to exhibit low expansive potentials when compacted and subjected to light loading conditions such as those imposed by floor slabs. Construction of floor slabs directly on compacted fills composed of approved on-site soils or approved imported soils are considered acceptable for the project.
Additional floor slab design and construction recommendations are as follows:

- Positive separations and/or isolation joints should be provided between slabs and all foundations, columns or utility lines to allow independent movement.
- Control joints should be provided in slabs to control the location and extent of cracking.
- Other design and construction considerations, as outlined in the ACI Design Manual, Section 302.1R are recommended.

5.4.2 Construction Considerations

Some differential movement of a slab-on-grade floor system is possible should the subgrade soils become elevated in moisture content. Such movements are anticipated to be within general tolerance for normal slab-on-grade construction. To reduce potential slab movements, the subgrade soils should be prepared as outlined in the Earthwork section of this report.

5.5 Seismic Considerations

The following site specific seismic design parameters are recommended in accordance with the 2007 California Building Code (CBC).

CBC (2007) SEISMIC DESIGN COEFFICIENTS	
DESCRIPTION	**VALUE**
2006 International Building Code Site Classification (IBC) [1]	D [2]
Mapped Spectral Response Acceleration Parameter, S_s (Figure 1613.5(3) for 0.2 second)	1.50
Mapped Spectral Response Acceleration Parameter, S_1 (Figure 1613.5(4) for 1.0 second)	0.66
Site Coefficient, F_a (Table 1613.5.3(1) short period)	1.0
Site Coefficient, F_v (Table 1613.5.3(2) 1-second period)	1.5
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter, S_{MS} (eq. 16-37)	1.50
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter, S_{M1} (eq. 16-38)	0.99
Design Spectral Response Acceleration Parameter, S_{DS} (Figure 16.39)	1.00
Design Spectral Response Acceleration Parameter, S_{D1} (Figure 16.40)	0.66

[1] Note: In general accordance with the *2006 International Building Code,* Table 1613.5.2. IBC Site Class is based on the average characteristics of the upper 100 feet of the subsurface profile.

[2] Note: The 2006 International Building Code (IBC) requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100 foot soil profile determination. Borings extended to a maximum depth of 20 feet, and this seismic site class definition considers that stiff soil continues below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.

Reference: CBC (2007) Chapter 16 Section 1613 – Earthquake Loads

5.6 Pavements

5.6.1 Design Recommendations

Pavement sections based upon a more detailed pavement design could be provided if specific traffic loading, frequencies, and desired pavement design life are provided. As a minimum, we suggest the following typical pavement sections be considered.

Traffic Area	Alternative	Recommended Pavement Section Thickness (inches)			
		Asphalt Concrete Surface	Portland Cement Concrete	Aggregate Base Course	Total
Automobile Parking Areas	A	3.0		4.0	7.0
	B		5.0	4.0	9.0
Main Drives & Truck Access Areas	A	3.0		6.0	9.0
	B		6.0	4.0	10.0

The design approach used to populate the above table was based on the National Asphalt Pavement Association (NAPA), which is specific to low-volume pavements. Portland Cement Concrete (PCC) pavement thicknesses were based on the American Concrete Institute (ACI) design recommendations.

The design of pavement thickness was based on the following:

- Traffic Class I for the parking lot includes a maximum total ESAL's of 240
- Traffic Class II for the driveways and truck access lanes includes a maximum total ESAL's of 14,400
- A soil characterization of "good" based on the sand soils encountered at the site
- A design life of 20 years

These pavement sections are considered minimal sections based upon the expected traffic and the existing subgrade conditions. However, they are expected to function with periodic maintenance and overlays if good drainage is provided and maintained.

All concrete for rigid pavements should have a minimum 28-day compressive strength of 4,000 psi, and be placed with a maximum slump of four inches. Although not required for structural support, a minimum four-inch thick base course layer is recommended to help reduce potentials for slab curl, shrinkage cracking, and subgrade "pumping" through joints. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. All joints should be sealed to prevent entry of foreign material and dowelled where necessary for load transfer.

5.6.2 Construction Considerations

Materials and construction of pavements for the project should be in accordance with the requirements and specifications of the California Department of Transportation (CalTrans).

Base course or pavement materials should not be placed when the surface is wet. Surface drainage should be provided away from the edge of paved areas to minimize lateral moisture transmission into the subgrade.

5.7 Lateral Earth Pressures

ITEM	VALUE
Active Case	40 psf/ft
Passive Case	360 psf/ft
At-Rest Case	60 psf/ft
Coefficient of Base Friction (Zone 1)	0.50[1]
Coefficient of Base Friction (Zone 2)	0.45[2]

[1]Note: The coefficient of base friction should be reduced to 0.40 when used in conjunction with passive pressure.
[2]Note: The coefficient of base friction should be reduced to 0.30 when used in conjunction with passive pressure.

The lateral earth pressures herein do not include any factor of safety and are not applicable for submerged soils/hydrostatic loading. Additional recommendations may be necessary if such conditions are to be included in the design.

The coefficient of base friction is based on the tangent of the friction angle value for the soil of 32 and 30 degrees for Zone 1 and Zone 2, respectively. An uncertainty factor of 1.0 was assumed for concrete cast-in-place against the sand soils. A resistance factor of 0.8 was multiplied by the tangent of the friction angle to obtain the values presented above.

Fill against foundation and retaining walls should be compacted to densities specified in the Earthwork section of this report. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors.

6.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. A licensed engineer practicing in the field of geotechnical engineering should be retained to provide observation and testing services during grading, excavation, foundation construction and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of weather. The nature and extent of such variations may

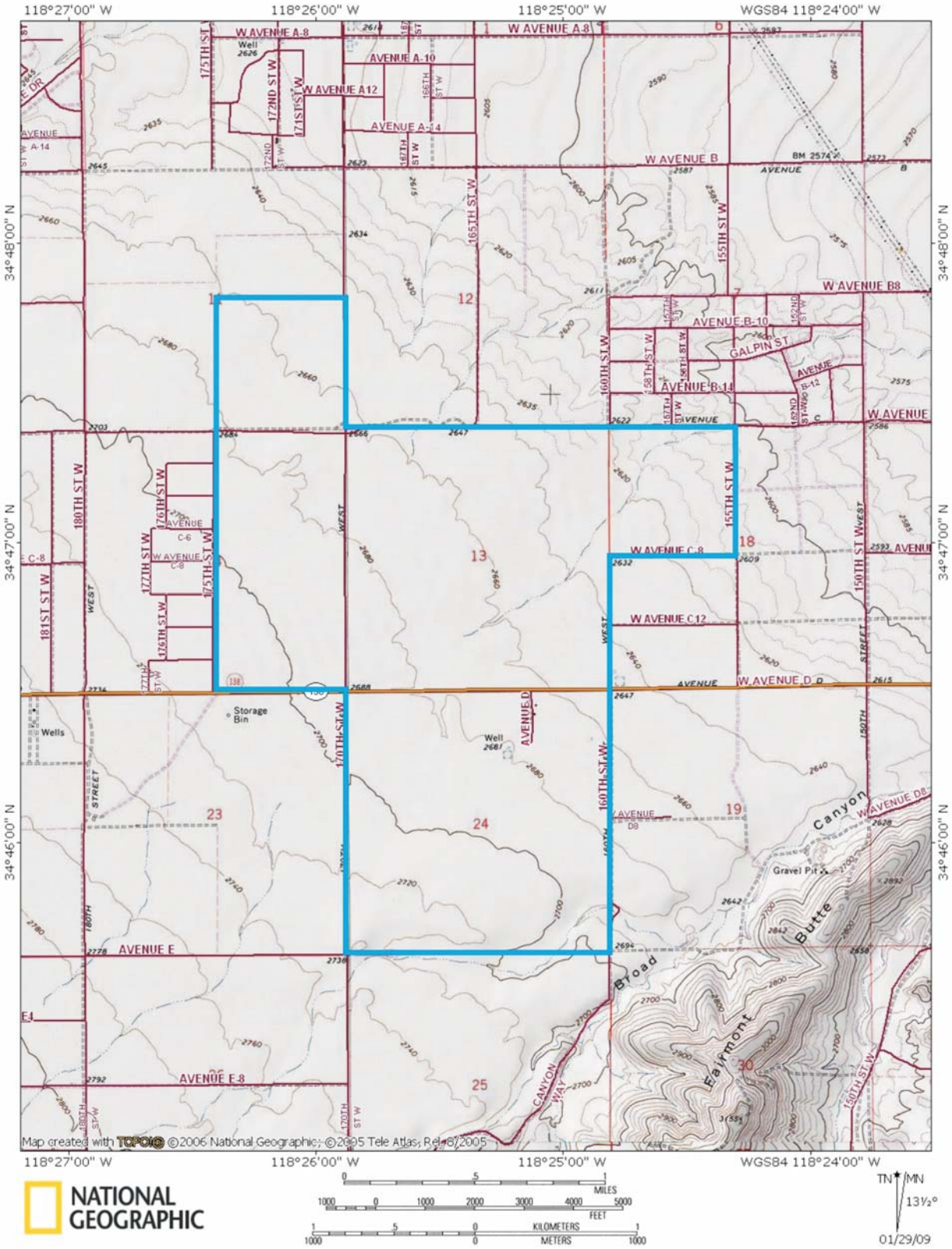
not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A

PLATES



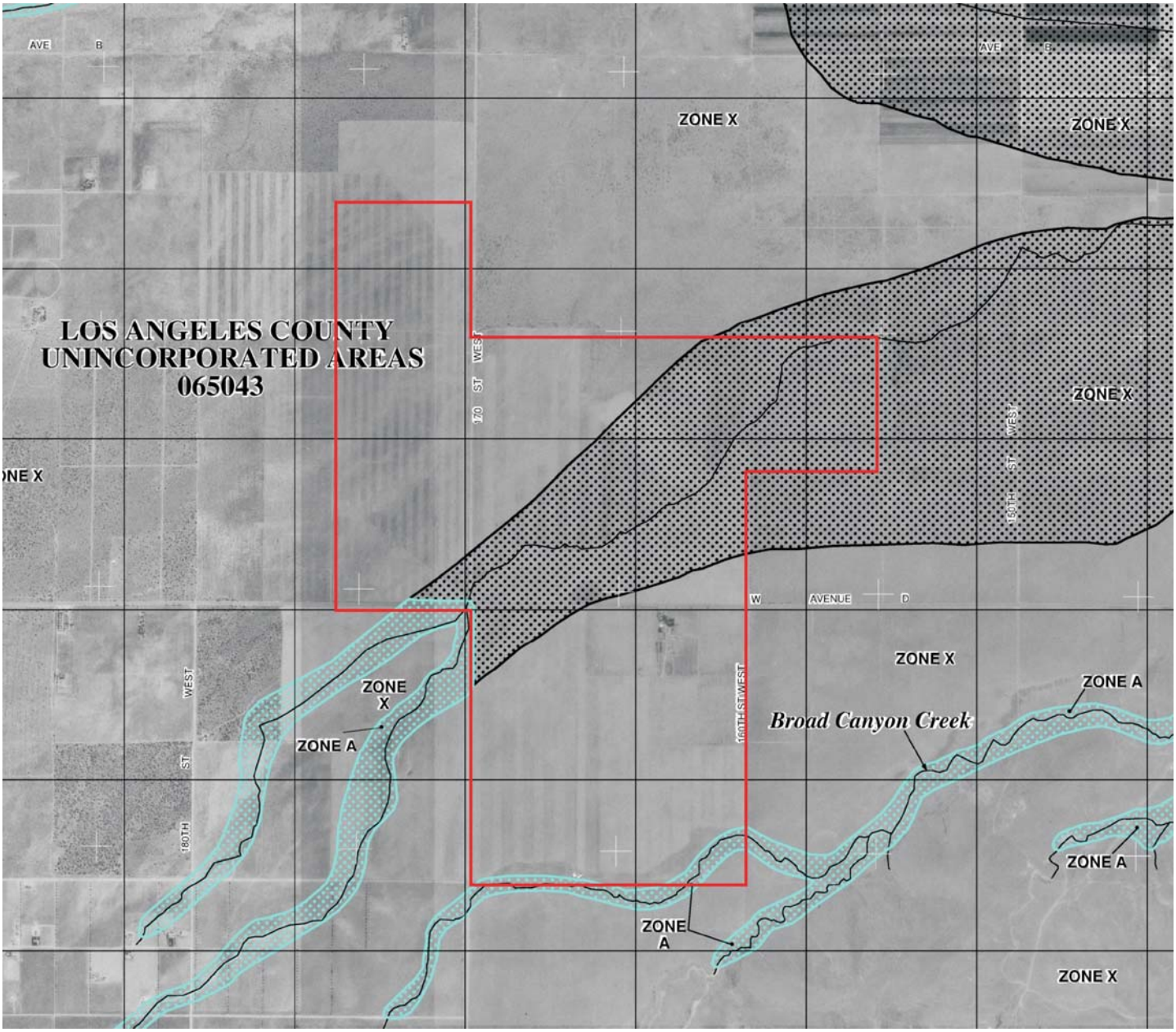
NATIONAL GEOGRAPHIC

TOPOGRAPHIC MAP
ANTELOPE VALLEY SOLAR RANCH I
170th STREET WEST AND AVENUE D
LANCASTER, CALIFORNIA
For NextLight Renewable Power, LLC

Project Mngr:	IUM	Terracon	Project No.	60085038
Designed By:	JP		Scale:	Not to scale
Checked By:	IUM	16662 Millikan Avenue Irvine, California 92606	Date:	01-26-2008
Approved By:			Drawn By:	JP
File Name: \Plate_1.cdr		L(Layout1)	Plate No.	1

Reference: USGS Fairmont Butte, California 7.5-minute Quadrangle (Photorevised 1995)

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES



LEGEND:

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

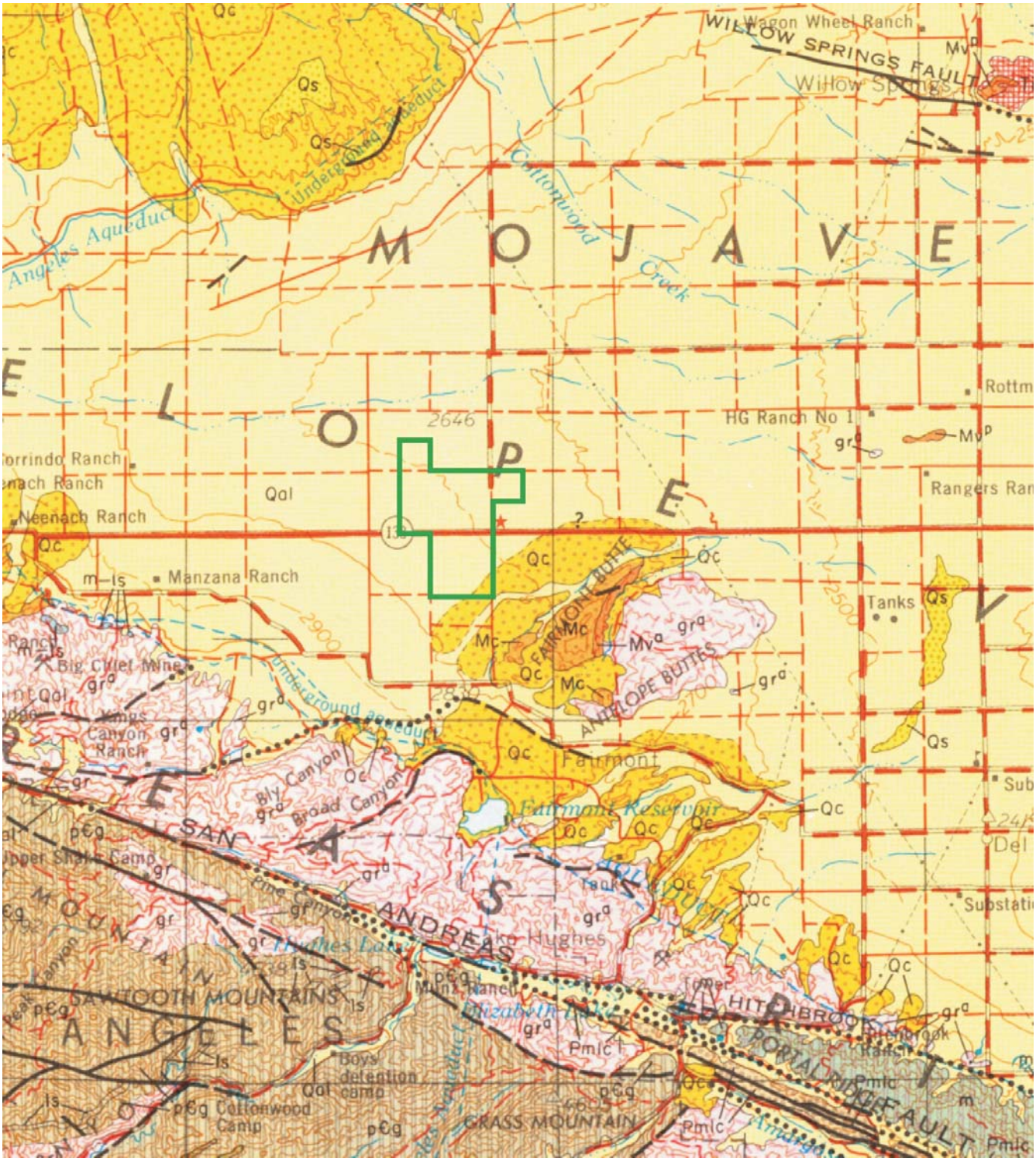
ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

Reference: FEMA, Map Item 06037C0125F, dated September 26, 2008.

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

FLOOD PLAIN MAP
ANTELOPE VALLEY SOLAR RANCH I
170th STREET WEST AND AVENUE D
LANCASTER, CALIFORNIA
For NextLight Renewable Power, LLC

Project Mngr:	IUM	Terracon	Project No.	60085038
Designed By:	JP		Scale:	Not to scale
Checked By:	IUM	16662 Millikan Avenue Irvine, California 92606	Date:	01-26-2008
Approved By:	KK		Drawn By:	JP
File Name:	\Plate_2.cdr	L(Layout1)	Plate No.	2



Legend:

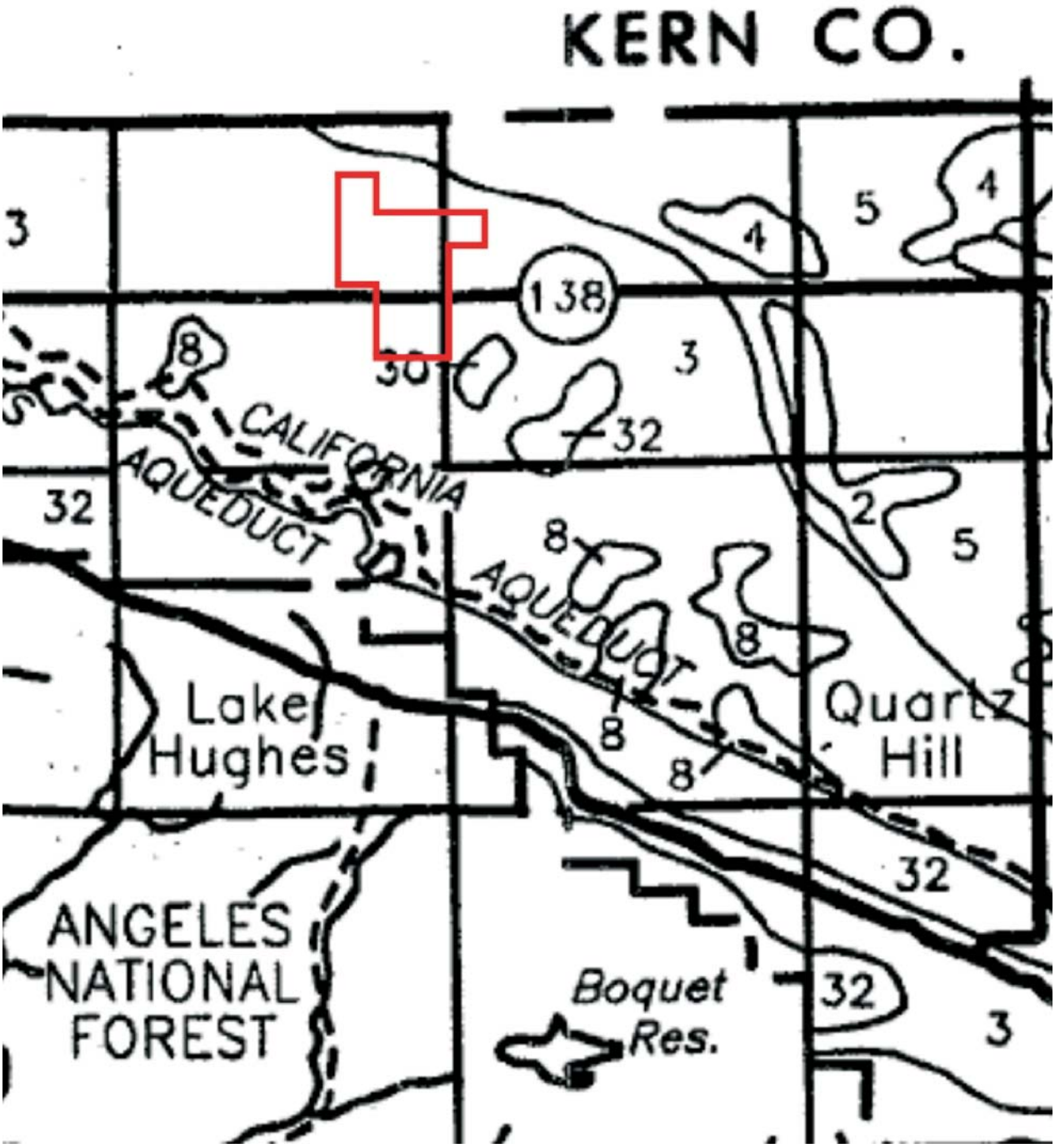
Qc	Pleistocene nonmarine
Qal	Alluvium

Reference: CDMG, "Geologic Map of the Santa Ana Sheet, California," 1992.

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

GEOLOGY MAP
ANTELOPE VALLEY SOLAR RANCH I
170th STREET WEST AND AVENUE D
LANCASTER, CALIFORNIA
For NextLight Renewable Power, LLC

Project Mngr:	IUM	Terracon	Project No.	60085038
Designed By:	JP		Scale:	Not to scale
Checked By:	IUM	16662 Millikan Avenue Irvine, California 92606	Date:	01-26-2008
Approved By:			Drawn By:	JP
File Name:	\Plate_3.cdr	L(Layout1)	Plate No.	3



Legend:

3 - Hanford - Greenfield Association

Reference:USDA, Natural Resources Conservation Service Soil Survey, issued 1969.

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

SOIL SURVEY MAP
ANTELOPE VALLEY SOLAR RANCH I
170th STREET WEST AND AVENUE D
LANCASTER, CALIFORNIA
For NextLight Renewable Power, LLC

Project Mngr:	IUM	Terracon	Project No.	60085038
Designed By:	JP		Scale:	Not to scale
Checked By:	IUM	16662 Millikan Avenue Irvine, California 92606	Date:	01-26-2008
Approved By:			Drawn By:	JP
File Name:	\Plate_4.cdr	L(Layout1)	Plate No.	4

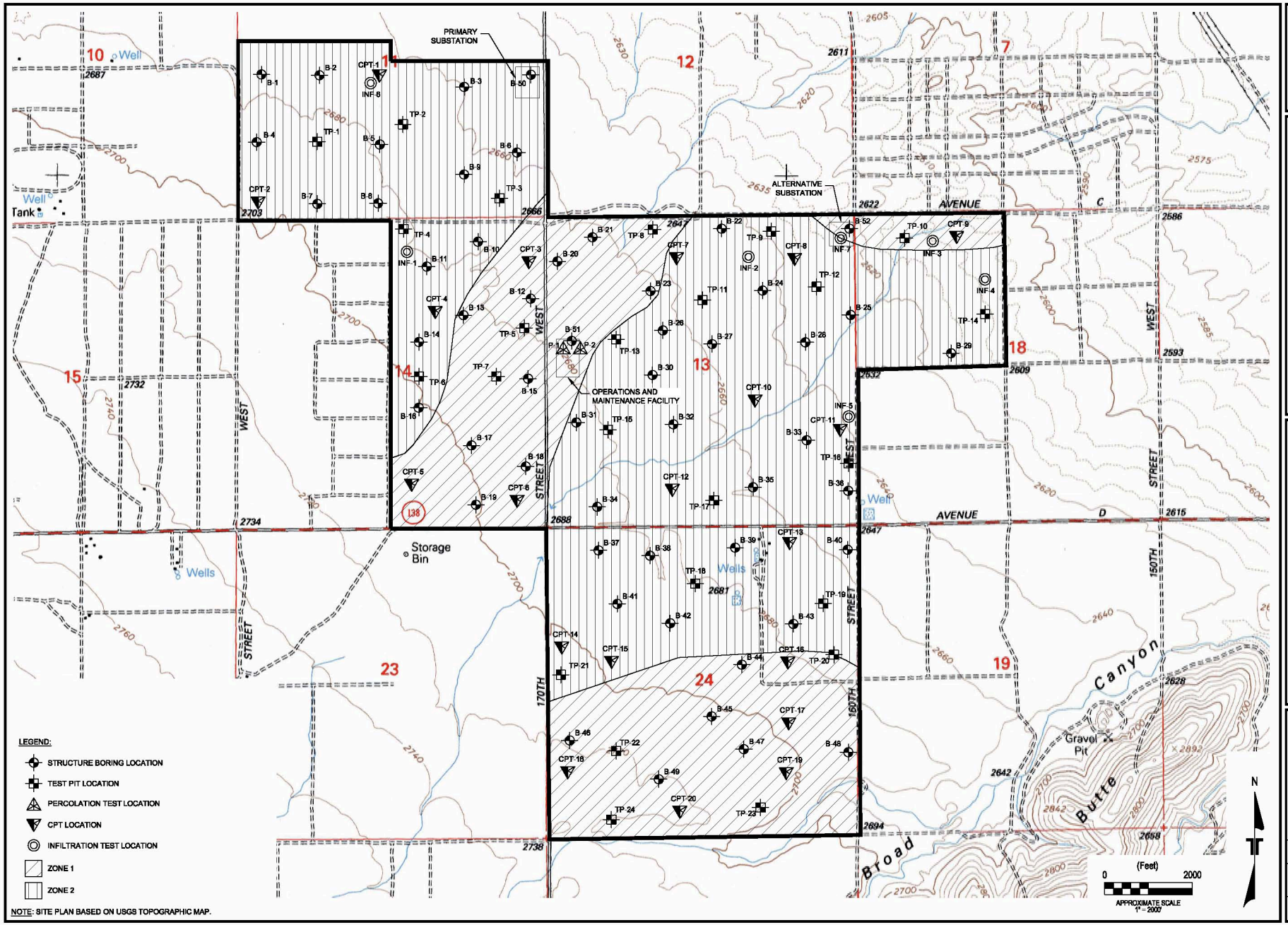


PLATE NO. 5	
PROJECT MNGR.	PFB
DRAWN BY:	ADB
APPVD BY:	SDN
SCALE:	AS SHOWN
DATE:	07/01/2008
JOB NO.	80080B
ACAD NO.	80080B.DWG
SHEET NO:	1 OF 2

SITE PLAN AND BORING LOCATIONS

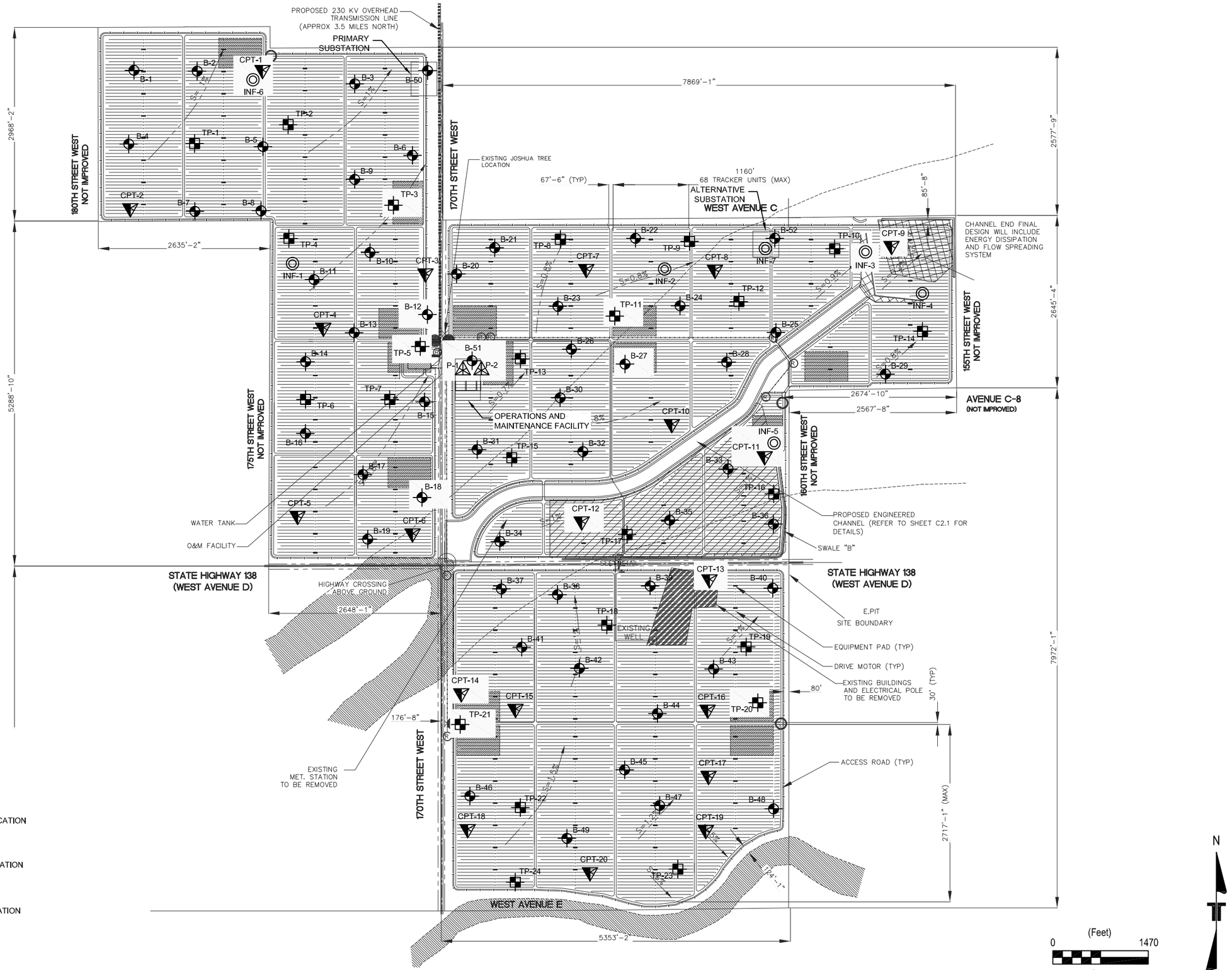
ANTELOPE VALLEY SOLAR RANCH 1

WEST AVENUE D AND 170TH AVENUE WEST

LANCASTER CALIFORNIA

Terracon
Consulting Engineers and Scientists
4666 South Ash Avenue, Suite H-4
PH: (480) 897-6030
Tempe, AZ 85282
FAX: (480) 897-1133

REV.	DATE	BY	DESCRIPTION



LEGEND:

- STRUCTURE BORING LOCATION
- TEST PIT LOCATION
- PERCOLATION TEST LOCATION
- CPT LOCATION
- INFILTRATION TEST LOCATION
- ZONE 1
- ZONE 2

NOTE: SITE PLAN BASED ON USGS TOPOGRAPHIC MAP.

PLATE NO. 5	
PROJECT MNGR:	PPB
DRAWN BY:	ADB
APPVD. BY:	SDN
SCALE:	AS SHOWN
DATE:	07/01/2009
JOB NO.	60085038
ACAD NO.	60085038.DWG
SHEET NO.:	2 OF 2

SITE PLAN AND BORING LOCATIONS

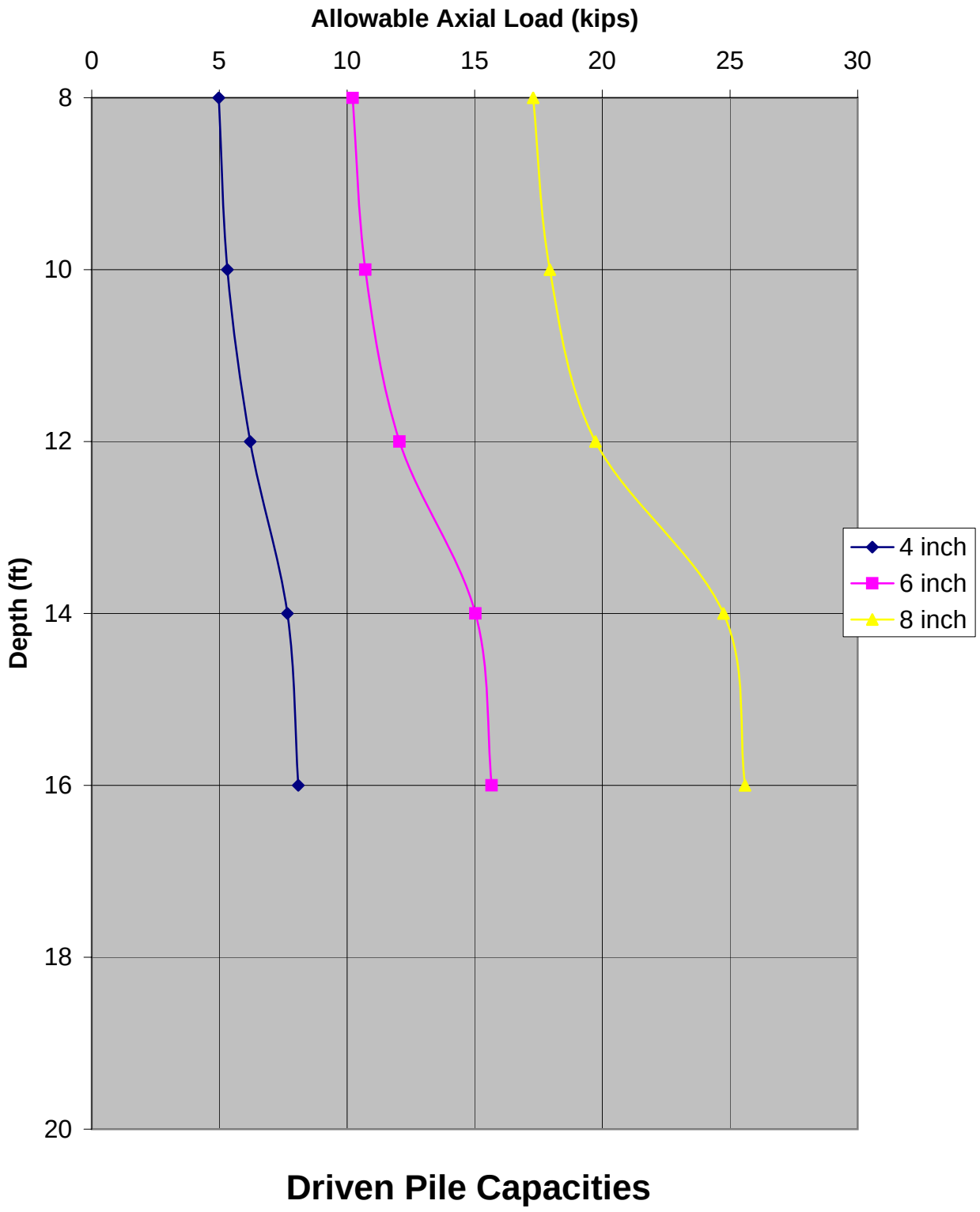
ANTELOPE VALLEY SOLAR RANCH 1

WEST AVENUE D AND 170TH AVENUE WEST

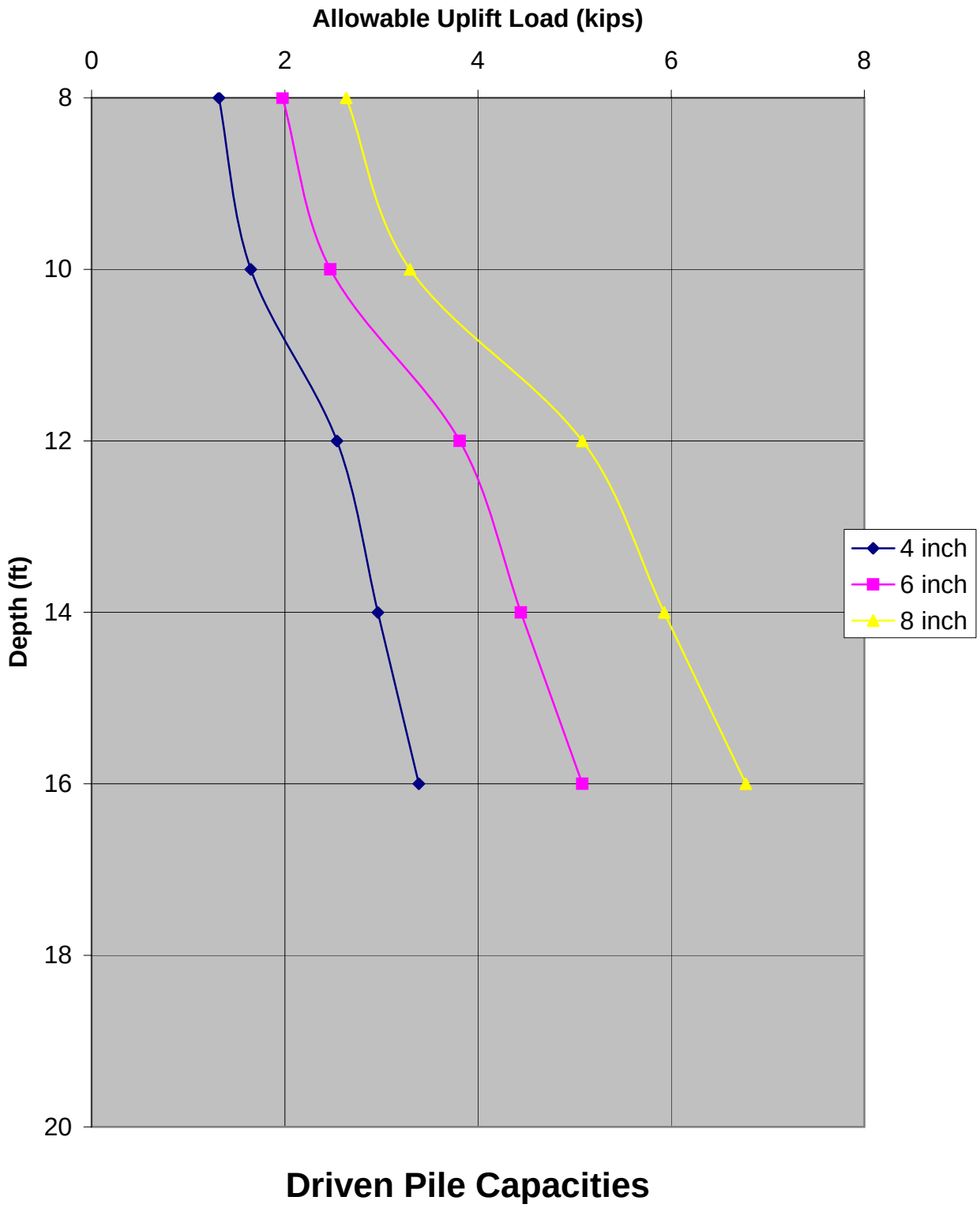
LANCASTER CALIFORNIA

Terracon
Consulting Engineers and Scientists
4685 South Ash Avenue, Suite H-4
PH. (480) 897-8200
Tempe, AZ 85282
FAX. (480) 897-1133

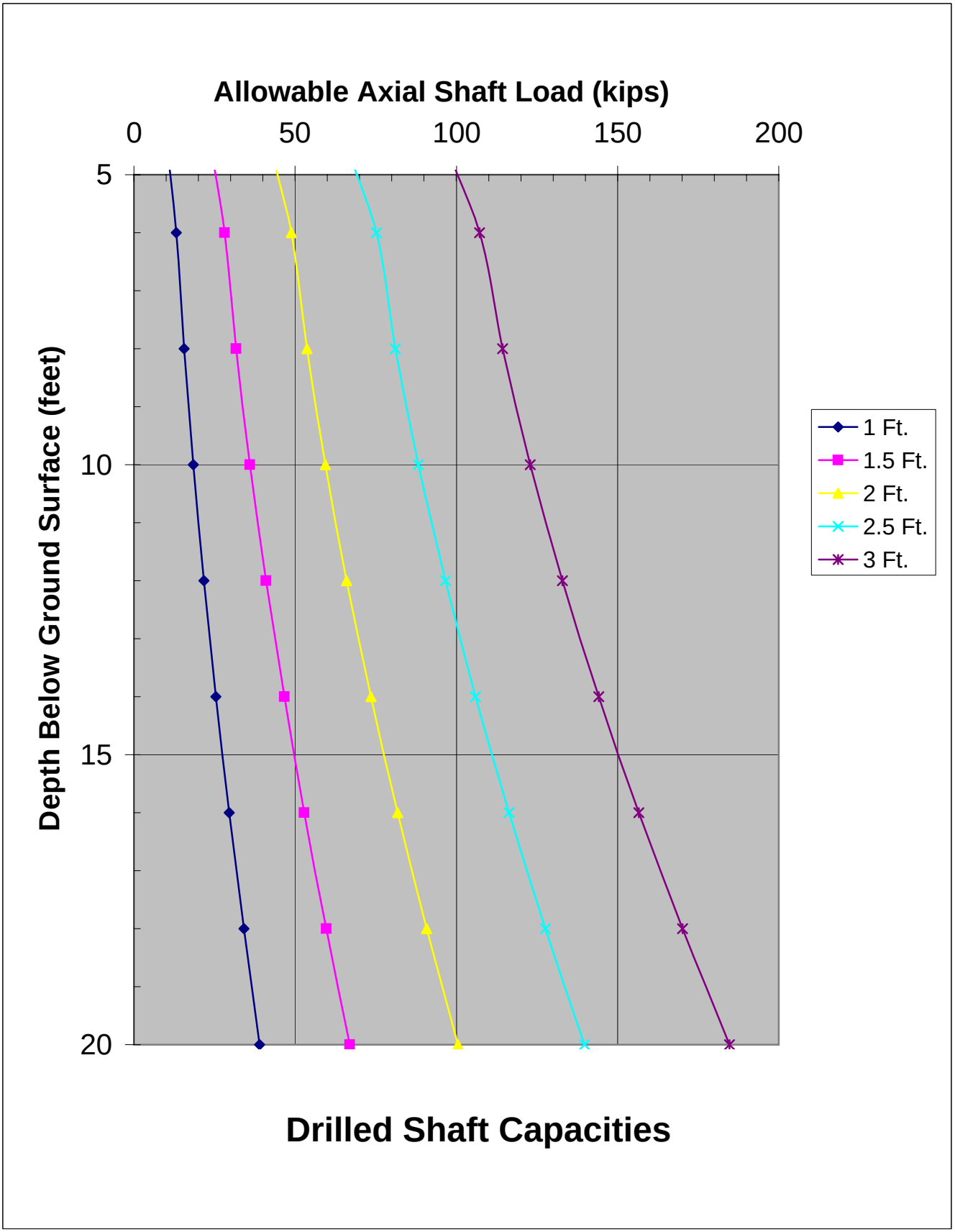
REV.	DATE	BY	DESCRIPTION

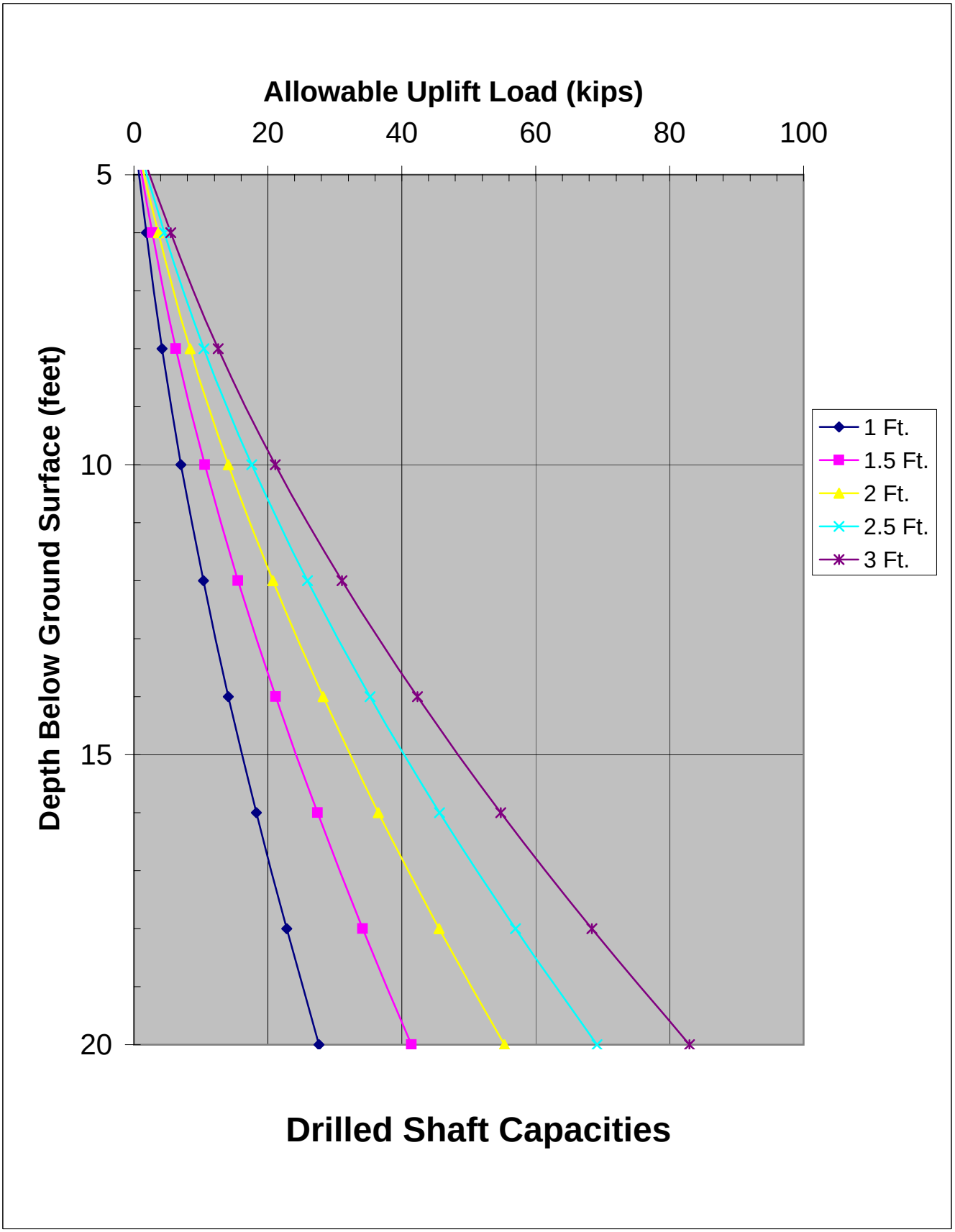


Driven Pile Capacities



Driven Pile Capacities


Allowable Axial Shaft Load (kips)
0
50
100
150
200
5
10
15
20
Depth Below Ground Surface (feet)
1 Ft.
1.5 Ft.
2 Ft.
2.5 Ft.
3 Ft.
Drilled Shaft Capacities


Allowable Uplift Load (kips)
0
20
40
60
80
100
5
10
15
20
Depth Below Ground Surface (feet)
1 Ft.
1.5 Ft.
2 Ft.
2.5 Ft.
3 Ft.
Drilled Shaft Capacities

APPENDIX B

FIELD EXPLORATION

Field Exploration Description

Our geotechnical engineering scope of work for this project included the subsurface tests listed in the table below. The approximate locations of the tests are shown on the attached Site Plan and Field Exploration diagram, Plate 5, 1 of 2 and 2 of 2.

SUBSURFACE TESTS			
Test Type	**Number of Tests**	**Test Date(s)**	**Depth**
Test Boring	52	May 27-29, 2009	20½ to 21½ feet
Test Pit	24	June 1-2, 2009	6 to 10 feet
Cone Penetrometer Test (CPT)	20	June 1-2, 2009	30 to 50 feet
Percolation Test	2	May 28, 2009	10 feet
Infiltration Test	7	June 17-20, 2009	1 foot

Test borings were advanced with a truck-mounted drilling rig, utilizing 7½-inch diameter hollow-stem auger. CPT soundings were advanced with a 30-ton truck providing the reaction weight for pushing the cone assembly into the ground at a constant rate of 20-mm per second (approximately four feet per minute). The cone tip resistance and sleeve friction resistance were recorded every 2-cm (approximately ¾-inch) and stored in digital form.

The borings, test pit, CPT soundings, percolation tests, and infiltration tests were located by using a site plan and a hand-held Global Positioning System (GPS) device.

Continuous lithologic logs of each boring and test pit were recorded by field geologists during the drilling operations. At selected intervals, samples of the subsurface materials were taken by driving split-spoon or ring-barrel samplers. Bulk samples of subsurface materials were also obtained.

Penetration resistance measurements were obtained by driving the split-spoon and ring-barrel samplers into the subsurface materials with a 140-pound automatic hammer falling 30 inches. The penetration resistance value is a useful index in estimating the consistency or relative density of materials encountered. The interior of the cone penetrometer is instrumented with strain gauges that allow simultaneous measurement of cone tip and friction sleeve resistance during penetration. Continuous electric signals from the strain gauges are transmitted by a shielded cable in the sounding rods to the PC-based data acquisition hardware in the CPT truck. The sounding log is also displayed on a monitor.

Groundwater conditions were evaluated in each boring at the time of site exploration.

LOG OF BORING NO. B-01

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, damp, no cementation, some silt.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		34	2	119		
	POORLY GRADED SAND with SILT - brown and white, damp, medium dense, trace silt.	5, 6, 7, 8, 9	SP		RS		29	1	110		
	CLAYEY SAND - brown, damp, medium dense, trace gravel, no cementation.	10, 11, 12, 13, 14	SC		RS		56	6	111		
		15, 16, 17, 18, 19	SC		RS		38	4	109		
	- very dense, some silt.	20, 21	SC		RS		95/11"	4	117		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	NE	
WL		
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	A-1

LOG OF BORING NO. B-02

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- medium dense, trace gravel.	3, 4	SM		RS		36	3	109		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained.	5, 6	SP SM		RS		24	1	111		
	POORLY GRADED SAND with GRAVEL - brown, damp, medium dense, some medium to coarse grained sand, fine gravel.	7, 8, 9, 10, 11, 12, 13, 14	SP		RS		30	0			
	SILTY SAND - brown, damp, dense, fine to coarse grained, some fine gravel.	15, 16, 17, 18, 19	SM		RS		36				
	POORLY GRADED SAND - brown, damp, very dense, fine to coarse grained.	20	SP		RS		50/6"	1			

Total depth of 20.5 feet.
No groundwater encountered.
Backfilled with soil cuttings.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	NE	
WL		
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	A-2

LOG OF BORING NO. B-03

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SILTY SAND - brown, damp, no cementation, low plastic fines.	1, 2	SC SM		BS						
	SILTY SAND - brown, damp, loose, non plastic fines, no cementation.	3, 4	SM		RS		17	2	112		
	POORLY GRADED SAND with SILT and GRAVEL - light brown, damp, medium dense, non plastic fines, no cementation.	5, 6, 7	SP SM		RS		22	1	108		
	POORLY GRADED SAND - white and brown, damp, medium dense, some silt and gravel, no cementation.	8, 9, 10, 11, 12, 13, 14	SP		RS		23	1	104		
		15, 16, 17, 18, 19	SP		RS		49	3	111		
	CLAYEY SILTY SAND - brown, damp, medium dense, low plastic fines, no cementation.	20, 21	SC SM		RS		36	6	110		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	A-3

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-04

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SAND - brown, damp, medium plasticity.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		48	4	103		
	- low plasticity, trace fine gravel.	5, 6	SC		RS		22	3	110		
		7, 8, 9, 10	SC		RS		46	3	113		
	- dense.	11, 12, 13, 14, 15, 16	SC		RS		59	3	115		
	- medium dense.	17, 18, 19, 20, 21	SC		RS		46	4	112		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-4**

LOG OF BORING NO. B-05

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained sand.	1	SM		BS						
	- medium dense.	3	SM		RS		30	2	109		
	WELL GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained sand, some fine gravel.	6	SW SM		RS		32	2			
		11	SW SM		RS		18	1			
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained sand, some silt and fine gravel.	16	SP		RS		28	1			
	- trace silt.	21	SP		RS		30	1	114		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-5**

LOG OF BORING NO. B-06

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, damp, low plastic fines.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		18	3	112		
	POORLY GRADED SAND - white and brown, damp, medium dense, trace silt, some gravel.	5, 6, 7, 8, 9	SP		RS		34	1			
	CLAYEY SILTY SAND - brown, damp, medium dense, low plasticity fines.	10, 11, 12, 13, 14	SC SM		RS		26	1	114		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, non plastic fines, some fine gravel.	15, 16, 17	SP SM		RS		49	1	111		
	CLAYEY SAND - brown, damp, medium dense, low plasticity.	18, 19, 20, 21	SC		RS		45	5	106		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-6**

LOG OF BORING NO. B-07

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained sand, trace fine gravel.	1	SM		BS						
		2									
	- loose.	3	SM		RS		12	2	106		
		4									
	WELL GRADED SAND - red gray, damp, loose, fine to coarse grained.	5	SW								
		6			RS		13	3	103		
		7									
		8									
		9									
	POORLY GRADED SAND - brown, damp, medium dense, fin to coarse grained sand, some fine gravel.	10	SP								
		11			RS		35	1	96		
		12									
		13									
		14									
	WELL GRADED SAND with SILT - red gray, damp, medium dense, fine to coarse grained sand, some fine gravel.	15	SW SM								
		16			RS		27	3			
		17									
		18									
		19									
		20									
		21			RS		16	1	87		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-7**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-08

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, some fine to medium grained sand.	1	SM		BS						
	- medium dense.	3	SM		RS		18	2			
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained sand, some silt.	6	SP		RS		20	1	107		
	SILTY SAND - brown, damp, medium dense, fine to coarse grained sand.	11	SM		RS		22	3	104		
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained.	16	SP		RS		44	1	100		
	- some fine gravel.	21	SP		RS		30	1	94		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-8**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-09

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, damp, low to moderate plasticity, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		25	3	114		
		5, 6	SC		RS		25	1	111		
	POORLY GRADED SAND with GRAVEL - white and brown, damp, medium dense, trace silt, no cementation.	7, 8, 9, 10, 11	SP		RS		27	1	114		
	stratified with lenses of sandy lean clay (CL)	12, 13, 14, 15, 16	SP		RS		33	1	110		
	CLAYEY SAND - brown, damp, medium dense, low plasticity, no cementation.	17, 18, 19, 20, 21	SC		RS		33	2	109		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-9**

LOG OF BORING NO. B-10

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to medium grained sand, some silt.	1, 2	SP		BS						
	- medium dense.	3, 4	SP		RS		18	5	100		
	- fine to coarse grained.	5, 6	SP		RS		22	2	110		
		7, 8, 9, 10									
		11	SP		RS		30	1	106		
		12, 13, 14, 15									
	- fine gravel.	16	SP		RS		40	1			
		17, 18, 19, 20									
	SILTY SAND - brown, damp, medium dense, fine to medium grained sand, some coarse grained sand.	21	SM		RS		47	2	106		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-10**

LOG OF BORING NO. B-11

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, some fine gravel.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		22	4	108		
	POORLY GRADED SAND with SILT - brown, damp, loose, fine to coarse grained sand, some fine gravel.	5, 6, 7, 8, 9	SP SM		RS		16	2	108		
	WELL GRADED SAND - brown, damp, medium dense, fine to coarse grained.	10, 11, 12, 13, 14	SW		RS		34	1	101		
		15, 16, 17, 18, 19	SW		RS		54	2	116		
		20, 21	SW		RS		47	1	109		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-11**

LOG OF BORING NO. B-12

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SAND - brown, moist, low plastic fines, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		18	2	111		
	POORLY GRADED SAND - white and brown, damp, loose, trace silt, some fine gravel, no cementation.	5, 6, 7, 8, 9	SP		RS		13	1	116		
	CLAYEY SILTY SAND - brown, damp, medium dense, low plastic fines, no cementation.	10, 11, 12, 13, 14	SC SM		RS		27	1	115		
	CLAYEY SAND - brown, damp, dense, low plastic fines, no cementation.	15, 16, 17, 18, 19	SC		RS		69/11"	5	113		
	SILTY SAND - brown, damp, medium dense, non plastic fines, no cementation.	20, 21	SM		RS		56	3	124		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-27-09		
BORING COMPLETED	5-27-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-12**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-13

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILT with SAND - brown, damp, fine to medium grained sand.	1, 2	ML		BS						
	SILTY SAND - brown, dame, medium dense, fine to medium grained sand.	3, 4	SM		RS		28	2	108		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to medium grained, some coarse grained.	5, 6	SP SM		RS		26				
	- damp, medium dense, fine to coarse grained.	10, 11	SP SM		RS		30	0	116		
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained sand, some fine gravel.	15, 16	SP		RS		46	1			
		20, 21	SP		RS		39	1	111		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-13**

LOG OF BORING NO. B-14

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		24	3	100		
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained.	5, 6	SP		RS		27	1	95		
		10, 11	SP		RS		51	1	109		
		15, 16	SP		RS		48	4	105		
	- some fine gravel.	20, 21	SP		RS		55	2	94		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-27-09
BORING COMPLETED			5-27-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-14**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-15

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SILTY SAND - brown, moist, low plastic fines, no cementation.	1	SC SM		BS						
		2									
	- medium dense.	3	SC SM		RS		21	4	109		
		4									
	SILTY SAND - brown, damp, medium dense, trace fine gravel, no cementation.	5	SM		RS		26	2	118		
		6									
		7									
		8									
		9									
	POORLY GRADED SAND - white and brown, damp, medium dense, trace silt and fine gravel, no cementation.	10	SP		RS		31	1	115		
		11									
		12									
		13									
		14									
		15	SP		RS		40	1	110		
		16									
		17									
		18									
		19									
	SILTY SAND - brown, damp, dense, trace fine gravel.	20	SM		RS		83	5	115		
		21									
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	5-27-09
WL	▽	▼	BORING COMPLETED	5-27-09
WL	▼	▼	RIG CME-75	Logged by: JNH
BORING LOCATION See Boring Location Plan			JOB # 60085038	PLATE **A-15**

Terracon

LOG OF BORING NO. B-16

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	WELL GRADED SAND - red gray, damp, fine to coarse grained.	1	SW		BS						
		2									
	- loose.	3	SW		RS		11	2	102		
		4									
		5	SW		RS		12	1	105		
		6									
		7									
		8									
		9									
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained.	10	SP		RS		20	1	102		
		11									
		12									
		13									
		14									
	- some fine gravel.	15	SP		RS		26	2	103		
		16									
		17									
		18									
		19									
	- dark brown, fine to medium grained sand, no gravel.	20	SP		RS		41	5	105		
		21									
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	5-27-09
WL	▼	▼	BORING COMPLETED	5-27-09
BORING LOCATION	See Boring Location Plan		RIG CME-75	Logged by: MAR
			JOB # 60085038	PLATE **A-16**

Terracon

LOG OF BORING NO. B-17

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, low plastic fines, no cementation.	1, 2	SC		BS						
	- loose, sample disturbed.	3, 4	SC		RS		13	3	73		
	- medium dense.	5, 6	SC		RS		25	2	116		
	SILTY SAND - light brown, damp, medium dense, fine to coarse grained, trace fine gravel, no cementation.	10, 11	SM		RS		48	5	112		
	CLAYEY SILTY SAND - brown, damp, medium dense, low plastic fines, no cementation.	15, 16	SC SM		RS		33	3	112		
	POORLY GRADED SAND with GRAVEL - white and brown, damp, medium dense, fine to coarse grained, fine gravel, trace silt, no cementation.	20, 21	SP		RS		41	1	112		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	5-28-09
WL	▼	▼	BORING COMPLETED	5-28-09
BORING LOCATION	See Boring Location Plan		RIG CME-75	Logged by: JNH
			JOB # 60085038	PLATE **A-17**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-18

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, low plastic fines, no cementation.	1, 2	SC		BS						
	- medium dense, fine to coarse grained sand.	3, 4	SC		RS		21	2	110		
	SILTY SAND - brown, damp, medium dense, fine to coarse grained sand, trace fine gravel, non-plastic fines, no cementation.	5, 6	SM		RS		32	1	108		
		10, 11	SM		RS		45	1	115		
	CLAYEY SILTY SAND - brown, damp, dense, low plastic fines, fine to medium grained sand, no cementation.	15, 16	SC SM		RS		79/11"	1	122		
	CLAYEY SAND - brown, damp, very dense, low plastic fines, no cementation.	20, 21	SC		RS		74/7"	6	117		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-18**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-19

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SILTY SAND - brown, moist, fine to medium grained, low plastic fines, no cementation.	1	SC SM		BS						
	- medium dense.	3	SC SM		RS		39	2	114		
	POORLY GRADED SAND with GRAVEL - white and brown, damp, medium dense, non plastic fines, no cementation, trace silt.	6	SP		RS		22	1	108		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained, some fine gravel, non plastic fines, no cementation.	11	SP SM		RS		45	4	121		
	CLAYEY SAND - brown, damp, medium dense, no cementation, low plastic fines.	16	SC		RS		39	5	120		
		21	SC		RS		53	9	109		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-19**

LOG OF BORING NO. B-20

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, fine to medium grained, low plastic fine, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		25	2	112		
		5, 6	SC		RS		26	2	105		
	POORLY GRADED SAND with SILT - white and brown, damp, medium dense, non-plastic fines, no cementation.	10, 11	SP SM		RS		24	1	109		
	CLAYEY SAND - brown, damp, medium dense, fine to coarse grained, low plastic fines, trace fine gravel, no cementation.	15, 16	SC		RS		32	3	109		
	POORLY GRADED SAND with SILT and GRAVEL - white and brown, damp, fine to coarse grained, non plastic fines.	20, 21	SP SM		RS		54	2	117		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-20**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-21

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, moist, low plastic fines.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		22	1	109		
	POORLY GRADED SAND with GRAVEL - brown and white, damp, medium dense, fine to coarse grained sand, fine gravel, trace silt, no cementation.	5, 6	SP		RS		19	1	103		
		10, 11	SP		RS		32	0	105		
	CLAYEY SILTY SAND - brown, damp, medium dense, fine to medium grained, low plastic fines.	15, 16	SC SM		RS		25	1	101		
		20, 21	SC SM		RS		42	1	113		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-21**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-22

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, moist, fine to coarse grained sand.	1, 2	SM		BS						
	SANDY SILT - brown, damp, very fine sand low to medium plasticity, no cementation, stiff.	3, 4	ML		RS		14	12	83		
	- very stiff.	5, 6, 7, 8, 9	ML		RS		33	8	96		
	POORLY GRADED SAND with SILT and GRAVEL - brown, damp, medium dense, fine to coarse grained sand, fine gravel.	10, 11, 12, 13, 14	SP SM		RS		24	1	101		
		15, 16, 17	SP SM		RS		42	1	117		
	POORLY GRADED SAND with GRAVEL - brown and white, damp, medium dense, fine to coarse grained sand, fine gravel, trace silt.	18, 19, 20, 21	SP		RS		38	1	108		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-22**

LOG OF BORING NO. B-23

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, low plasticity, no cementation.	1, 2	SC		BS						
	- loose, fine to medium grained sand.	3, 4	SC		RS		17	6	108		
	POORLY GRADED SAND with GRAVEL - brown, damp, medium dense, fine to coarse grained sand, fine gravel, trace silt.	5, 6	SP		RS		21	2	110		
		10, 11	SP		RS		33	2	118		
	- dense.	15, 16	SP		RS		63	1	114		
	CLAYEY SILTY SAND - brown, damp, medium dense, low plastic fines, fine medium grained, no cementation.	20, 21	SP		RS		34	1	109		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75		Logged by: JNH
JOB #	60085038	PLATE	**A-23**

LOG OF BORING NO. B-24

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, moist, fine to medium grained sand, low plastic fines, no cementation.	1	SM		BS						
		2									
	- loose.	3	SM		RS		14	4	111		
		4									
	- medium dense.	5	SM		RS		39	2	114		
		6									
		7									
		8									
		9									
		10	SM		RS		26	4	112		
		11									
		12									
		13									
		14									
		15	SM		RS		33	6	119		
		16									
		17									
		18									
		19									
		20	SM		RS		45	3	112		
		21									
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	5-28-09
WL	▽	▼	BORING COMPLETED	5-28-09
WL	▼	▽	RIG CME-75	Logged by: JNH
BORING LOCATION	See Boring Location Plan		JOB # 60085038	PLATE **A-24**

Terracon

LOG OF BORING NO. B-25

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, moist, fine to medium grained sand, low plastic fines, no cementation.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		24	7	104		
	- loose.	5, 6	SM		RS		14	4	102		
	- dense.	10, 11	SM		RS		74	5	107		
	POORLY GRADED SAND with GRAVEL - white and brown, damp, fine to coarse grained sand, fine gravel, trace silt, no cementation.	15, 16	SP		RS		36	1	105		
	CLAYEY SAND - brown, damp, dense, fine to medium grained, low plastic fines, no cementation.	20, 21	SC		RS		63	3	118		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-25**

LOG OF BORING NO. B-26

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, moist, low plastic fines, no cementation.	1, 2	SM		BS						
	- loose.	3, 4	SM		RS		11	8	108		
		5, 6	SM		RS		16	4	109		
	POORLY GRADED SAND with GRAVEL - brown and white, damp, medium dense, fine to coarse grained sand, fine gravel, trace silt, no cementation.	7, 8, 9, 10, 11, 12, 13, 14	SP		RS		27	3	115		
	SILTY SAND - brown, damp, medium dense, no cementation.	15, 16, 17	SM		RS		28	10	100		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained, some fine gravel, no cementation.	18, 19, 20, 21	SP SM		RS		43	3	116		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-26**

LOG OF BORING NO. B-27

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SAND - brown, moist, low plasticity fines, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		18	3	113		
		5, 6	SC		RS		28	1	114		
		7, 8, 9, 10									
		11	SC		RS		29	3	113		
		12, 13, 14									
	POORLY GRADED SAND with GRAVEL - white and brown, damp, trace silt.	15, 16	SP		RS		48	1	108		
		17, 18, 19, 20									
	SANDY SILTY CLAY - brown, damp, very stiff, low plasticity, no cementation.	21	CL		RS		33	10	103		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-27**

LOG OF BORING NO. B-28

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, moist, low plastic fines, no cementation.	1, 2	SM		BS						
	- loose, fine to medium grained sand.	3, 4	SM		RS		17	4	108		
		5, 6	SM		RS		15	5	104		
	- medium dense.	10, 11	SM		RS		21	2	111		
	CLAYEY SAND - brown, damp, medium dense, low plastic fines.	15, 16	SC		RS		35	5	104		
		20, 21	SC		RS		43	4	108		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-28**

LOG OF BORING NO. B-29

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained sand.	1, 2	SM		BS						
	- loose.	3, 4	SM		RS		18	5	105		
	SILT with SAND - brown, damp, stiff, fine to medium grained sand.	5, 6, 7, 8, 9	ML		RS		14	3	106		
	SILTY SAND - red gray, damp, medium dense, fine to coarse grained.	10, 11, 12, 13, 14	SM		RS		26	9	115		
	- brown, very dense, some fine to medium grained sand.	15, 16, 17, 18, 19	SM		RS		50/6"	10	119		
	- medium dense.	20, 21	SM		RS		38	10	98		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-29**

LOG OF BORING NO. B-30

CLIENT **NextLight Renewable Power, LLC**

SITE **West Avenue D and 170th Avenue West Lancaster, CA**

ELEVATION

PROJECT **AV Solar Ranch 1**

DEPTH, ft.	USCS SYMBOL	DESCRIPTION	SAMPLES: TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
1–2	SM	SILTY SAND - brown, damp, fine to medium grained.	BS						
3–4	SM	- loose.	RS		18	4	106		
5–9	ML	SILT with SAND - brown, damp, very stiff, fine to medium grained sand.	RS		24	3	106		
10–14	SP	POORLY GRADED SAND - brown, damp, very dense, fine to coarse grained sand, weakly cemented.	RS		50/6"	3	103		
15–19	SP	- medium dense.	RS		22	2	106		
20–21	CL	LEAN CLAY - dark brown, damp, very hard, low plasticity.	RS		50/6"	8	116		

Total depth of 21 feet.
No groundwater encountered.
Backfilled with soil cuttings.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	A-30

LOG OF BORING NO. B-31

CLIENT **NextLight Renewable Power, LLC**

SITE **West Avenue D and 170th Avenue West Lancaster, CA**

ELEVATION

PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained.	1	SM		BS						
	- very dense, No Recovery.	3			RS		50/6'				
	- medium dense.	6	SM		RS		34	2	121		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained sand, silt lenses.	11	SP SM		RS		33	2			
	- medium dense, fine to coarse grained.	16	SP SM		RS		45	4	106		
	SILTY SAND - brown, damp, very dense, fine to coarse grained, partially cemented.	20	SM		RS		50/6"	5	98		
	Total depth of 21 feet. No groundwater encountered. Backfilled with soil cuttings.	21									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	A-31

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-32

CLIENT **NextLight Renewable Power, LLC**

SITE **West Avenue D and 170th Avenue West Lancaster, CA**

ELEVATION

PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		48	2	116		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained, some fine gravel.	5, 6	SP SM		RS		34	2	114		
	- very dense, fine to medium grained sand, no gravel.	10, 11	SP SM		RS		50/6"	2	108		
	SILT with SAND - brown, damp, hard, fine to medium grained sand.	15	ML		RS		50/6"	3	100		
	CLAYEY SAND - brown, damp, very dense, fine to coarse grained.	20	SC		RS		50/6"	4	90		

Total depth of 20.5 feet.
No groundwater encountered.
Backfilled with soil cuttings.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	A-32

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-33

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - red brown, damp, fine to medium grained sand.	1, 2	SM		BS						
	- loose, some coarse gravel.	3, 4	SM		RS		10	3	103		
	WELL GRADED SAND - light brown, damp, medium dense, fine to coarse grained sand, some fine gravel.	5, 6, 7, 8, 9	SW		RS		18	1			
	SILTY SAND - red brown, damp, very dense, fine to medium grained sand, weakly to moderately cemented.	10, 11, 12, 13, 14	SM		RS		50/6"	4	110		
	- brown, medium dense.	15, 16, 17, 18, 19	SM		RS		41	8	120		
	- some coarse grained sand and silt.	20, 21	SM		RS		36	6	120		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-28-09		
BORING COMPLETED	5-28-09		
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-33**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-34

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		28	3	112		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to medium grained.	5, 6, 7, 8, 9	SP SM		RS		30	2	107		
	SILTY SAND - brown, damp, medium dense, fine to coarse grained sand.	10, 11, 12, 13, 14	SM		RS		32	3	116		
	POORLY GRADED SAND with SILT - brown, damp, medium dense, fine to coarse grained.	15, 16, 17, 18, 19	SP SM		RS		51	4	111		
	- very dense.	20, 21	SP SM		RS		50/6"	2	107		
	Total depth of 21 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-34**

LOG OF BORING NO. B-35

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained sand.	1	SM		BS						
		2									
	- loose.	3	SM		RS		11	4	105		
		4									
		5	SM								
		6			RS		16	7	122		
		7									
		8									
		9									
	POORLY GRADED SAND with SILT - red gray, damp, medium dense, fine to coarse grained.	10	SP SM								
		11			RS		27	1	108		
		12									
		13									
		14									
	WELL GRADED SAND - brown, damp, medium dense, fine to coarse grained sand.	15	SW								
		16			RS		28	7	110		
		17									
		18									
		19									
		20	SW								
		21			RS		43	8	125		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	5-28-09
WL	▼	▼	BORING COMPLETED	5-28-09
BORING LOCATION	See Boring Location Plan		RIG CME-75	Logged by: MAR
			JOB # 60085038	PLATE **A-35**

Terracon

LOG OF BORING NO. B-36

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- medium dense.	3, 4	SM		RS		28	2	117		
	POORLY GRADED SAND with SILT - red gray, damp, medium dense, slightly cemented.	5, 6, 7, 8, 9	SP SM		RS		22	7	114		
	POORLY GRADED SAND - red gray, damp, medium dense, fine to medium grained.	10, 11, 12, 13, 14	SP		RS		35	6	121		
	- very dense, some silt.	15, 16, 17, 18, 19	SP		RS		50/6"	9	118		
		20, 21	SP		RS		75/9"	6	132		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-36**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-37

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- loose.	3, 4	SM		RS		17	5	113		
		5, 6	SM		RS		14	2	105		
	- medium dense.	10, 11	SM		RS		33	2	112		
	SILT with SAND - dark brown, damp, very stiff, slightly plastic.	15, 16	ML		RS		20	14	117		
	- hard, some fine to coarse grained sand.	20, 21	ML		RS		37	7	127		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-37**

LOG OF BORING NO. B-38

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained sand.	1	SM		BS						
	No Recovery.	3			RS		35				
	- yellow brown, loose.	5	SM		RS		14	2	102		
	- red gray, some coarse grained sand.	10	SM		RS		16	9	111		
	CLAYEY SAND - red gray, damp, medium dense, fine to medium grained.	15	SC		RS		58	9	129		
	WELL GRADED SAND - red gray, damp, medium dense, fine to coarse grained.	20	SM		RS		33	4	115		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-38**

LOG OF BORING NO. B-39

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.	1, 2	SM		BS						
	- dense.	3, 4	SM		RS		85	2	119		
	POORLY GRADED SAND - brown, damp, medium dense, fine to medium grained, some coarse grained.	5, 6	SP		RS		45				
	- grades coarser.	7, 8, 9									
	SILTY SAND - yellow brown, damp, medium dense, fine to medium grained.	10, 11	SM		RS		45	3	117		
	No Recovery.	12, 13, 14, 15, 16			RS		40	3	103		
	- brown, damp, medium dense, fine to coarse grained sand.	17, 18, 19, 20, 21	SM		RS		22	7	119		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-39**

LOG OF BORING NO. B-40

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - yellow brown, damp, fine to medium grained.	1, 2	SM		BS						
	- medium dense, slightly cemented.	3, 4	SM		RS		48	2	114		
	- moderately cemented.	5, 6	SM		RS		42	4	112		
	POORLY GRADED SAND - brown, damp, medium dense, fine to coarse grained.	10, 11	SP		RS		40	2	104		
	CLAYEY SAND - dark brown, damp, medium dense, fine to coarse grained sand, low plasticity.	15, 16	SC		RS		28	10	125		
	SILT - dark brown, damp, stiff, low plasticity.	20, 21	ML		RS		15	18	106		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-29-09		
BORING COMPLETED	5-29-09		
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-40**

LOG OF BORING NO. B-41

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - yellow brown, damp, fine to medium grained sand.	1	SM		BS						
		2									
	- very dense, No Recovery.	3			RS		50/6"				
		4									
	- medium dense, No Recovery.	5									
		6			RS		21				
		7									
		8									
		9									
	- very dense.	10	SM		RS		50/6"	1	119		
		11									
		12									
		13									
		14									
	- dark brown, damp, medium dense, low plasticity.	15	SM								
		16			RS		32	12	120		
		17									
		18									
		19									
	- increasing coarse grained sand.	20	SM								
		21			RS		37	8	128		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-41**

LOG OF BORING NO. B-42

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - yellow brown, damp, fine to medium grained sand, non plastic fines.	1	SM		BS						
		2									
	- medium dense, No Recovery.	3			RS		23				
		4									
	- very dense, fine to coarse grained sand.	5	SM		RS		50/6"	1	115		
		6									
		7									
		8									
		9									
	- damp, loose.	10	SM								
		11			RS		10	5	106		
		12									
		13									
		14									
	CLAYEY SAND - brown, damp, very dense, fine to medium grained sand, trace coarse grained sand.	15	SC		RS		50/6"	7	117		
		16									
		17									
		18									
		19									
	POORLY GRADED SAND - dark brown, damp, loose, fine to coarse grained sand.	20	SP								
		21			RS		13	9	117		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	5-29-09
WL	▽	▼	BORING COMPLETED	5-29-09
WL	▼	▼	RIG CME-75	Logged by: MAR
BORING LOCATION	See Boring Location Plan		JOB # 60085038	PLATE **A-42**

Terracon

LOG OF BORING NO. B-43

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - brown, moist, fine to medium grained, trace coarse grained sand and fine gravel, low plasticity fines.	1	SM		BS						
		2									
	- medium dense.	3	SM		RS		22	4	109		
		4									
		5	SM								
		6			RS		31	9	122		
		7									
		8									
		9									
		10	SM								
		11			RS		51	13	123		
		12									
		13									
		14									
		15	SM								
		16			RS		35	10	124		
		17									
	CLAYEY SILTY SAND - brown, damp, medium dense, fine to medium grained, low plastic fines.	18									
		19									
		20	SC SM								
		21			RS		45	4	112		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-43**

LOG OF BORING NO. B-44

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, low to moderately plastic fines, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		41	4	121		
		5, 6	SC		RS		24	7	114		
	WELL GRADED SAND with CLAY - brown, damp, medium dense, non-plastic fines, no cementation, fine to coarse grained sand, trace fine gravel.	10, 11	SW SC		RS		37	3	117		
		15, 16	SW SC		RS		28	5	114		
	POORLY GRADED SAND - gray brown, damp, medium dense, fine to coarse grained, some fine gravel, trace silt.	20, 21	SP		RS		33	3	120		

Total depth of 21.5 feet.
No groundwater encountered.
Backfilled with soil cuttings.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-29-09		
BORING COMPLETED	5-29-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-44**

LOG OF BORING NO. B-45

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, moist, fine to medium grained sand, low plastic fines, no cementation.	1	SM		BS						
		2									
	- medium dense.	3	SM		RS		29	3	119		
		4									
		5	SM								
		6			RS		27	3	108		
		7									
		8									
		9									
	CLAYEY SAND - brown, damp, medium dense, fine to coarse grained, trace fine gravel, low plasticity fines.	10	SC								
		11			RS		29	2	123		
		12									
		13									
		14									
		15	SC								
		16			RS		43	2	117		
		17									
	- moderately plastic.	18									
		19									
		20	SC								
		21			RS		31	6	130		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-45**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-46

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SILTY SAND - brown, moist, low plastic fines, no cementation.	1	SC SM		BS						
		2									
	- medium dense, fine to medium grained sand.	3	SC SM		RS		29	1	116		
	CLAYEY SAND - brown, damp, medium dense, low plastic fines, no cementation.	4									
		5	SC								
		6			RS		30	9	125		
		7									
		8									
		9									
		10	SC								
		11			RS		23	5	123		
		12									
		13									
		14									
	WELL GRADED SAND with CLAY - gray brown, damp, medium dense, fine to coarse grained sand, fine gravel, trace clay.	15	SW SC								
		16			RS		23	3	115		
		17									
	CLAYEY SAND - brown, damp, medium dense, low plastic fines, no cementation.	18									
		19									
		20	SC								
		21			RS		33	3	110		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-46**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. B-47

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SAND - brown, moist, low to moderately plastic fines, fine to coarse grained sand, trace fine gravel, no cementation.	1	SC		BS						
		2									
	- medium dense.	3	SC		RS		22	3	115		
		4									
		5	SC		RS		24	7	117		
		6									
		7									
		8									
		9									
		10	SC		RS		28	7	121		
		11									
		12									
		13									
		14									
		15	SC		RS		25	12	120		
		16									
		17									
		18									
		19									
		20	SC		RS		41				
		21									
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-47**

LOG OF BORING NO. B-48

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	CLAYEY SAND - brown , moist, low plastic fines, trace gravel, no cementation.	1, 2	SC		BS						
	- medium dense.	3, 4	SC		RS		19	3	121		
	- medium dense.	5, 6	SC		RS		21	4	114		
	- dense.	10, 11	SC		RS		61	5	120		
	- medium dense.	15, 16	SC		RS		48	12	124		
	SAND with CLAY - brown, moist, low plastic fines, trace gravel, no cementation.	18, 19									
	- medium dense.	20, 21	SP SC		RS		31	3	120		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-29-09		
BORING COMPLETED	5-29-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-48**

LOG OF BORING NO. B-49

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	CLAYEY SAND - brown, moist, fine to medium grained sand, low plastic fines, no cementation.	1, 2	SC		BS						
	- loose.	3, 4	SC		RS		12	3	110		
	- some fine gravel.	5, 6	SC		RS		16	4	113		
	WELL GRAINED SAND with CLAY - brown, damp, loose, fine to medium grained, trace fine gravel, low plastic fines, no cementation.	10, 11	SW SC		RS		14	3	110		
	- medium dense, no gravel.	15, 16	SW SC		RS		21	13	121		
	- trace fine gravel.	20, 21	SW SC		RS		40	2	118		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	5-29-09		
BORING COMPLETED	5-29-09		
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-49**

LOG OF BORING NO. B-50

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SILTY SAND - yellow brown, damp, fine to medium grained, slightly cemented.	1	SM		BS						
		2									
	- medium dense.	3	SM		RS		38	3	114		
		4									
		5	SM								
		6			RS		30	3			
		7									
		8									
		9									
		10	SM								
		11			RS		22	3	107		
		12									
		13									
		14									
	POORLY GRADED SAND - gray, damp, medium dense, fine to coarse grained, some silt.	15	SP								
		16			RS		33	1	111		
		17									
		18									
		19									
	SILTY SAND - red gray, damp, medium dense, fine to medium grained.	20	SM								
		21			RS		26	4	109		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	5-29-09
WL	▽	▼	BORING COMPLETED	5-29-09
WL	▼	▽	RIG CME-75	Logged by: MAR
BORING LOCATION	See Boring Location Plan		JOB # 60085038	PLATE **A-50**

Terracon

LOG OF BORING NO. B-51

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	TYPE	RECOVERY, in.	PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, tsf	LABORATORY TESTS
	SANDY SILT - brown, moist, low plastic fines, no cementation.	1	ML		BS						
		2									
	- very stiff, fine to medium grained sand.	3	ML		RS		25	8	104		
		4									
	POORLY GRADED SAND with GRAVEL - gray brown, damp, medium dense, trace silt, fine to coarse grained sand, fine gravel.	5	SP								
		6			RS		28	3	112		
		7									
		8									
		9									
		10	SP								
		11			RS		24	1	105		
		12									
		13									
		14									
		15	SP								
		16			RS		26	1	98		
		17									
	CLAYEY SAND - brown, damp, medium dense, low plastic fines.	18									
		19									
		20	SC								
		21			RS		39	7	123		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: JNH	
JOB #	60085038	PLATE	**A-51**

LOG OF BORING NO. B-52

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SANDY SILT - brown, damp, fine grained sand.	1, 2	ML		BS						
	SILTY SAND - brown, medium dense, slightly cemented.	3, 4	SM		RS		43	1	102		
	- fine to coarse grained sand, trace fine gravel.	5, 6	SM		RS		27	2	113		
		7, 8, 9									
		10, 11	SM		RS		26	2	106		
		12, 13, 14									
		15, 16	SM		RS		37	4	106		
		17, 18, 19									
	- dense.	20, 21	SM		RS		63	6	107		
	Total depth of 21.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-29-09
BORING COMPLETED			5-29-09
RIG	CME-75	Logged by: MAR	
JOB #	60085038	PLATE	**A-52**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF BORING NO. P-1

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.		SM								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
		9									
		10									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75		Logged by: CP
JOB #	60085038	PLATE	**A-53**

LOG OF BORING NO. P-2

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.		SM								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
		9									
		10									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED			5-28-09
BORING COMPLETED			5-28-09
RIG	CME-75		Logged by: CP
JOB #	60085038	PLATE	**A-54**

LOG OF TEST PIT NO. TP-01

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained, some fine to coarse gravel.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
	- damp, decreasing gravel.	8									
		9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-55**

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-02

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, some fine gravel.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
	- increasing gravel.	9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-1-09
WL	▼	▼	BORING COMPLETED	6-1-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MAR
			JOB # 60085038	PLATE **A-56**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-03

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.	1, 2, 3, 4	SM								
	POORLY GRADED SAND - brown, damp, some silt, fine grained sand, trace fine gravel.	5, 6, 7, 8, 9, 10	SP								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09		
BORING COMPLETED	6-2-09		
RIG		Logged by: MS	
JOB #	60085038	PLATE	A-57

LOG OF TEST PIT NO. TP-04

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	WELL GRADED SAND - brown, damp, very loose, coarse grained sand to fine gravel, some coarse gravel.		SW								
	- sides caving in.	1, 2, 3, 4, 5, 6, 7, 8									
	Total depth of 8 feet due to caving. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-58**

LOG OF TEST PIT NO. TP-05

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, dense.		SM								
	POORLY GRADED SAND - brown, damp, fine to coarse grained.	1	SP								
	- fine to coarse grained sand, some fine gravel.	2, 3, 4, 5, 6, 7									
	SILTY SAND - brown, damp, fine to medium grained sand, some coarse sand.	8, 9	SM								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.	10									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-59**

LOG OF TEST PIT NO. TP-06

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained sand, rootlets.		SM								
		1									
		2									
		3									
	- some fine gravel, no rootlets.	4									
		5									
		6									
		7									
		8									
	POORLY GRADED SAND - brown, damp, medium to coarse grained sand, fine gravel, trace coarse gravel.	9	SP								
	Total depth of 10 feet.	10									
	No groundwater encountered.										
	Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-1-09
WL	▼	▽	BORING COMPLETED	6-1-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MAR
			JOB # 60085038	PLATE **A-60**

Terracon

LOG OF TEST PIT NO. TP-07

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to coarse grained.		SM								
	POORLY GRADED SAND with SILT - brown, damp, coarse grained sand, fine gravel, some coarse gravel.	1	SP SM								
		2									
		3									
		4									
		5									
		6									
		7									
		8									
		9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-1-09
WL	▼	▼	BORING COMPLETED	6-1-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MAR
			JOB # 60085038	PLATE **A-61**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-08

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - yellow brown, damp, fine to coarse grained.		SP								
	SILTY SAND - brown, damp, fine to medium grained sand.	1	SM								
		2									
		3									
		4									
		5									
		6									
	- fine to coarse grained sand, sidewalls collapse slightly.	7									
		8									
		9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-62**

LOG OF TEST PIT NO. TP-09

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, some fine grained sand.		SM								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
	WELL GRADED SAND - brown, damp, fine to coarse grained sand.		SW								
		9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-1-09
WL	▼	▼	BORING COMPLETED	6-1-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MAR
			JOB # 60085038	PLATE **A-63**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-10

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine to medium grained sand, cemented fragments roughly fist-sized.	1, 2, 3, 4, 5, 6, 7	SM								
	WELL GRADED SAND - red gray, damp, fine to coarse grained sand, some fine gravel, moderately cemented.	8, 9, 10	SW								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-64**

LOG OF TEST PIT NO. TP-11

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand.		SP								
		1									
		2									
		3									
	- sidewalls caving, loose.	4									
	- medium to coarse grained sand, fine gravel.	5									
		6									
	Total depth of 6 feet due to caving. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-65**

LOG OF TEST PIT NO. TP-12

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
	- grades finer.	7									
		8									
		9									
	SILTY SAND - brown, damp, fine to coarse grained sand.		SM								
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-66**

LOG OF TEST PIT NO. TP-13

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.		SM								
		1									
		2									
		3									
		4									
	POORLY GRADED SAND - brown, damp, fine to coarse grained.		SP								
		5									
		6									
		7									
		8									
	- yellow brown, fine gravel.	9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-2-09
WL	▼	▽	BORING COMPLETED	6-2-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MS
			JOB # 60085038	PLATE **A-67**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-14

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, fine gravel.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
	- sidewalls cave slightly.	7									
		8									
	- decreasing fine gravel, increasing coarse grained sand.	9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▽
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-1-09		
BORING COMPLETED	6-1-09		
RIG		Logged by: MAR	
JOB #	60085038	PLATE	**A-68**

LOG OF TEST PIT NO. TP-15

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, trace fine gravel.	1 2 3 4 5 6 7 8 9 10	SP								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09		
BORING COMPLETED	6-2-09		
RIG		Logged by: MS	
JOB #	60085038	PLATE	**A-69**

LOG OF TEST PIT NO. TP-16

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, trace fine gravel.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
	- damp.	9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-1-09
WL	▼	▼	BORING COMPLETED	6-1-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MAR
			JOB # 60085038	PLATE **A-70**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-17

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand.		SP								
		1									
		2									
		3									
		4									
		5									
		6									
		7									
		8									
	- grades coarser.	9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	6-1-09
WL	▽	▼	BORING COMPLETED	6-1-09
WL	▼	▼	RIG	Logged by: MAR
BORING LOCATION	See Boring Location Plan		JOB # 60085038	PLATE **A-71**

Terracon

LOG OF TEST PIT NO. TP-18

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand, trace fine gravel.		SM								
		1									
		2									
		3									
	- decreasing fines.	4									
		5									
		6									
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, some fine gravel.	7	SP								
		8									
		9									
		10									
	Total depth of 10.5 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-2-09
WL	▼	▼	BORING COMPLETED	6-2-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MS
			JOB # 60085038	PLATE **A-72**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-19

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand, trace coarse gravel.	1, 2, 3, 4	SM								
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, trace fine gravel.	5, 6, 7, 8, 9, 10	SP								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09		
BORING COMPLETED	6-2-09		
RIG		Logged by: MS	
JOB #	60085038	PLATE	**A-73**

LOG OF TEST PIT NO. TP-20

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.		SM								
		1									
	CLAYEY SAND - brown, damp, fine to coarse grained sand, trace fine gravel.	2	SC								
		3									
	- decreasing fines, increasing sands.	4									
	SILTY SAND - brown, damp, fine grained sand.	5	SM								
		6									
		7									
		8									
	CLAYEY SAND - brown, damp, fine to coarse grained sand, trace fine gravel.	9	SC								
		10									
	Total depth of 10.5 feet. No groundwater encountered. Backfilled with soil cuttings. Difficult excavating from 2 to 4 feet bgs.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09
BORING COMPLETED	6-2-09
RIG	Logged by: MS
JOB # 60085038	PLATE **A-74**

LOG OF TEST PIT NO. TP-21

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand, some fine gravel.		SM								
	- large cobble-sized granitic rocks to approximately 5 feet bgs.	1, 2, 3, 4									
	POORLY GRADED SAND - brown, damp, fine to coarse grained sand, some fine gravel.	5, 6	SP								
	SILTY SAND - brown, damp, fine grained sand, fine gravel.	7, 8, 9	SM								
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.	10									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09
BORING COMPLETED	6-2-09
RIG	Logged by: MS
JOB # 60085038	PLATE **A-75**

LOG OF TEST PIT NO. TP-22

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.		SM								
		1									
		2									
		3									
		4									
	- trace fine gravel.	5									
		6									
		7									
		8									
		9									
		10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-2-09
WL	▼	▽	BORING COMPLETED	6-2-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MS
			JOB # 60085038	PLATE **A-76**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

LOG OF TEST PIT NO. TP-23

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.	1, 2	SM								
	CLAYEY SAND - brown, damp, fine to coarse grained sand.	3, 4	SC								
	SILTY SAND - brown, damp, fine to coarse rained sand.	5, 6	SM								
	- decreasing fines, increasing sands.	7, 8, 9									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings. Difficult excavating from 2.5 to 4.5 feet bgs.	10									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
BORING LOCATION	See Boring Location Plan	

Terracon

BORING STARTED	6-2-09
BORING COMPLETED	6-2-09
RIG	Logged by: MS
JOB # 60085038	PLATE **A-77**

LOG OF TEST PIT NO. TP-24

CLIENT	SITE
NextLight Renewable Power, LLC	**West Avenue D and 170th Avenue West Lancaster, CA**
ELEVATION	PROJECT **AV Solar Ranch 1**

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: GRAPHICS	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: PENETRATION TEST RESULTS BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, tsf	TESTS: LABORATORY TESTS
	SILTY SAND - brown, damp, fine grained sand.	1, 2, 3	SM								
	CLAYEY SAND - brown, damp, fine to coarse grained sand.	4	SC								
	SILTY SAND - brown, damp, fine to coarse grained sand.	5	SM								
	- fine grained sand.	6, 7, 8, 9, 10									
	Total depth of 10 feet. No groundwater encountered. Backfilled with soil cuttings. Difficult excavating from 3.5 to 5 feet bgs.										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.
*Tested by pocket penetrometer.

WATER LEVEL OBSERVATIONS, ft				
WL	▽	▼	BORING STARTED	6-2-09
WL	▼	▼	BORING COMPLETED	6-2-09
BORING LOCATION	See Boring Location Plan		RIG	Logged by: MS
			JOB # 60085038	PLATE **A-78**

Terracon

BOREHOLE SAMPLE BOTTOM 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Soil Classification	
					Group Symbol	Group Name[B]
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$[E]		GW	Well-graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3$[E]		GP	Poorly graded gravel[F]
		Gravels with Fines More than 12% fines[C]	Fines classify as ML or MH		GM	Silty gravel[F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$[E]		SW	Well-graded sand[I]
			$Cu < 6$ and/or $1 > Cc > 3$[E]		SP	Poorly graded sand[I]
		Sands with Fines More than 12% fines[D]	Fines classify as ML or MH		SM	Silty sand[G,H,I]
			Fines Classify as CL or CH		SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	PI > 7 and plots on or above "A" line[J]		CL	Lean clay[K,L,M]
			PI < 4 or plots below "A" line[J]		ML	Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OL	Organic clay[K,L,M,N]
			Liquid limit - not dried			Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line		CH	Fat clay[K,L,M]
			PI lots below "A" line		MH	Elastic Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OH	Organic clay[K,L,M,P]
			Liquid limit - not dried			Organic silt[K,L,M,Q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-in. (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

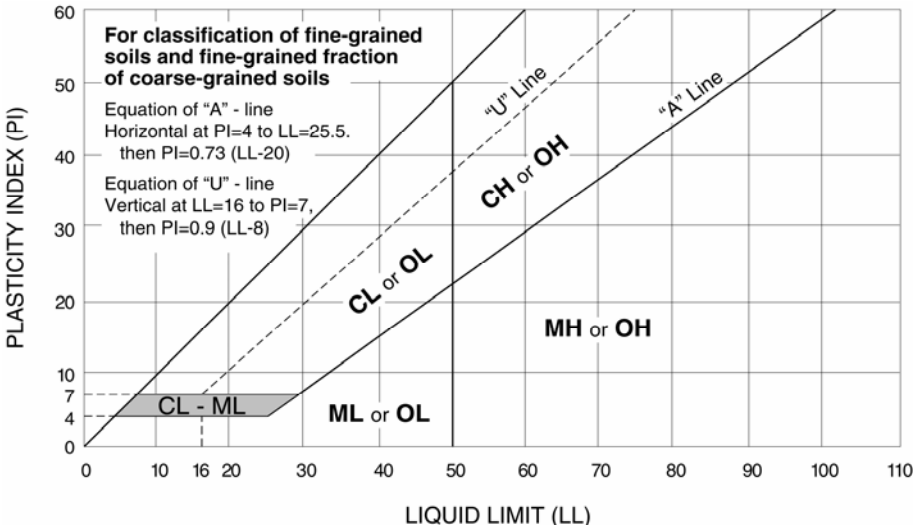
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



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GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1-3/8" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
MC:	Modified California Sampler – 2.5" O.D., unless otherwise noted	DC:	Dynamic Cone
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
BS:	Bulk Sample or Auger Sample	GS:	Grab Sample
Hammer Blows:	Number of Blows to advance the 9" O.D. steel casing one foot with the diesel hammer at "full" throttle.	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value". For 3" O.D. ring samplers (RS) the penetration value is reported as the number of blows required to advance the sampler 12 inches using a 140-pound hammer falling 30 inches, reported as "blows per foot," and is not considered equivalent to the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling
WCI:	Wet Cave in	WD:	While Drilling
DCI:	Dry Cave in	BCR:	Before Casing Removal
AB:	After Boring	ACR:	After Casing Removal

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined and/or described on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-value (SS) Blows/Ft.	Consistency
< 500	<2	Very Soft
500 – 1,000	2-3	Soft
1,001 – 2,000	4-6	Medium Stiff
2,001 – 4,000	7-12	Stiff
4,001 – 8,000	13-26	Very Stiff
8,000+	26+	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Standard Penetration or N-value (SS) Blows/Ft.	Ring Sampler (RS) Blows/Ft.	Relative Density
0 – 3	0-6	Very Loose
4 – 9	7-17	Loose
10 – 29	18-55	Medium Dense
30 – 49	56-95	Dense
50+	96+	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 – 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 – 12
Modifiers	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0-3
Low	4-15
Medium	16-25
High	25+

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APPENDIX C

LABORATORY TESTING

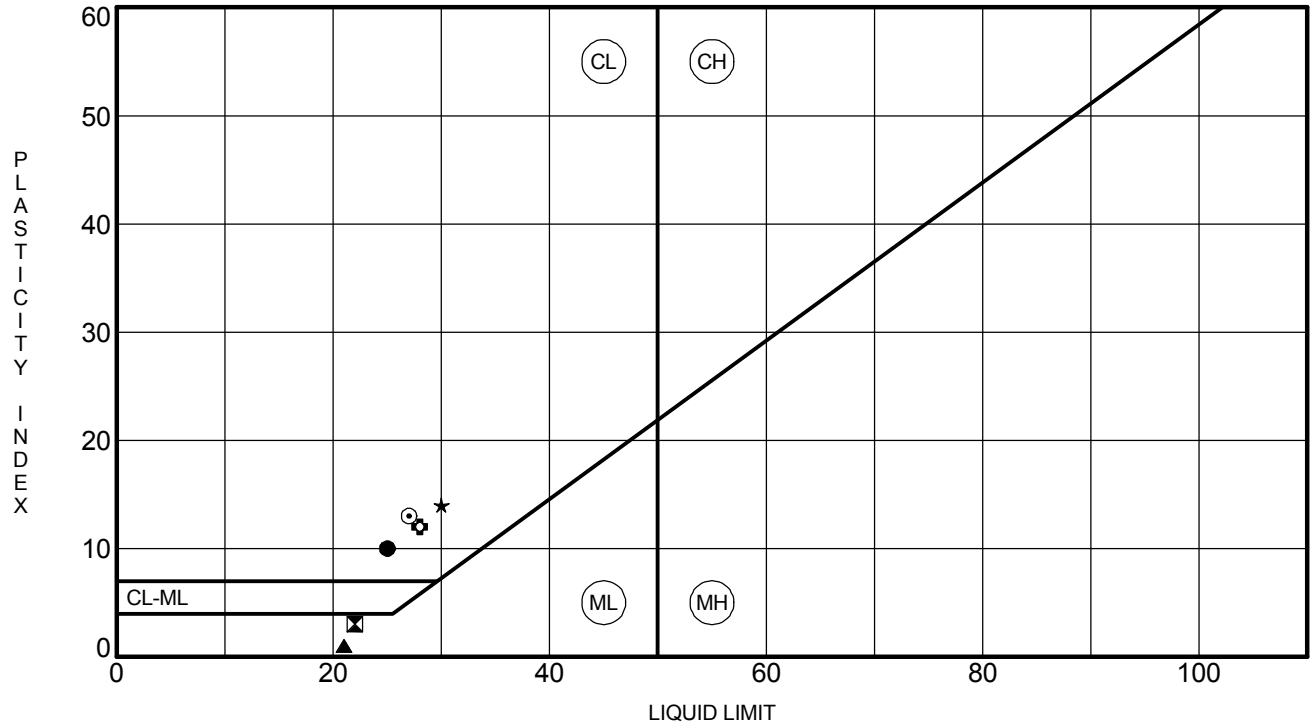
Laboratory Testing

Samples retrieved during the field exploration were taken to the laboratory for further observation by the project geotechnical engineer and were classified in accordance with the Unified Soil Classification System (USCS) described in Appendix B. At that time, the field descriptions were confirmed or modified as necessary and an applicable laboratory testing program was formulated to determine engineering properties of the subsurface materials.

Laboratory tests were conducted on selected soil samples and the test results are presented in this appendix. The laboratory test results were used for the geotechnical engineering analyses, and the development of foundation and earthwork recommendations. Laboratory tests were performed in general accordance with the applicable ASTM, local or other accepted standards.

Selected soil samples obtained from the site were tested for the following engineering properties:

- Sieve Analysis
- Atterberg Limits
- Direct Shear
- Expansion Index
- pH
- Soluble Sulfates
- In-situ Water Content
- In-situ Dry Density
- Moisture-Density Relationship
- Consolidation
- Minimum Resistivity
- Soluble Chlorides



	Specimen Identification		LL	PL	PI	%Fines	Classification
●	**B-04**	**0.0ft**	**25**	**15**	**10**		**CLAYEY SAND (SC)**
⊠	**B-25**	**2.5ft**	**22**	**19**	**3**		**SILTY SAND (SM)**
▲	**B-30**	**5.0ft**	**21**	**20**	**1**		**SILT with SAND (ML)**
★	**B-37**	**15.0ft**	**30**	**16**	**14**		**SILT with SAND (ML)**
⊙	**B-40**	**15.0ft**	**27**	**14**	**13**		**CLAYEY SAND (SC)**
✿	**B-42**	**15.0ft**	**28**	**16**	**12**		**CLAYEY SAND (SC)**

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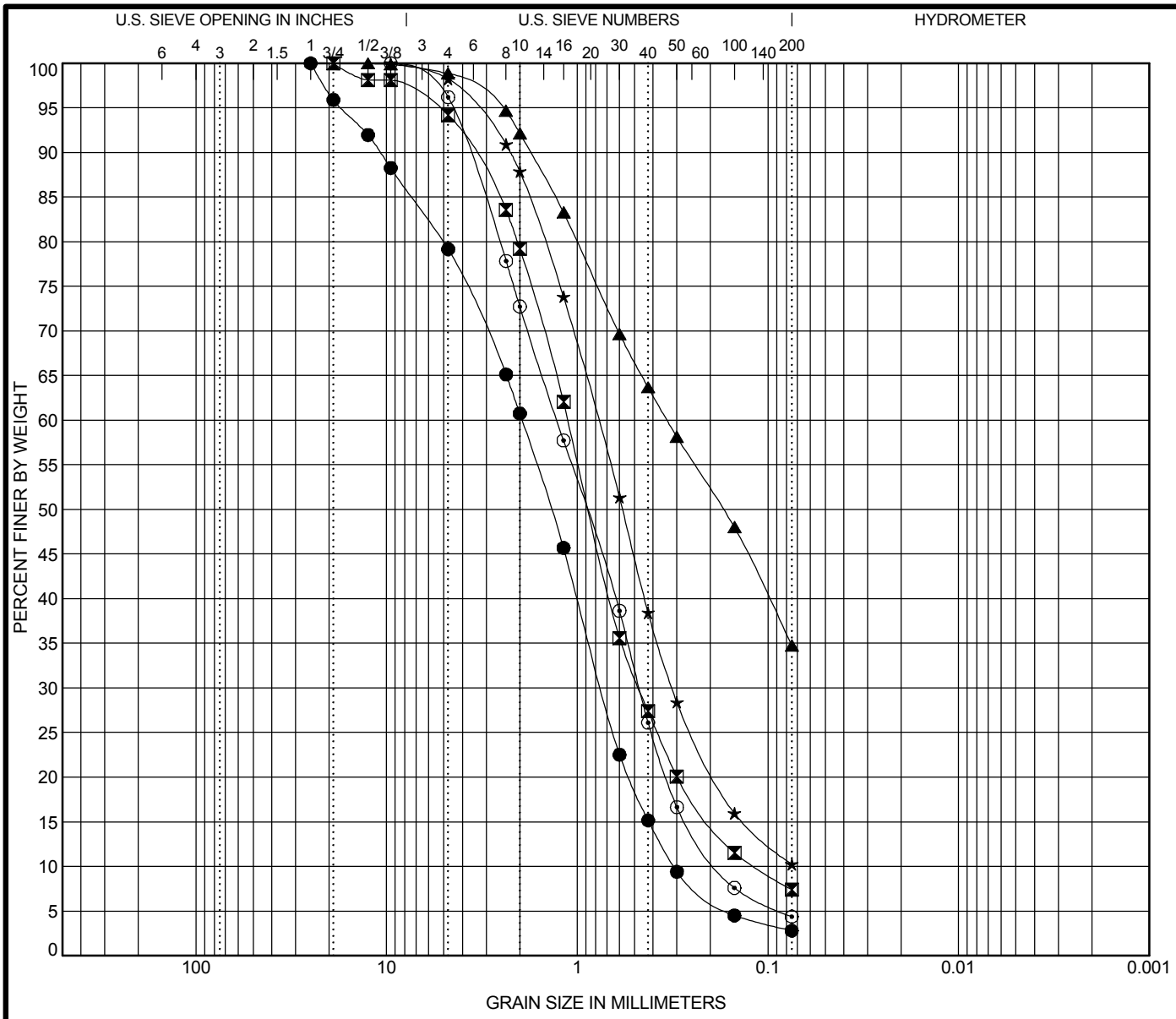
ATTERBERG LIMITS RESULTS

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	B-02	10.0ft	**POORLY GRADED SAND with GRAVEL (SP)**				**0.92**	**6.26**
⊠	B-05	10.0ft	**WELL-GRADED SAND with SILT (SW-SM)**				**1.73**	**9.65**
▲	B-06	2.5ft	**CLAYEY SAND (SC)**					
★	B-07	15.0ft	**WELL-GRADED SAND with SILT (SW-SM)**				**1.78**	**10.68**
⊙	B-10	15.0ft	**POORLY GRADED SAND (SP)**				**0.97**	**7.08**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-02	10.0ft	**25**	**1.948**	**0.747**	**0.311**	**20.8**	**76.4**	**2.8**	
⊠	B-05	10.0ft	**19**	**1.12**	**0.474**	**0.116**	**5.8**	**86.8**	**7.4**	
▲	B-06	2.5ft	**12.5**	**0.337**			**1.1**	**64.1**	**34.7**	
★	B-07	15.0ft	**9.5**	**0.778**	**0.317**		**1.8**	**88.0**	**10.2**	
⊙	B-10	15.0ft	**9.5**	**1.278**	**0.473**	**0.18**	**3.8**	**91.9**	**4.4**	

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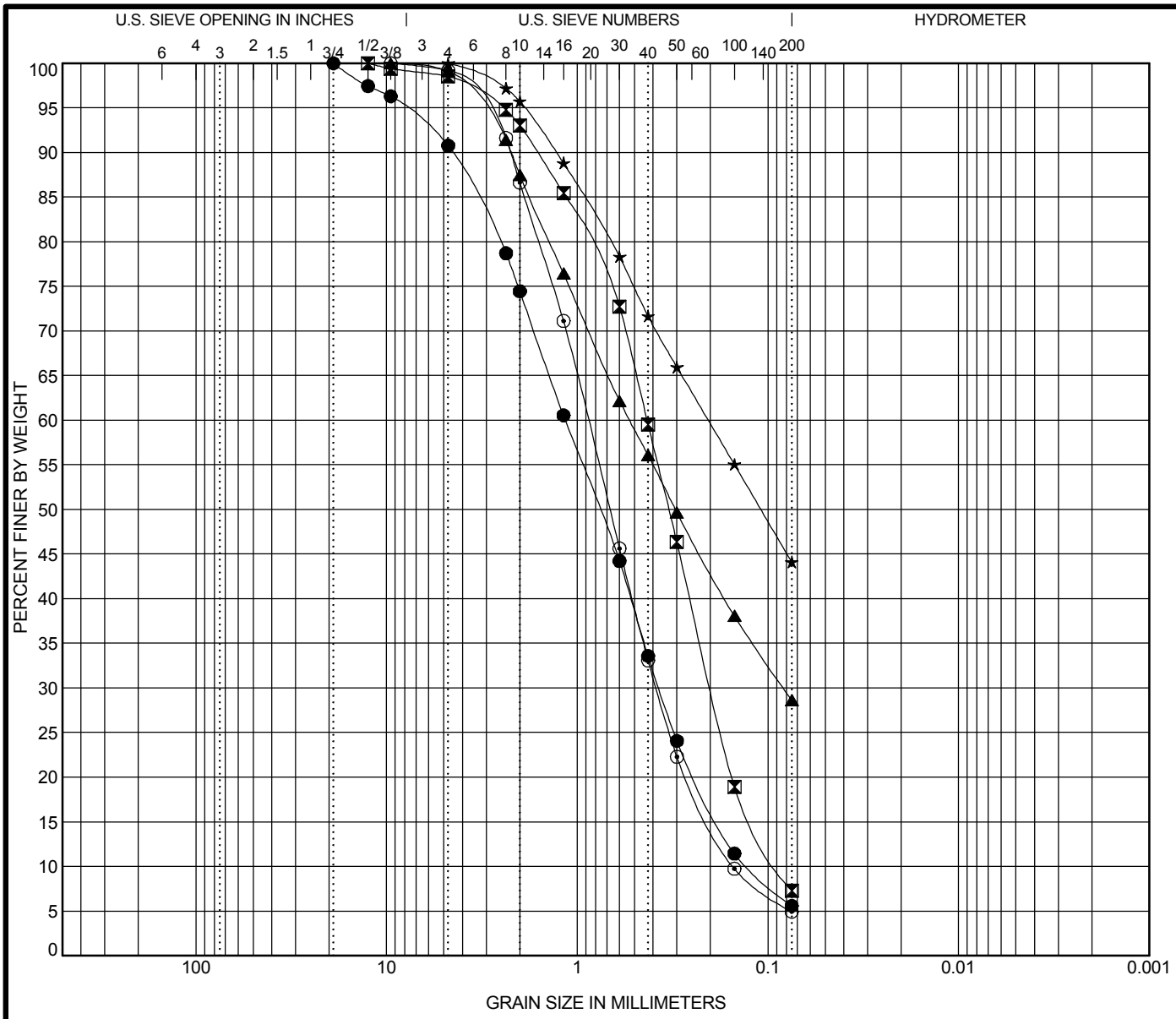
GRAIN SIZE DISTRIBUTION

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-13**	**15.0ft**	**POORLY GRADED SAND with SILT (SP-SM)**				**0.95**	**9.11**
⊠	**B-31**	**10.0ft**	**POORLY GRADED SAND with SILT (SP-SM)**				**1.04**	**4.88**
▲	**B-35**	**5.0ft**	**SILTY SAND (SM)**					
★	**B-39**	**20.0ft**	**SILTY SAND (SM)**					
⊙	**B-40**	**10.0ft**	**POORLY GRADED SAND (SP)**				**1.11**	**5.77**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-13**	**15.0ft**	**19**	**1.154**	**0.373**	**0.127**	**9.2**	**85.2**	**5.6**	
⊠	**B-31**	**10.0ft**	**12.5**	**0.43**	**0.199**	**0.088**	**1.5**	**91.2**	**7.3**	
▲	**B-35**	**5.0ft**	**9.5**	**0.531**	**0.083**		**0.9**	**70.5**	**28.6**	
★	**B-39**	**20.0ft**	**4.75**	**0.205**			**0.0**	**55.9**	**44.1**	
⊙	**B-40**	**10.0ft**	**9.5**	**0.879**	**0.385**	**0.152**	**0.8**	**94.3**	**4.9**	

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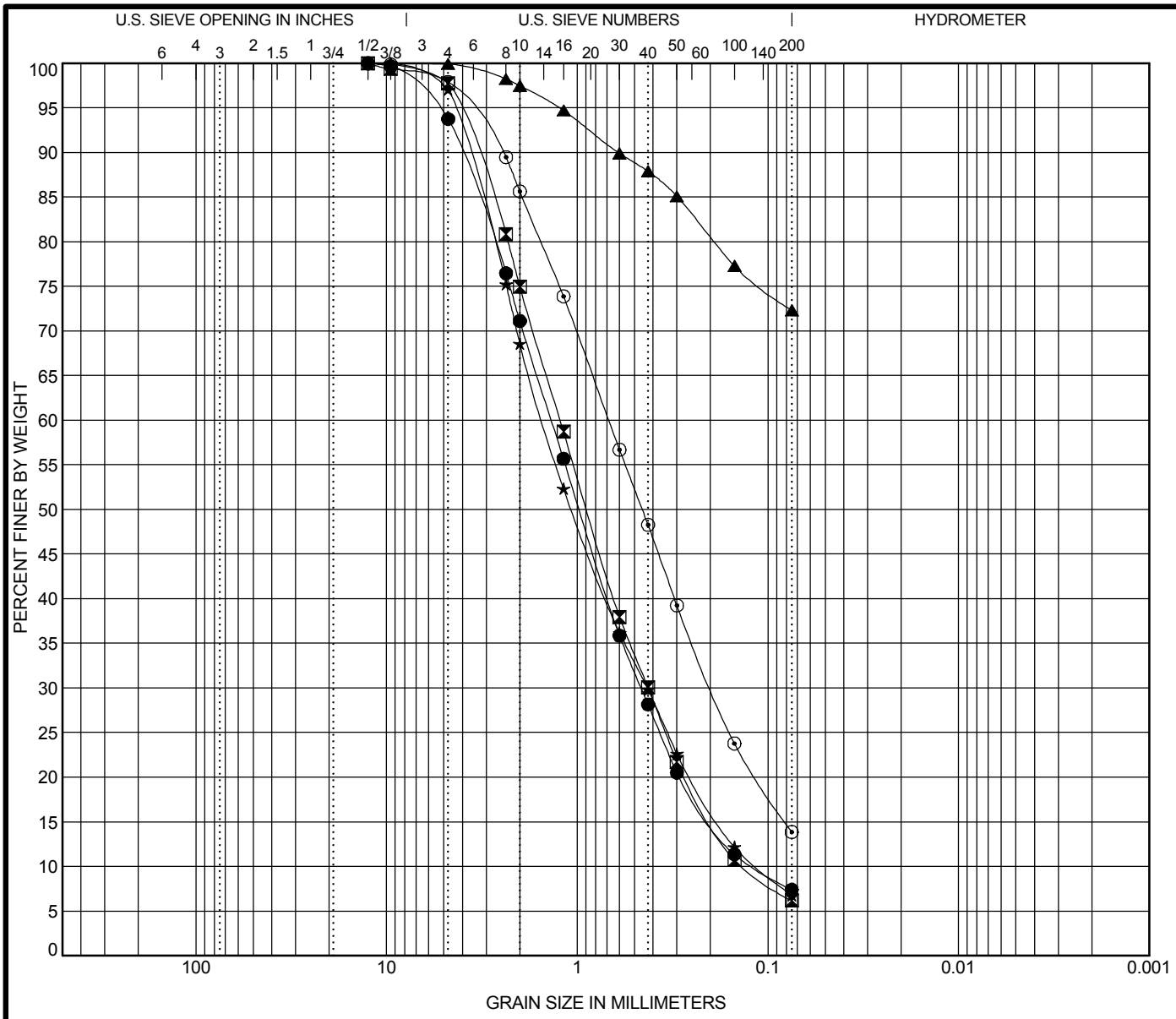
GRAIN SIZE DISTRIBUTION

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	B-44	10.0ft	**WELL-GRADED SAND with CLAY (SW-SC)**				**1.32**	**11.55**
⊠	B-46	15.0ft	**WELL-GRADED SAND with CLAY (SW-SC)**				**1.09**	**9.15**
▲	B-48	15.0ft	**SANDY CLAY (CL)**					
★	B-49	10.0ft	**WELL-GRADED SAND with CLAY (SW-SC)**				**1.07**	**13.36**
⊙	B-52	5.0ft	**SILTY SAND (SM)**					

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B-44	10.0ft	**12.5**	**1.368**	**0.462**	**0.118**	**6.2**	**86.4**	**7.4**	
⊠	B-46	15.0ft	**12.5**	**1.23**	**0.424**	**0.134**	**2.2**	**91.6**	**6.2**	
▲	B-48	15.0ft	**9.5**				**0.1**	**27.6**	**72.3**	
★	B-49	10.0ft	**9.5**	**1.514**	**0.429**	**0.113**	**2.9**	**90.2**	**6.8**	
⊙	B-52	5.0ft	**12.5**	**0.683**	**0.198**		**2.1**	**84.0**	**13.8**	

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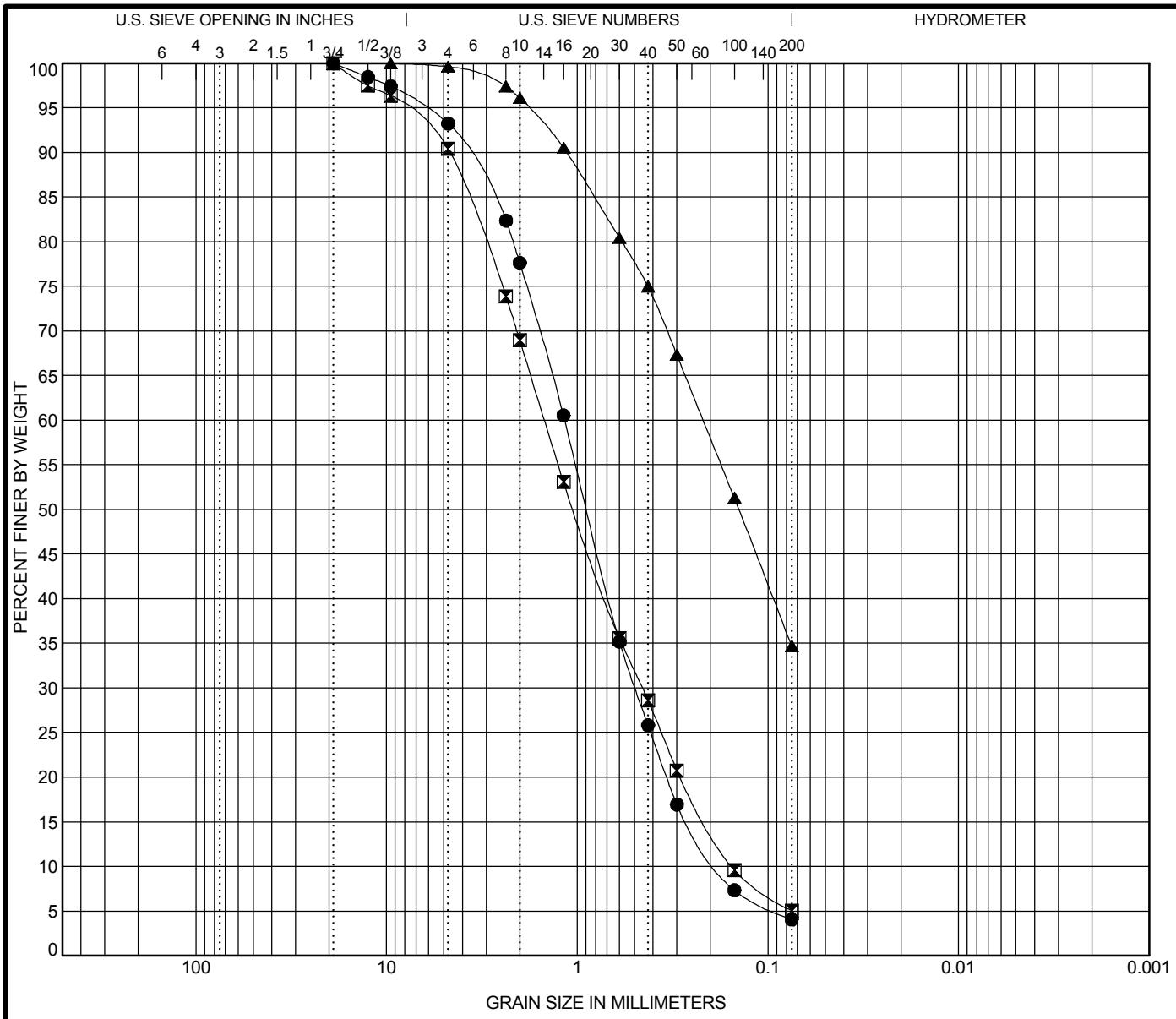
GRAIN SIZE DISTRIBUTION

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09

TC GRAIN SIZE 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**TP-04**	**5.0ft**	**WELL-GRADED SAND (SW)**				**1.16**	**6.39**
⊠	**TP-07**	**5.0ft**	**POORLY GRADED SAND with SILT (SP-SM)**				**0.91**	**9.65**
▲	**TP-10**	**5.0ft**	**SILTY SAND (SM)**					

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-04**	**5.0ft**	**19**	**1.163**	**0.496**	**0.182**	**6.8**	**89.2**	**4.0**	
⊠	**TP-07**	**5.0ft**	**19**	**1.485**	**0.455**	**0.154**	**9.6**	**85.4**	**5.0**	
▲	**TP-10**	**5.0ft**	**9.5**	**0.219**			**0.4**	**65.0**	**34.7**	

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GRAIN SIZE DISTRIBUTION

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09

TC GRAIN SIZE 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

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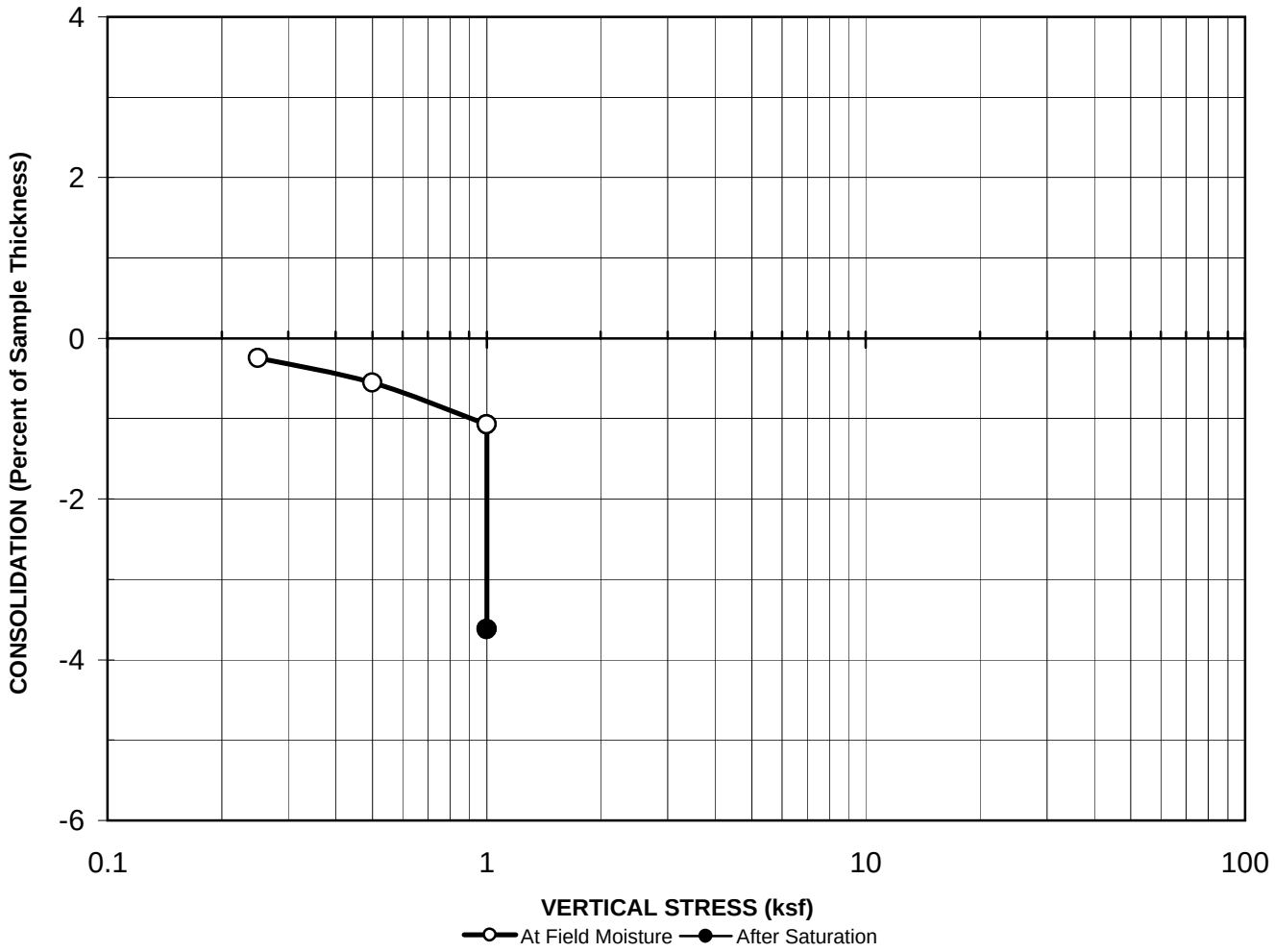
Percent Passing No. 200 Sieve

x ASTM D 1140
AASHTO T11

Client Name: Next Light
Project Name: AV Solar Ranch
Proj. Number: 60085038
Received By: **Date:**
Tested By: CP/MS/JH/SS **Date:** 6/21/2009

	Sample Info.			B	C	D	A = [(C-D)/(C-B)] x 100
	Boring No.	Depth (ft)	USCS Symbol	Weight Tare (g)	Sample Weight + Tare (g) (before Wash)	Sample Weight + Tare (g) (after Wash)	Percent Passing No. 200 Sieve (%)
1	B-08	2.5		0	514.4	377.5	26.6%
2	B-17	2.5		0	406	265.5	34.6%
3	B-22	0 to 2		236.5	406.8	346	35.7%
4	B-25	5		0	413.7	281.6	31.9%
5	B-29	5		0	446.3	316.2	29.2%
6	B-30	7.5		0	414.7	253.7	38.8%
7	B-33	2.5		0	391.5	303.3	22.5%
8	B-37	20		0	559.3	313.8	43.9%
9	B-38	15		0	887.8	557.9	37.2%
10	B-40	15		0	625.1	386.7	38.1%
11	B-42	15		0	491.5	299.3	39.1%
12	TP-08	5		240.4	509	424.3	31.5%
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							

Notes:

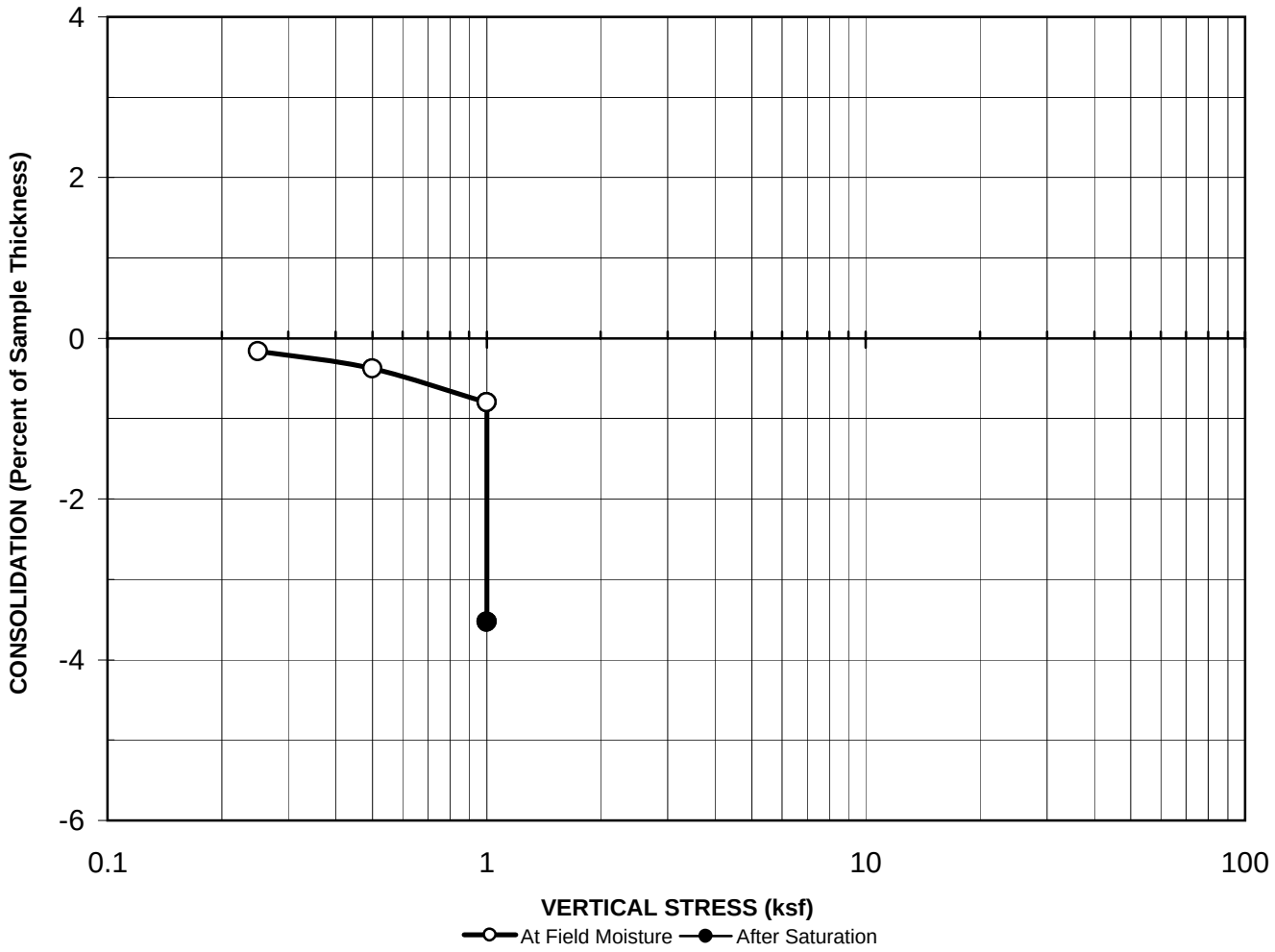


Boring No. :	B-03	Initial Dry Unit Weight (pcf):	107.4
Sample No.:	NA	Initial Moisture Content (%):	2.0
Depth (feet):	2.5	Final Moisture Content (%):	15.5
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Silty Sand (SM)	Initial Void Ratio:	0.57
		Collapse Potential (%):	2.6

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
Consulting Engineers & Scientists



Boring No. :	B-07	Initial Dry Unit Weight (pcf):	105.0
Sample No.:	NA	Initial Moisture Content (%):	1.9
Depth (feet):	2.5	Final Moisture Content (%):	16.4
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Silty Sand (SM)	Initial Void Ratio:	0.60
		Collapse Potential (%):	2.7

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
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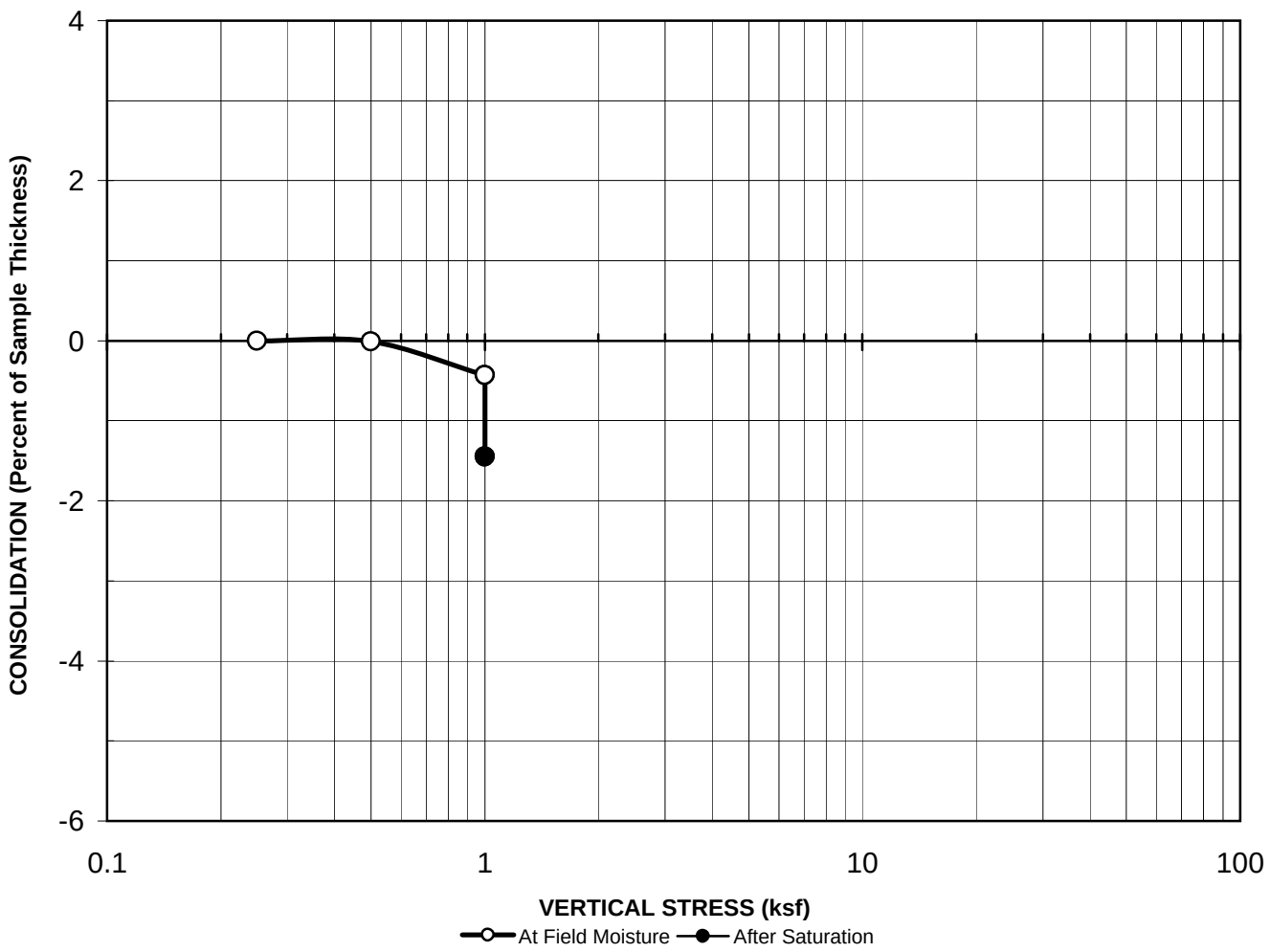

Boring No. :	B-07	Initial Dry Unit Weight (pcf):	105.9
Sample No.:	NA	Initial Moisture Content (%):	2.7
Depth (feet):	5	Final Moisture Content (%):	16.3
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Well-Graded Sand (SW)	Initial Void Ratio:	0.59
		Collapse Potential (%):	1.0

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

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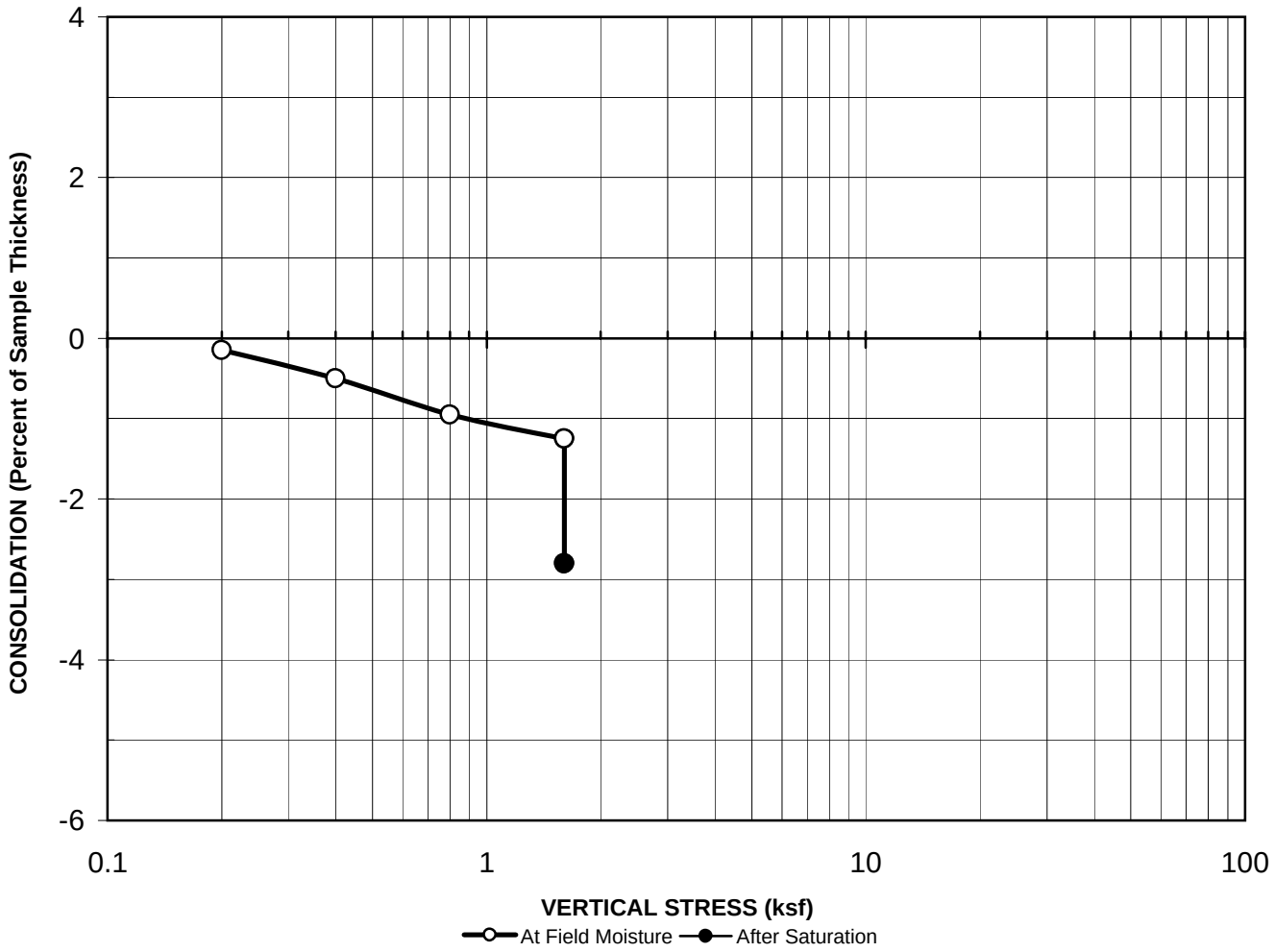

Boring No. :	B-09	Initial Dry Unit Weight (pcf):	110.9
Sample No.:	NA	Initial Moisture Content (%):	1.2
Depth (feet):	15	Final Moisture Content (%):	7.8
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Sandy Lean Clay (CL)	Initial Void Ratio:	0.52
		Collapse Potential (%):	1.6

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/24/2009
Figure No:

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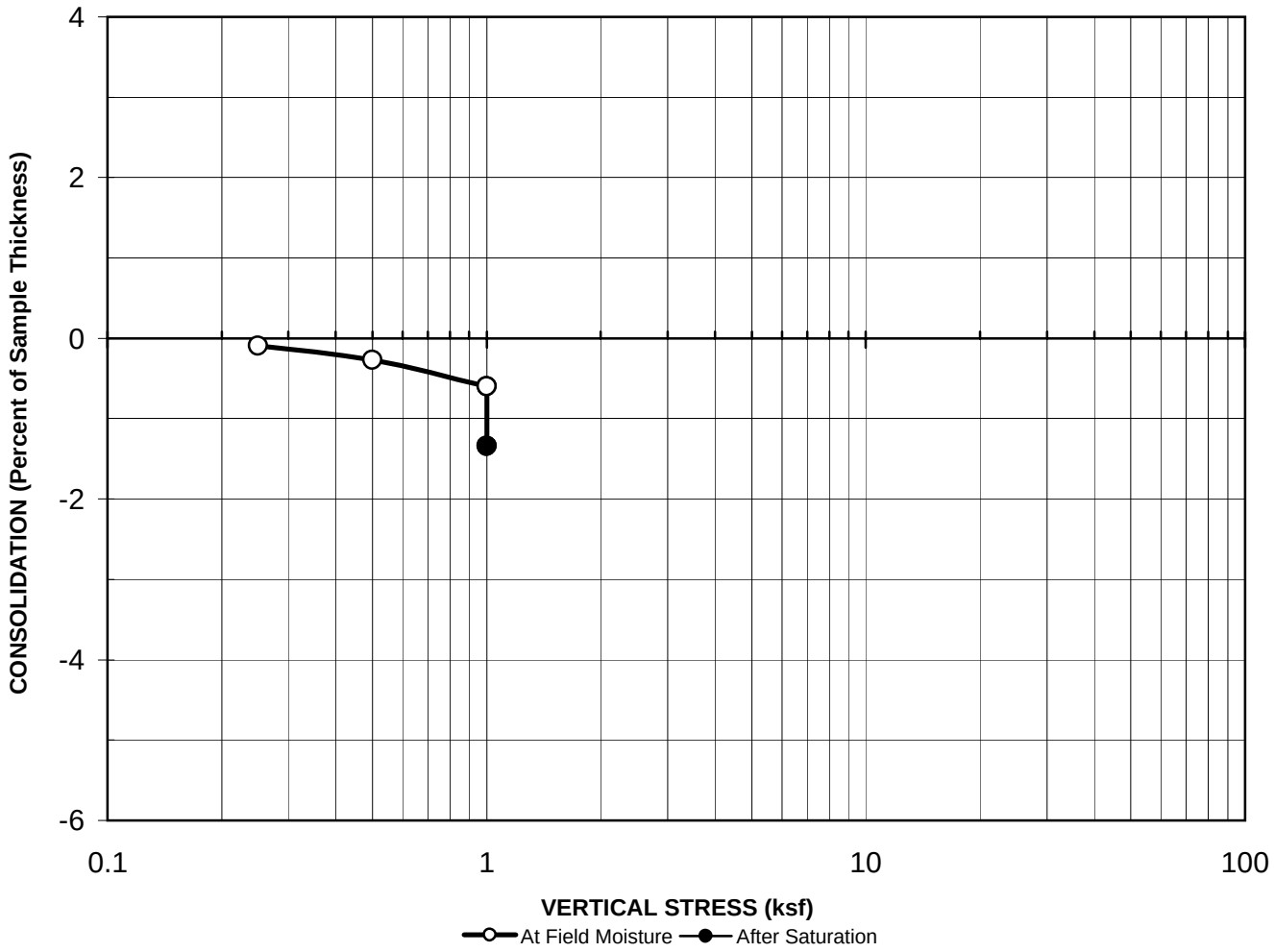
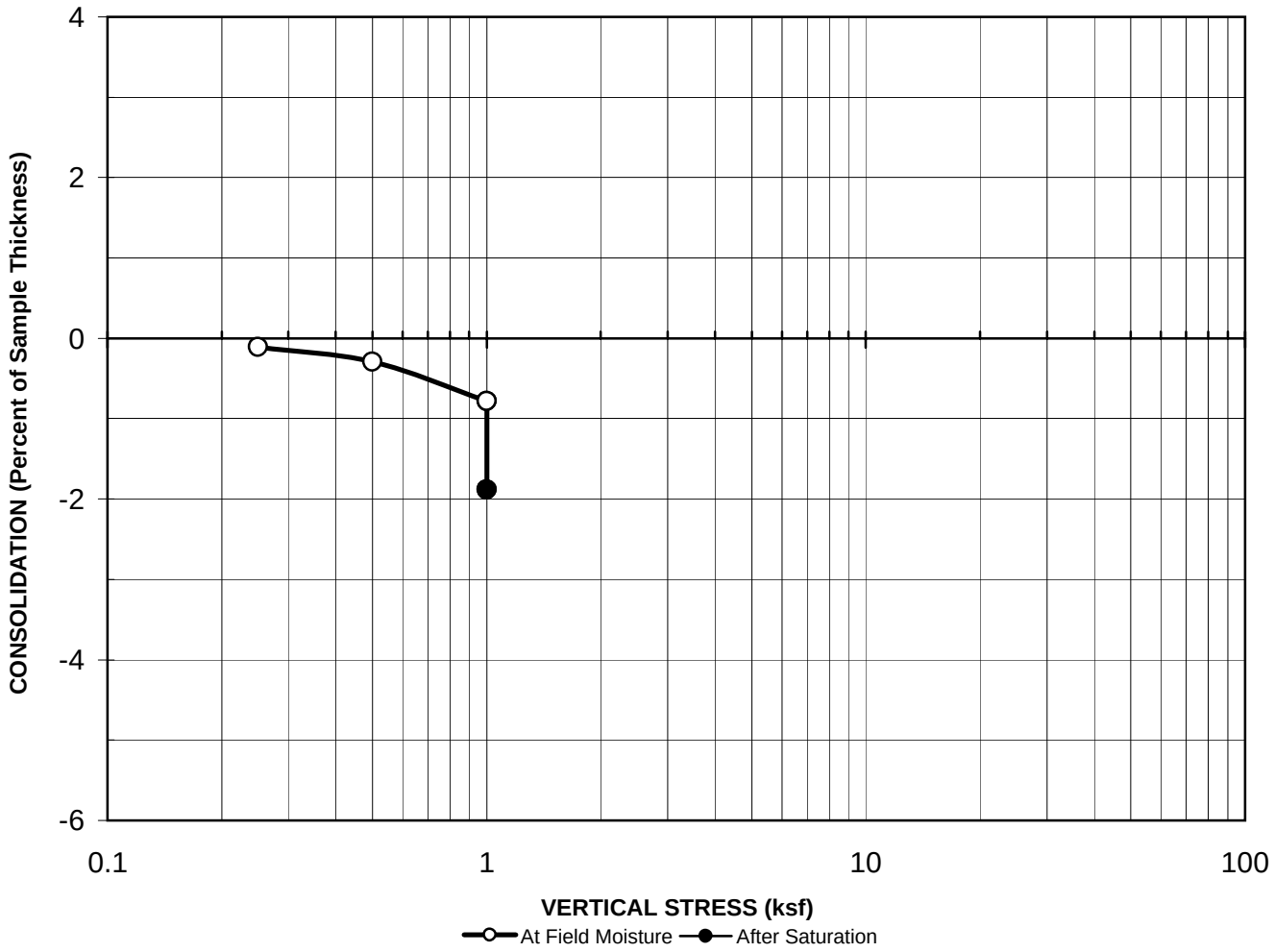


Boring No. :	B-21	Initial Dry Unit Weight (pcf):	107.5
Sample No.:	NA	Initial Moisture Content (%):	1.3
Depth (feet):	2.5	Final Moisture Content (%):	17.3
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Silty Sand (SM)	Initial Void Ratio:	0.57
		Collapse Potential (%):	0.7

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
Consulting Engineers & Scientists

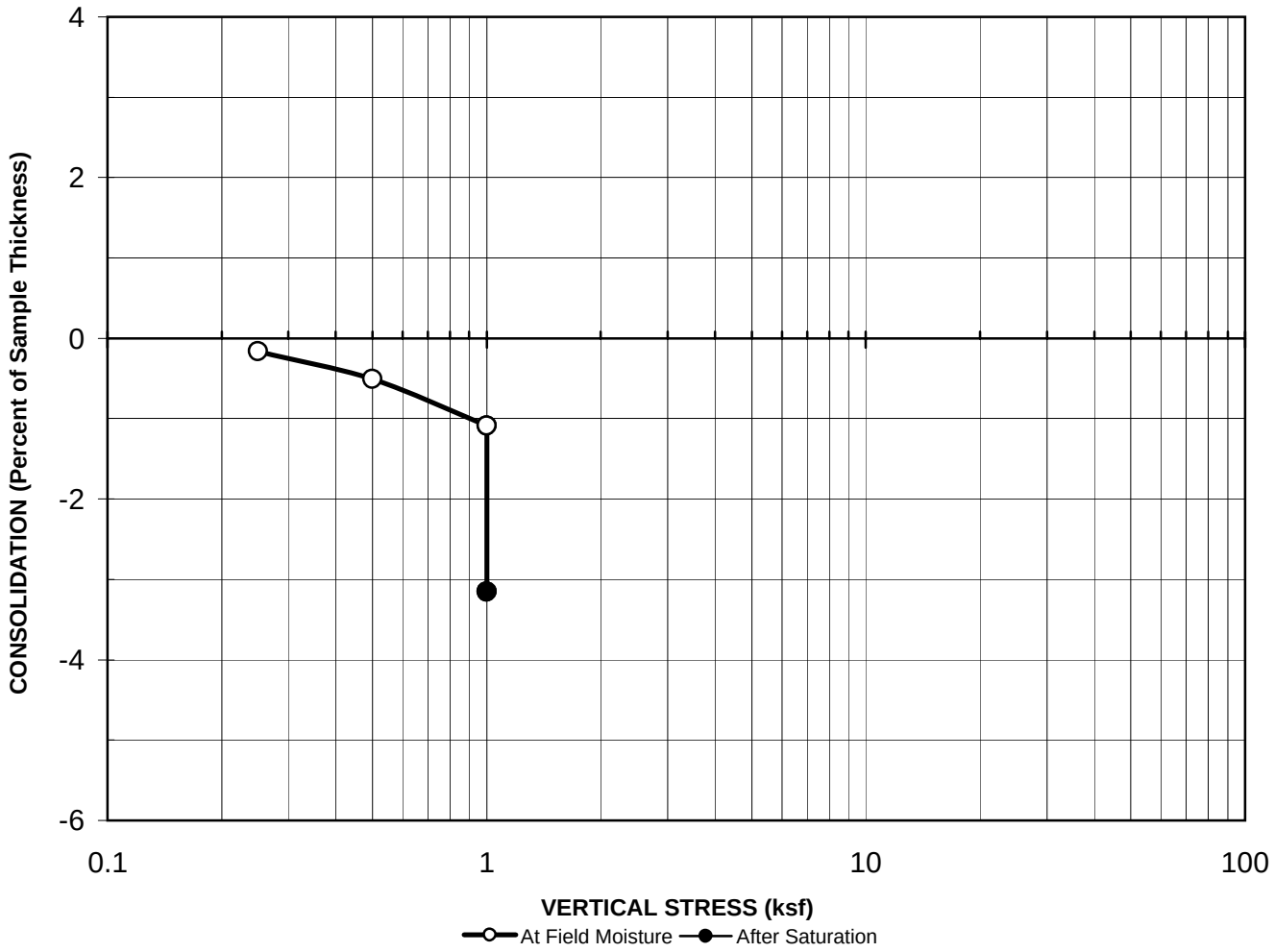


Boring No. :	B-21	Initial Dry Unit Weight (pcf):	106.8
Sample No.:	NA	Initial Moisture Content (%):	1.1
Depth (feet):	5	Final Moisture Content (%):	18.3
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Poorly Graded Sand with Gravel	Initial Void Ratio:	0.58
		Collapse Potential (%):	1.1

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
Consulting Engineers & Scientists

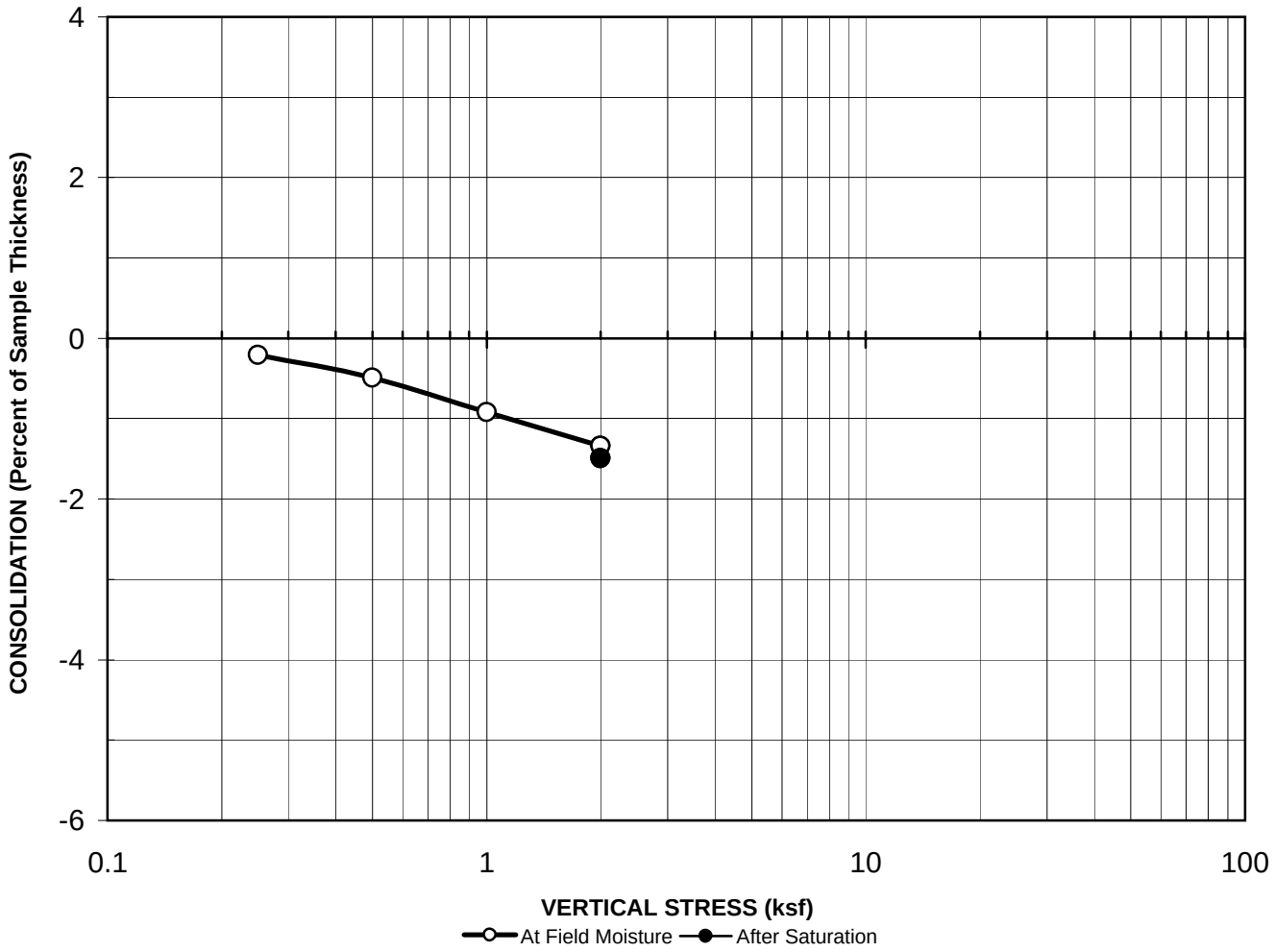


Boring No. :	B-22	Initial Dry Unit Weight (pcf):	75.8
Sample No.:	NA	Initial Moisture Content (%):	11.7
Depth (feet):	2.5	Final Moisture Content (%):	43.4
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Sandy Silt (ML)	Initial Void Ratio:	1.22
		Collapse Potential (%):	2.1

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
Consulting Engineers & Scientists

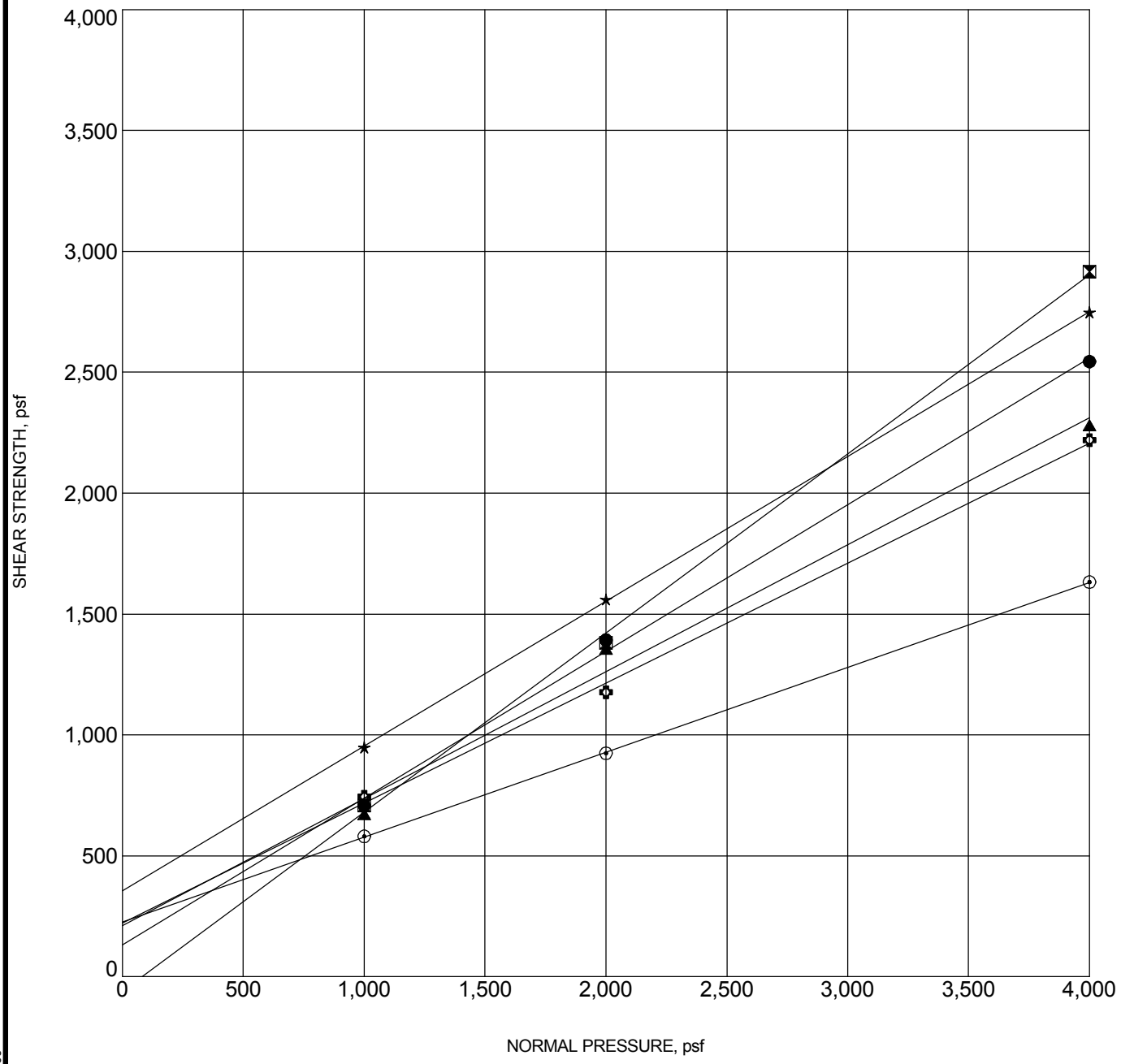


Boring No. :	B-26	Initial Dry Unit Weight (pcf):	75.8
Sample No.:	NA	Initial Moisture Content (%):	11.7
Depth (feet):	15	Final Moisture Content (%):	22.9
Sample Type:	Undisturbed	Assumed Specific Gravity:	2.7
Soil Description:	Silty Sand (SM)	Initial Void Ratio:	1.22
		Collapse Potential (%):	0.2

COLLAPSE POTENTIAL
ASTM D 5333

Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/21/2009
Figure No:

Terracon
Consulting Engineers & Scientists



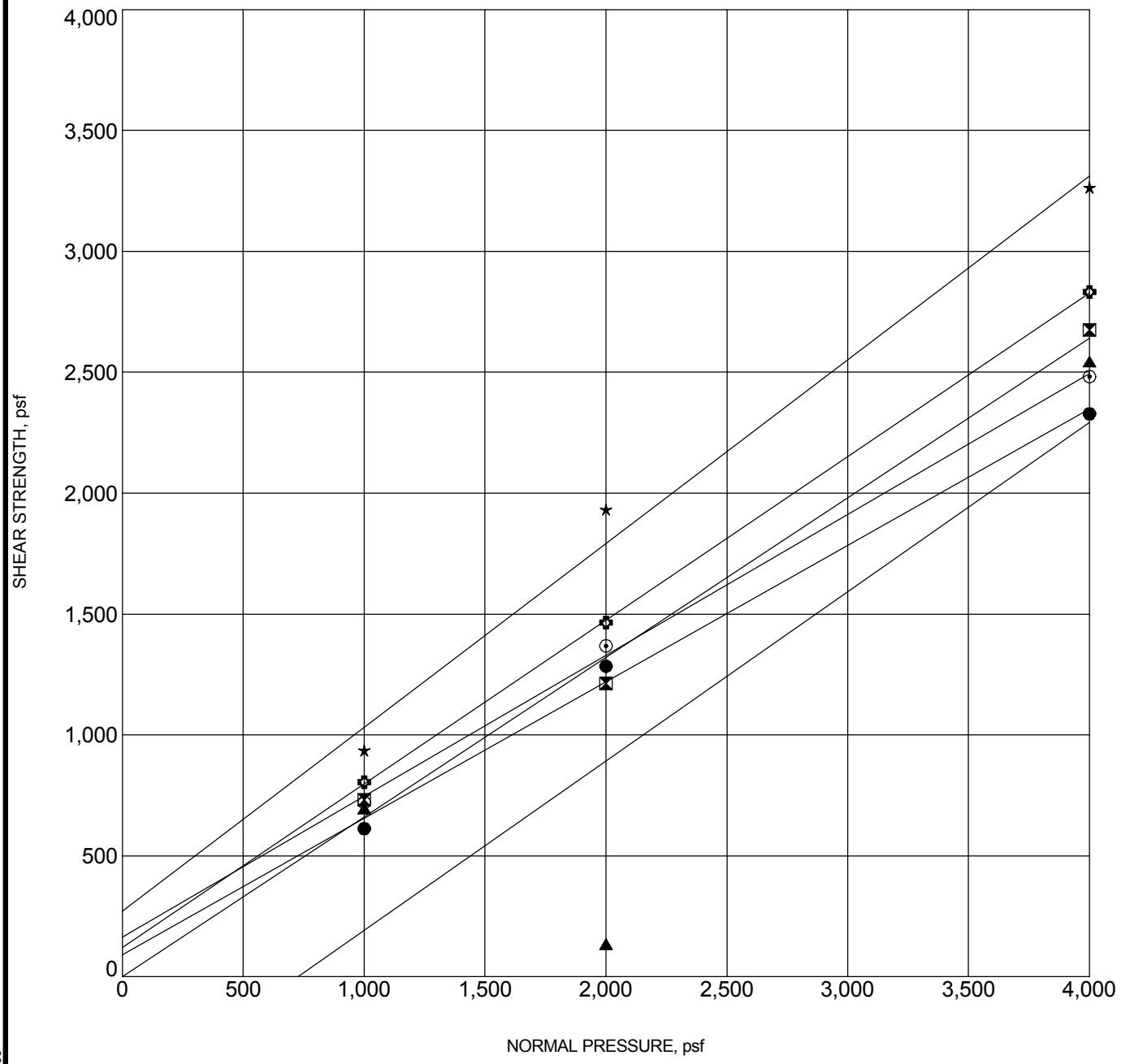
Specimen Identification			Classification	γ_d, pcf	WC,%	c, psf	ϕ^o
●	B-01	5.0ft	POORLY GRADED SAND with SILT (SP-SM)	110	1	132	31
⊠	B-02	5.0ft	POORLY GRADED SAND with GRAVEL (SP-SM)	111	1	0	36
▲	B-04	5.0ft	CLAYEY SAND (SC)	110	3	210	28
★	B-13	2.5ft	SILTY SAND (SM)	108	2	354	31
⊙	B-22	2.5ft	SANDY SILT (ML)	83	12	226	19
✿	B-24	2.5ft	SILTY SAND (SM)	111	4	222	26

Terracon

DIRECT SHEAR TEST

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09

TC DIRECT SHEAR 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09



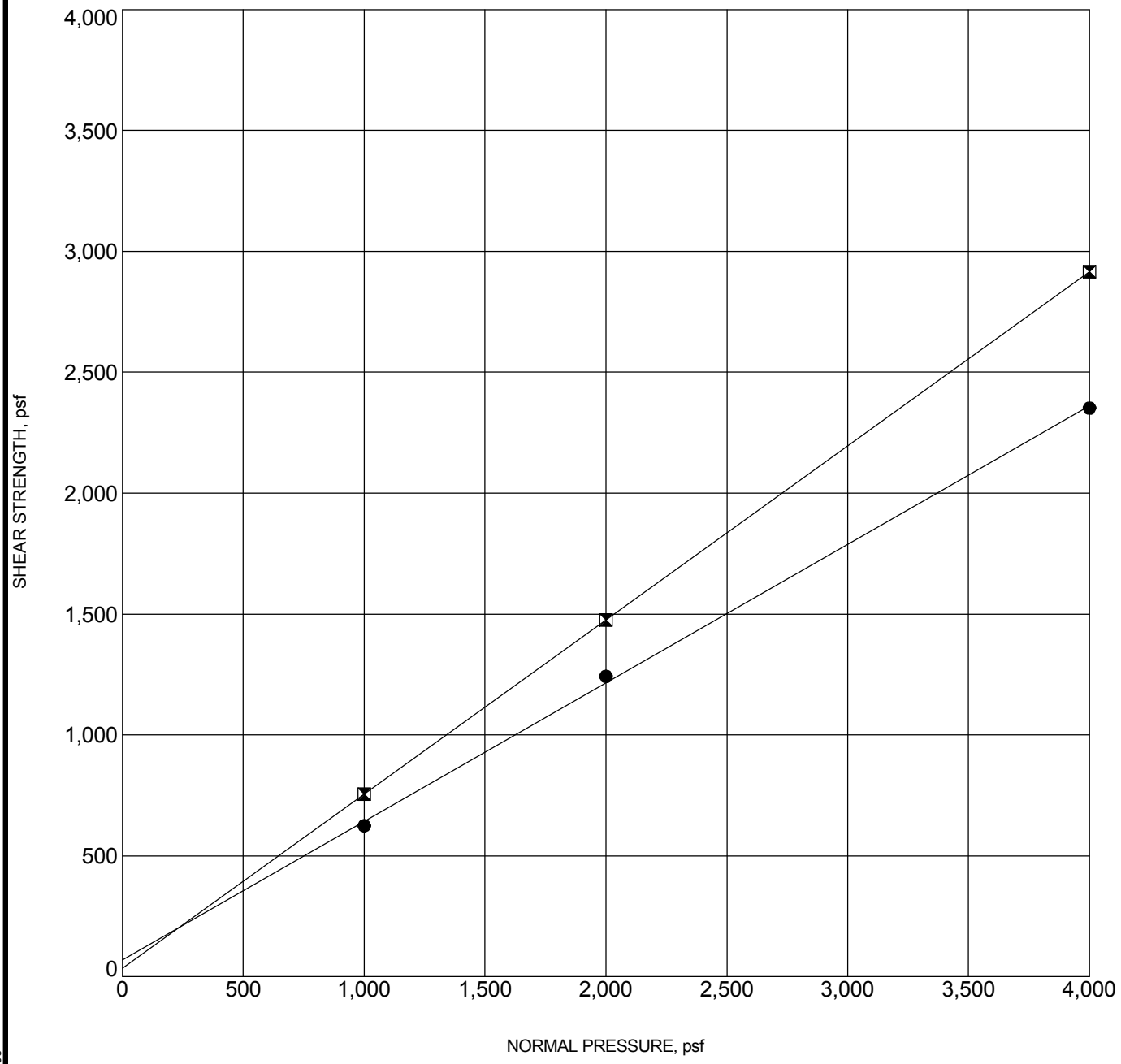
Specimen Identification			Classification	γ_d, pcf	WC,%	c, psf	$\phi°$
●	**B-25**	**2.5ft**	**SILTY SAND (SM)**	**104**	**7**	**90**	**29**
⊠	**B-26**	**2.5ft**	**SILTY SAND (SM)**	**108**	**10**	**0**	**33**
▲	**B-28**	**5.0ft**	**SILTY SAND (SM)**	**104**	**5**	**0**	**28**
★	**B-29**	**10.0ft**	**SILTY SAND (SM)**	**115**	**9**	**270**	**37**
⊙	**B-38**	**5.0ft**	**SILTY SAND (SM)**	**102**	**2**	**163**	**30**
✿	**B-42**	**10.0ft**	**SILTY SAND (SM)**	**106**	**5**	**120**	**34**

Terracon

DIRECT SHEAR TEST

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09

TC DIRECT SHEAR 60085038 AV SOLAR LOGS.GPJ TERRACON.GDT 7/2/09

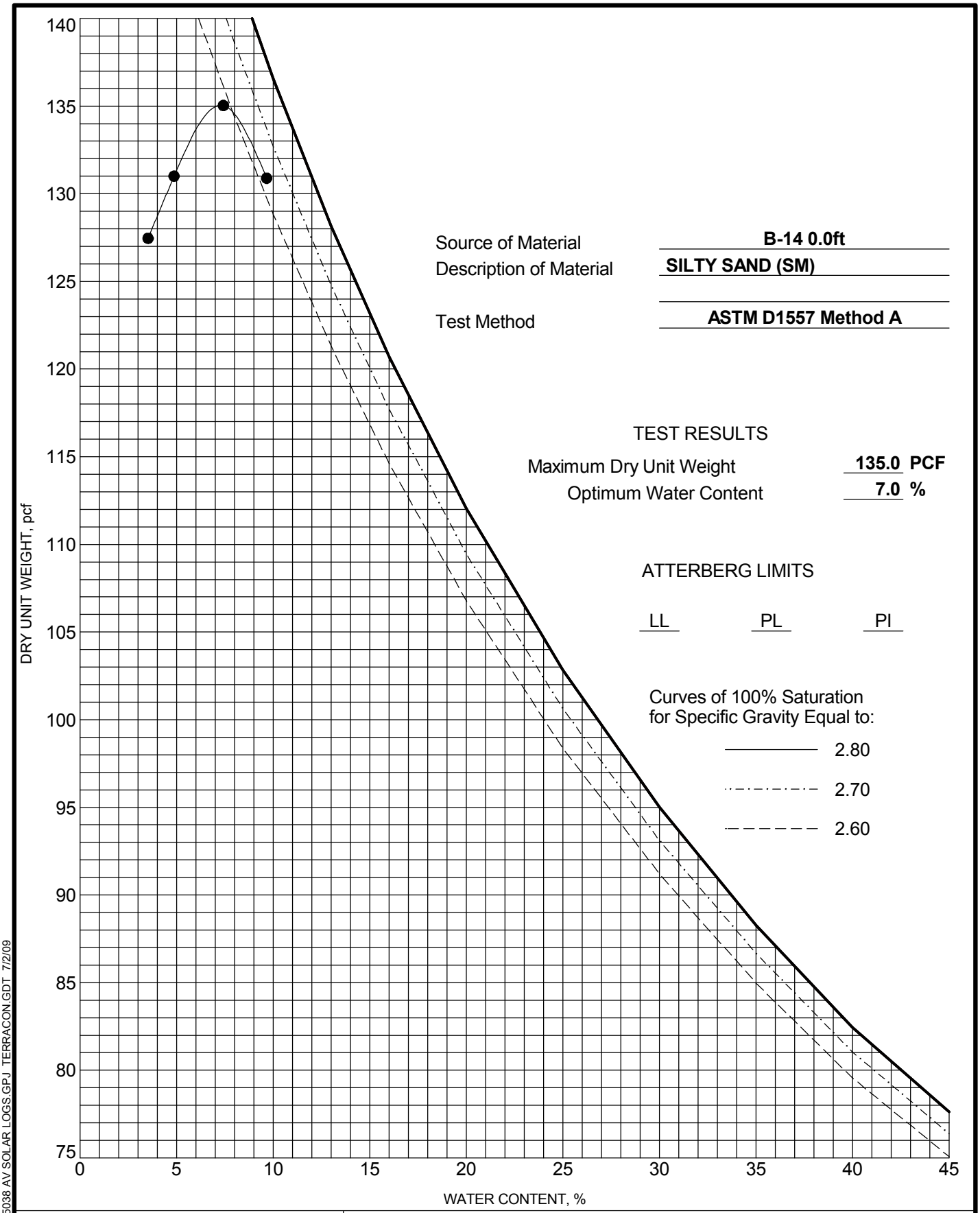


Specimen Identification			Classification	γ_d, pcf	WC,%	c, psf	$\phi°$
●	**B-43**	**2.5ft**	**SILTY SAND (SM)**	**109**	**4**	**69**	**30**
⊠	**B-45**	**5.0ft**	**SILTY SAND (SM)**	**108**	**3**	**34**	**36**

Terracon

DIRECT SHEAR TEST

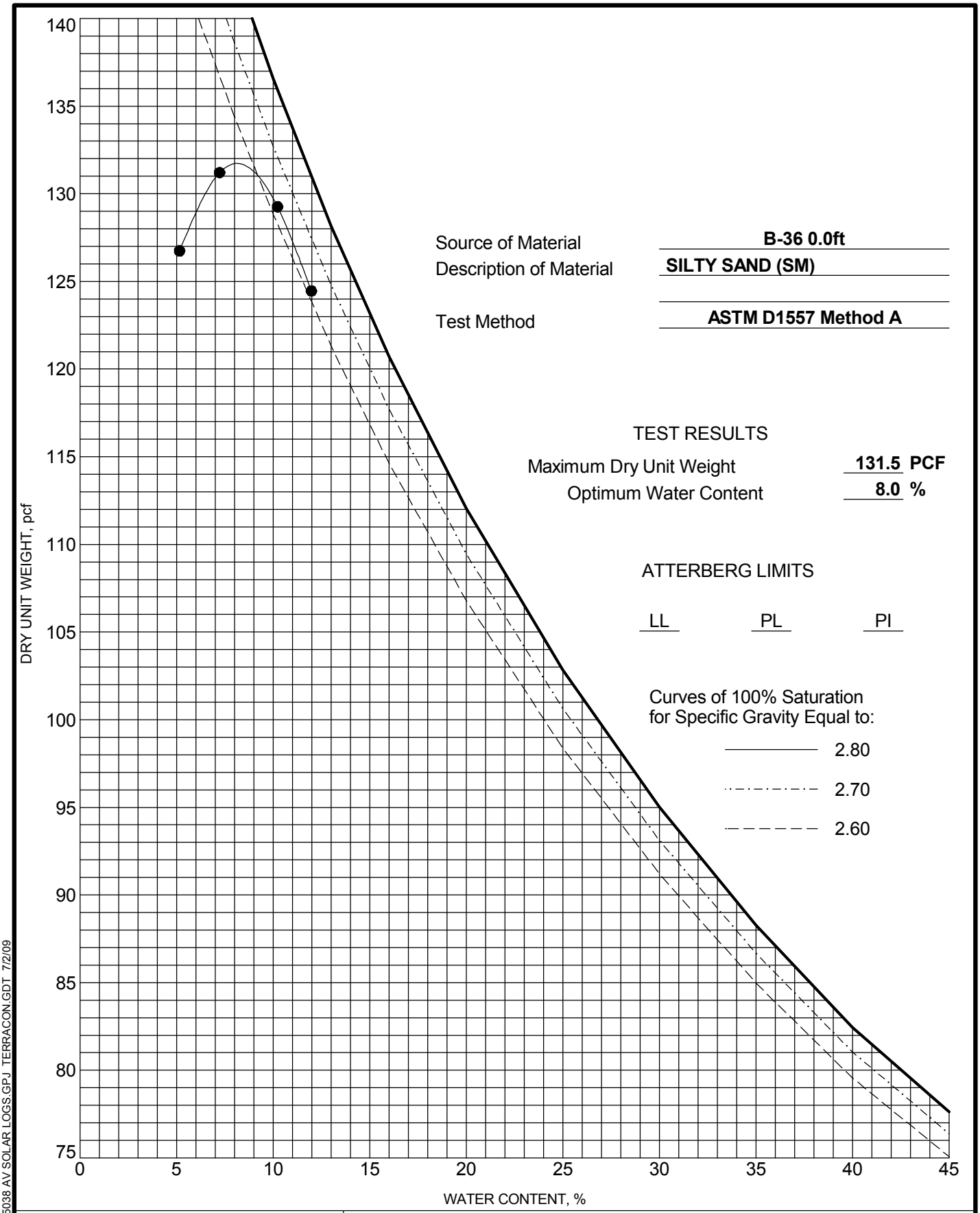
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

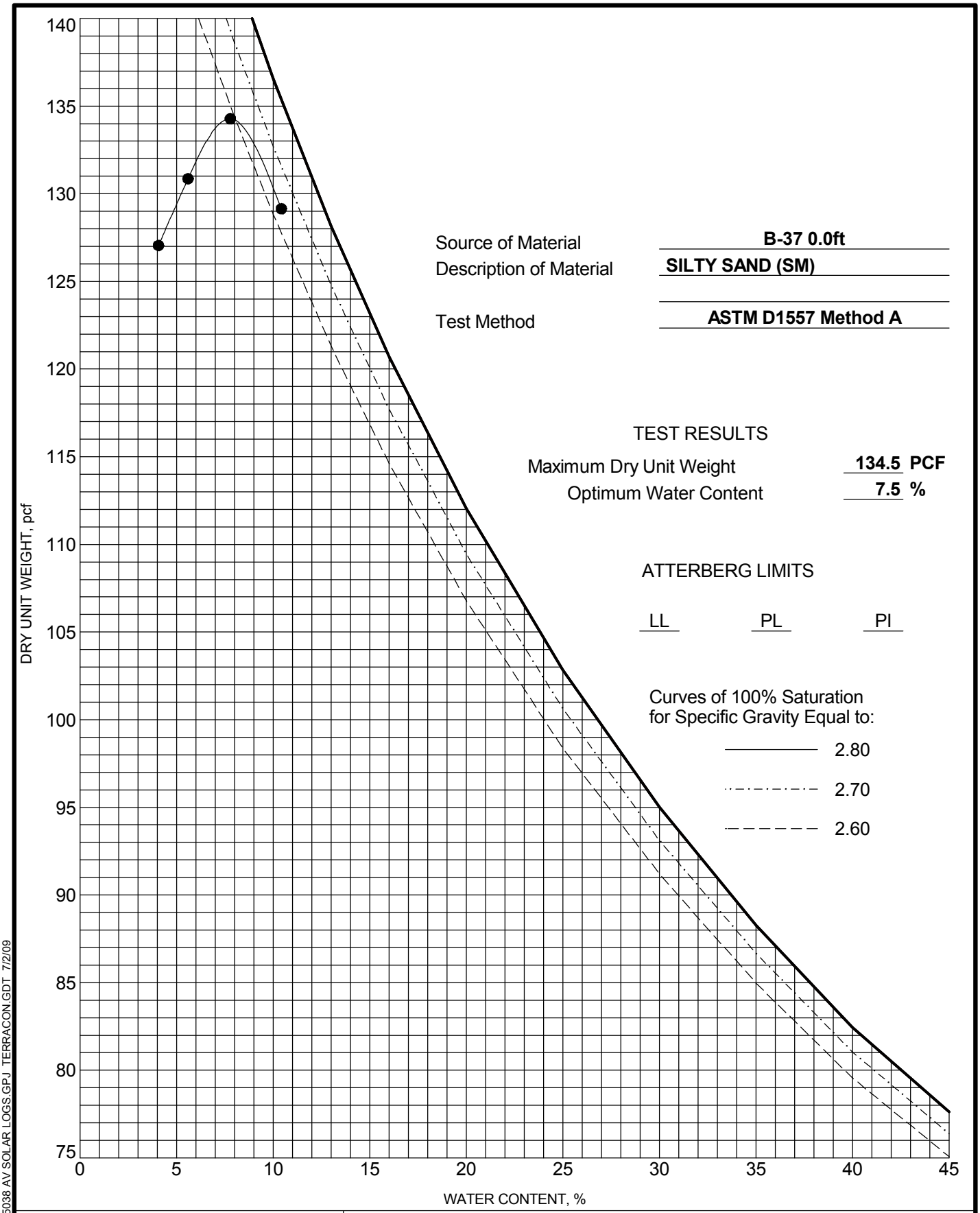
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

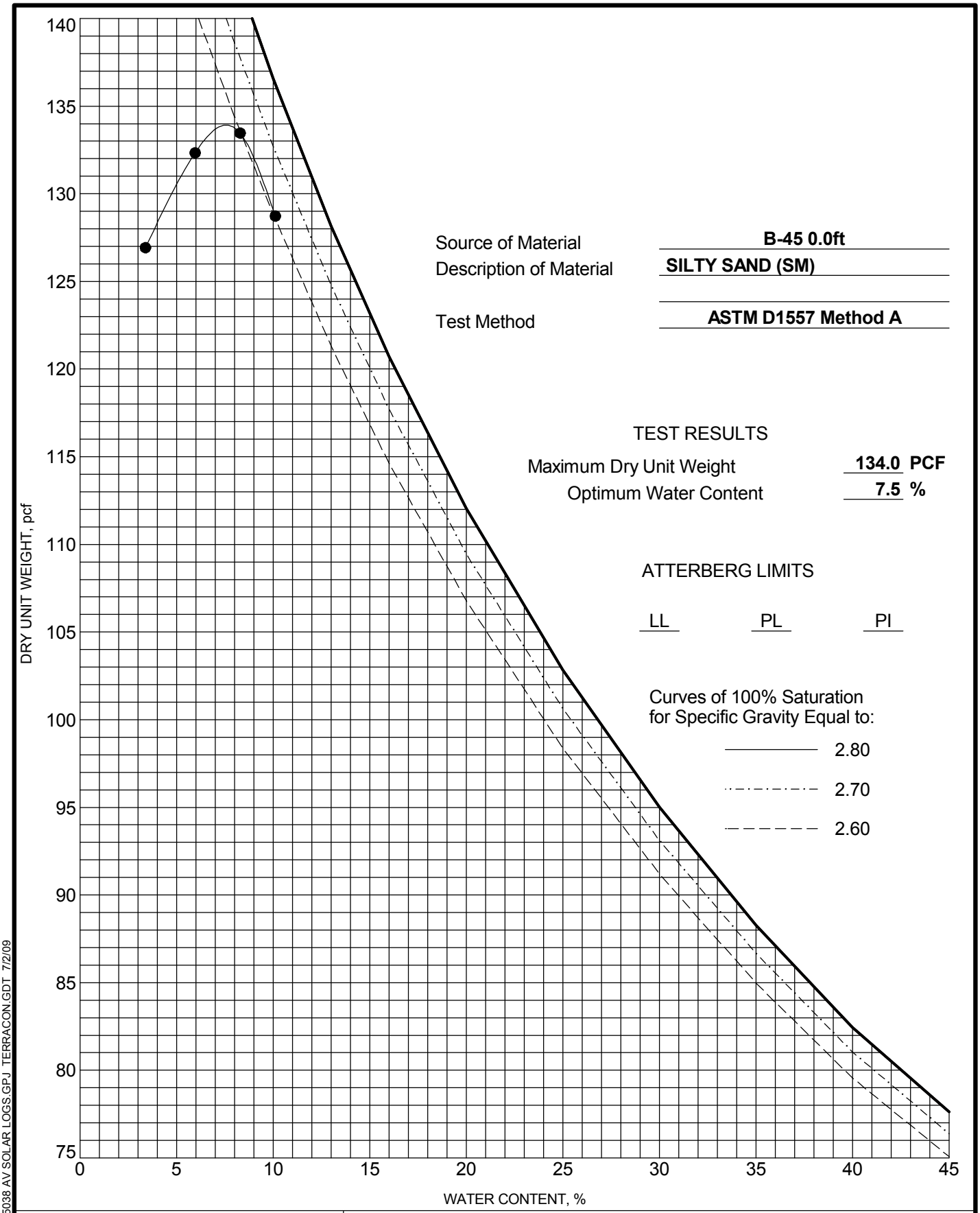
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

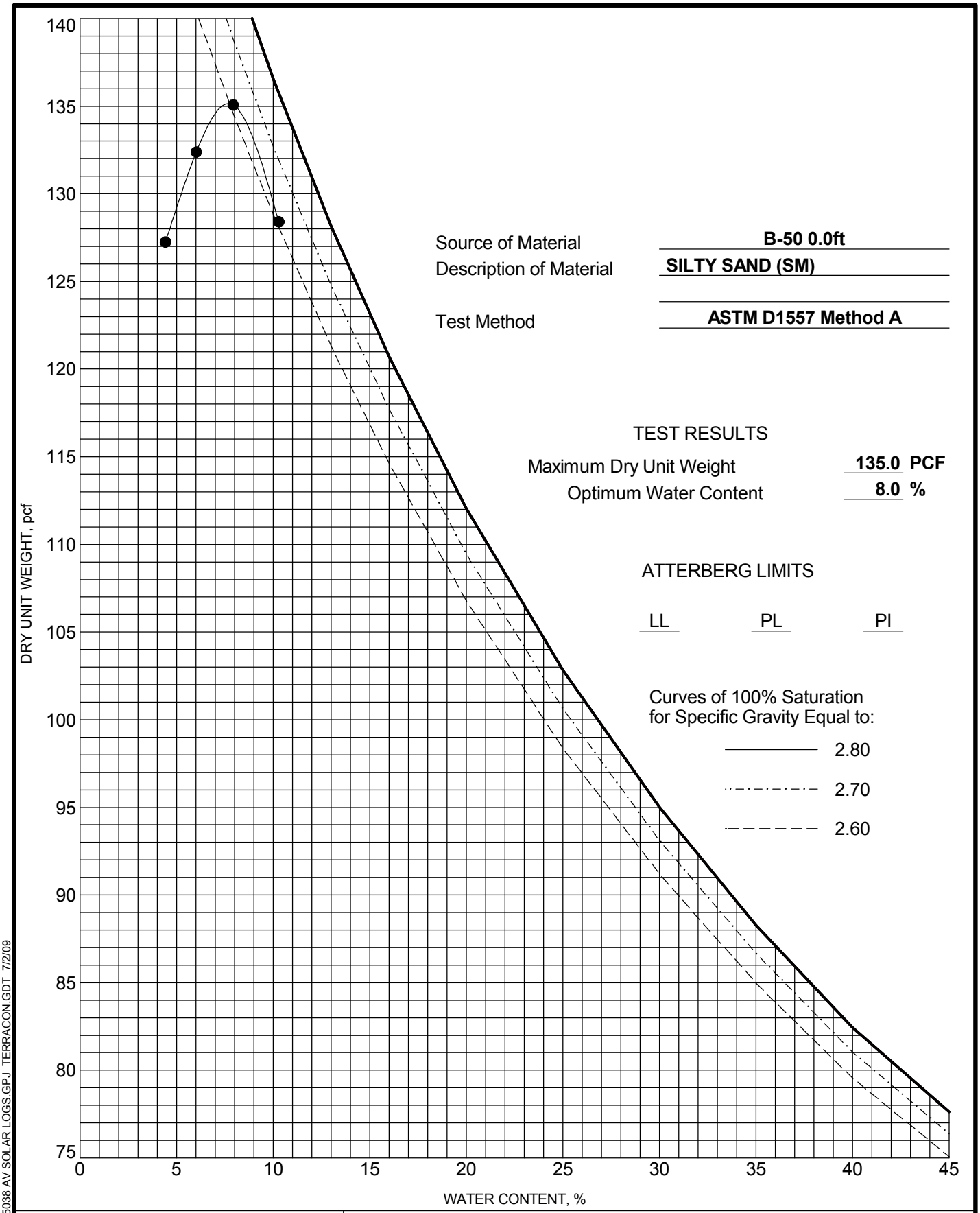
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

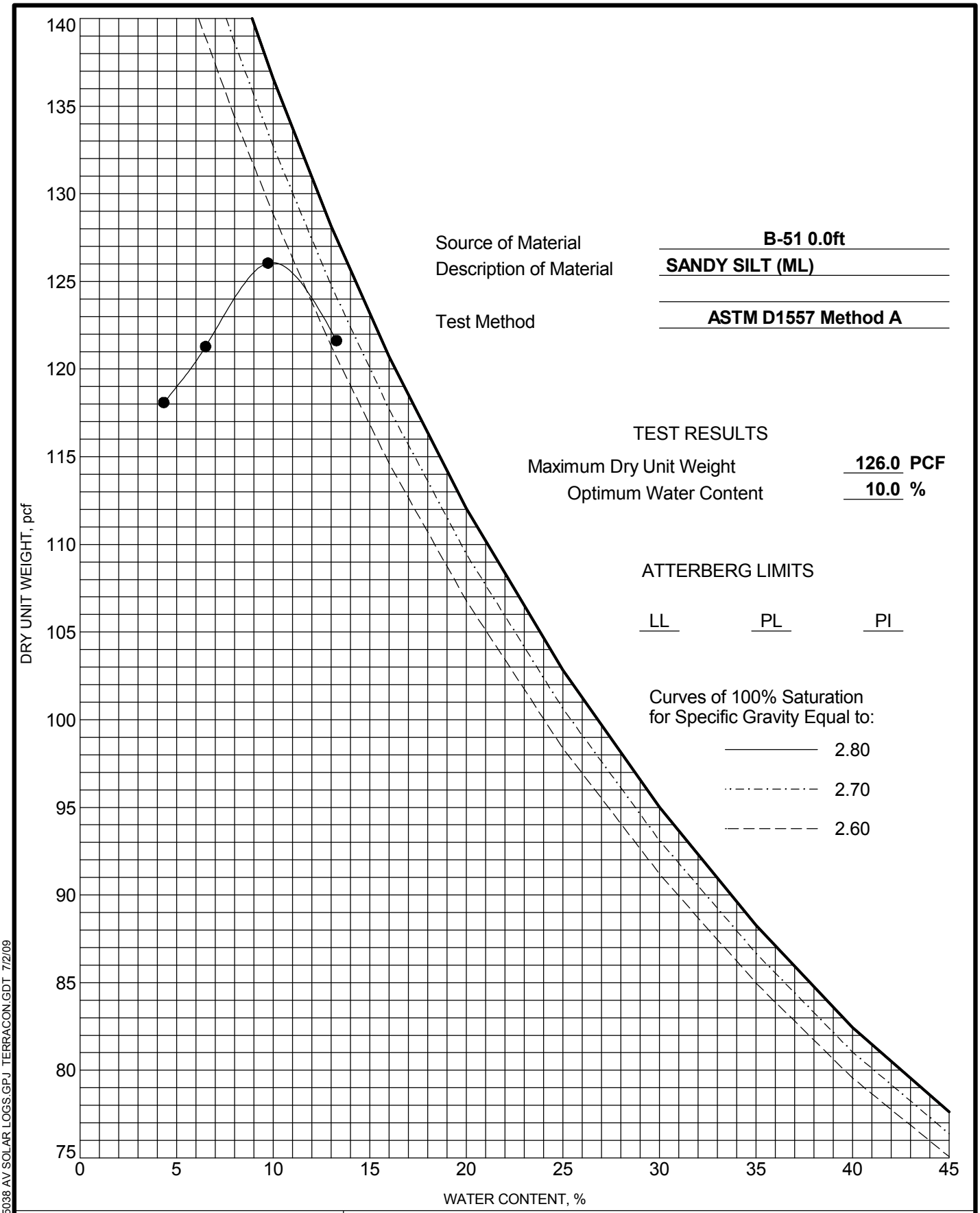
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

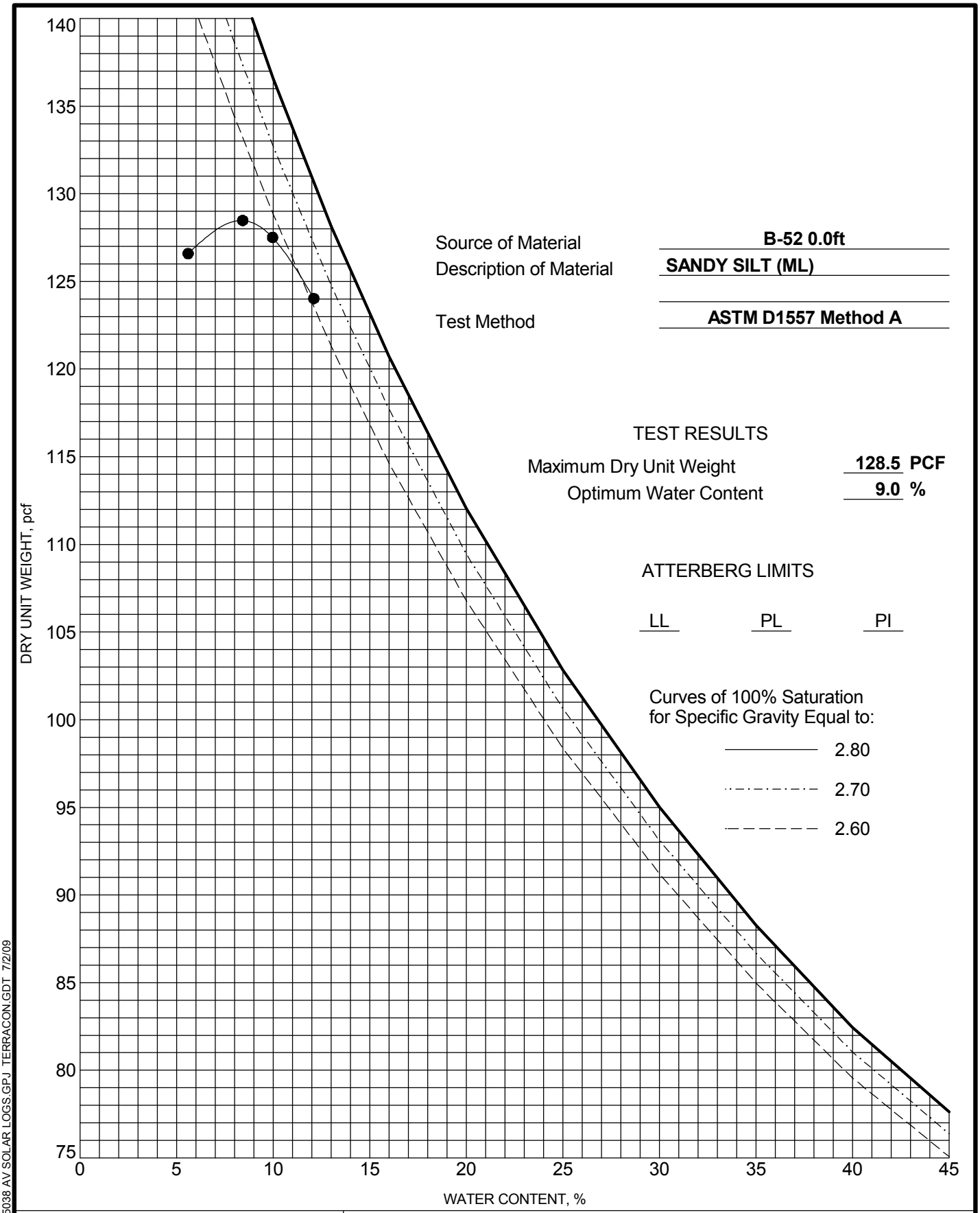
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

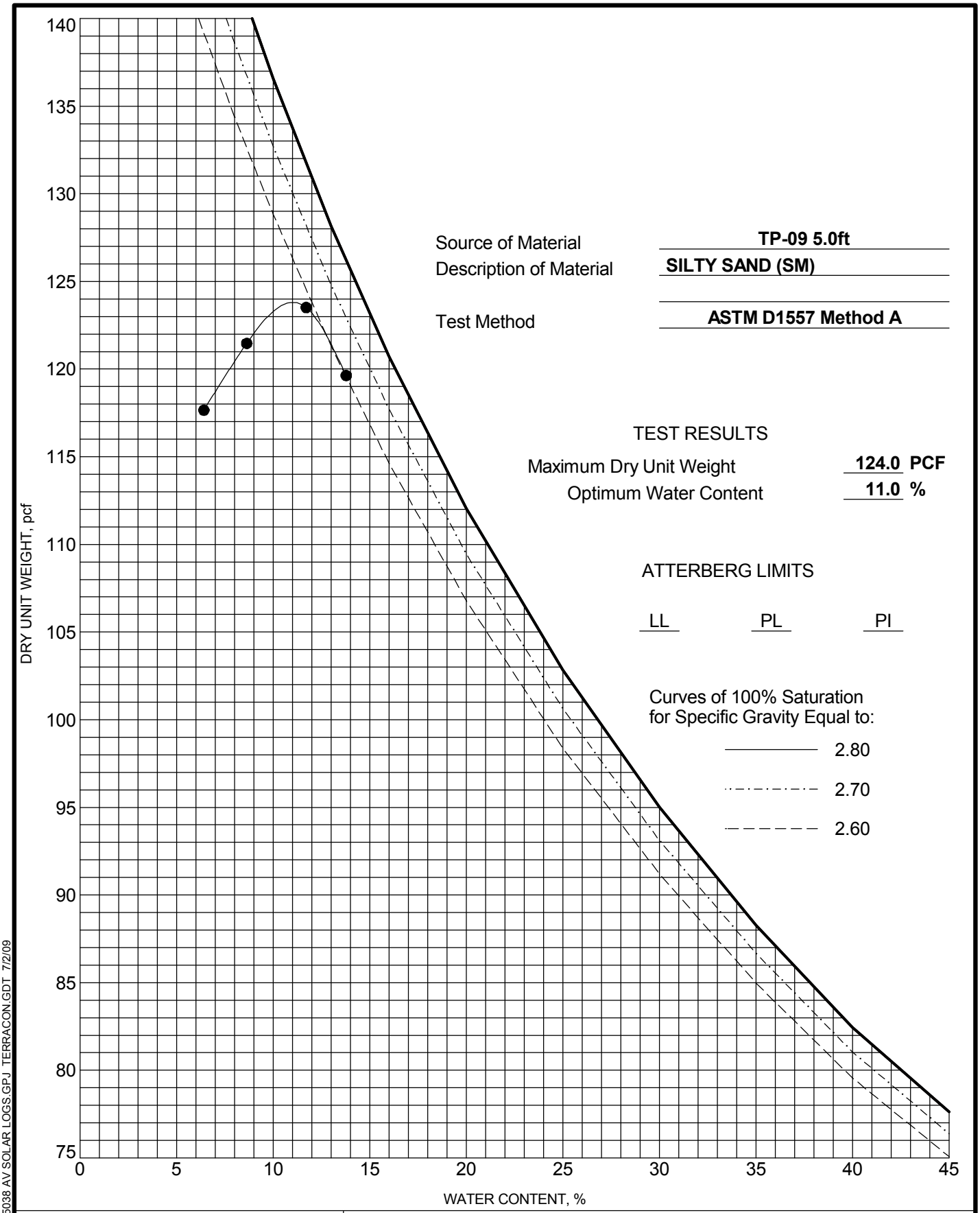
Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09



Terracon

MOISTURE-DENSITY RELATIONSHIP

Project: AV Solar Ranch 1
Site: West Avenue D and 170th Avenue West Lancaster, CA
Job #: 60085038
Date: 7-2-09

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Consulting Engineers & Scientists

Expansion Index

Project: AV Solar Ranch
Proj. No.: 60085038
Tested By: CP **Date:** 6/21/2009

Sample and Soil Information	
Boring No.:	**B-04**
Sample No.:	**NA**
Sample Depth:	**0 to 2'**
Soil Classification (USCS Symbol):	**Clayey Sand (SC)**

Test Standard Used	
	UBC 18-2
X	ASTM D 4829

Weight Prior to Screening	NA	g
Weight After Screening	NA	g
Percent Retained on #4 Sieve	NA	%

Moisture Determination	Units	Initial	Final
Assumed Moisture Content	%		
Tare Weight	g	214.1	181.0
Weight of Soil (Wet) + Tare	g	328.8	819.5
Weight of Soil (Dry) + Tare	g	321.5	749.0
Moisture Content	%	6.8%	18.4%
Density Determination			
Weight of Soil + Ring (Wet)	g	592.1	638.5
Weight of Ring	g	184.9	184.9
Wet Weight of Soil	g	407.2	453.6
Wet Density	pcf	123.8	
Final Sample Height	in		1.0031
Final Volume	ft^3		0.0073
Final Wet Density	pcf		137.1
Dry Density	pcf	115.9	115.8
Degree of Saturation (G_s = 2.7)	%	40.5	109.3

Initial Dry Density	115.9	pcf
Initial MC	6.8	%
Initial Saturation	**40.5**	%
Final Dry Density	115.8	pcf
Final MC	18.4	%
Final Saturation	**109.3**	%

	Date	Time	Dial Reading	Deflection
Start	6/21/2009	15:33	0.2362	
Add Water (After 10 minutes)	**6/21/2009**	**18:43**	**0.2355**	**-0.0007**
		17:40	0.2667	
				-
				-
				-
				-
				-
	6/22/2009	11:06	0.2695	0.0340
24 hours	**6/22/2009**	**17:05**	**0.2698**	**0.0343**

EI	Measured Expansion Index =	34	Recommend to use EI =	**29**
EI_{50}	Expansion Index =	29		

Terracon
Consulting Engineers & Scientists

CORROSION TEST RESULTS

Client Name: NextLight
Project Name: AV Solar Ranch
Project No.: 60085038
Date: 6/22/2009

Boring No.	Sample No.	Depth (ft)	Soil Type	Minimum Resistivity (ohm-cm)	pH	Temp. (°C)	Sulfate Content (% by weight)	Chloride Content (ppm)
B-01	NA	0 to 2	SC	13,000	6.35	23.1	0.009	61
B-03	NA	0 to 2	SC-SM	13,000	6.03	23.0	0.009	61
B-04	NA	0 to 2	SC	3,800	6.63	22.9	0.009	63
B-06	NA	0 to 2	SC	4,000	6.93	22.9	0.010	62
B-08	NA	0 to 2	SM	15,000	6.51	23.0	0.009	61
B-11	NA	0 to 2	SM	12,000	6.52	23.1	0.010	62
B-16	NA	0 to 2	SW	20,000	6.65	23.2	0.009	61
B-18	NA	0 to 2	SC	17,000	6.47	23.2	0.009	61
B-20	NA	0 to 2	SC	8,900	6.93	23	0.009	61
B-22	NA	0 to 2	SM	6,600	6.48	22.7	0.009	62
B-23	NA	0 to 2	SC	15,000	6.43	23.2	0.009	61
B-26	NA	0 to 2	SM	8,500	6.39	22.8	0.009	62
B-28	NA	0 to 2	SM	4,600	6.68	22.8	0.009	63
B-29	NA	0 to 2	SM	4,600	7.29	23.1	0.009	62
B-32	NA	0 to 2	SM	17,000	6.47	22.8	0.009	61
B-33	NA	0 to 2	SM	7,800	7.44	22.9	0.009	62
B-41	NA	0 to 2	SM	8,900	6.5	22.9	0.009	61
B-43	NA	0 to 2	SM	8,100	6.64	23.3	0.009	62
B-46	NA	0 to 2	SC-SM	11,000	6.82	23.3	0.009	62
B-47	NA	0 to 2	SC	11,000	6.39	23.1	0.010	62
B-52	NA	0 to 2	ML	7,200	6.97	23.3	0.010	62

NOTES:
Resistivity Test and pH: California Test Methods 643
Sulfate Content : California Test Method 417
Chloride Content : California Test Method 422
ND = Not Detectable
NA = Not Sufficient Sample
NR = Not Requested

APPENDIX D

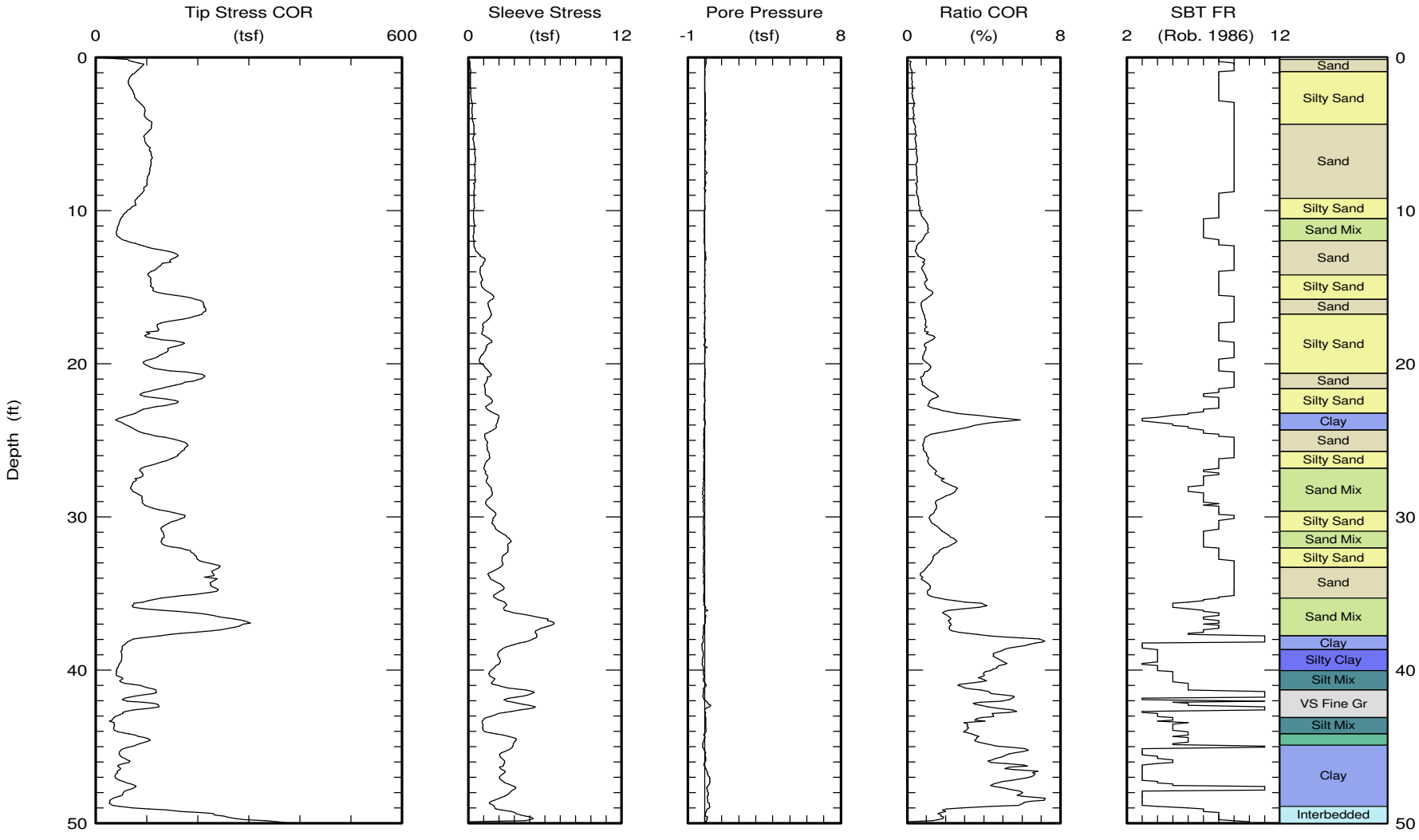
CPT DATA

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-1
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



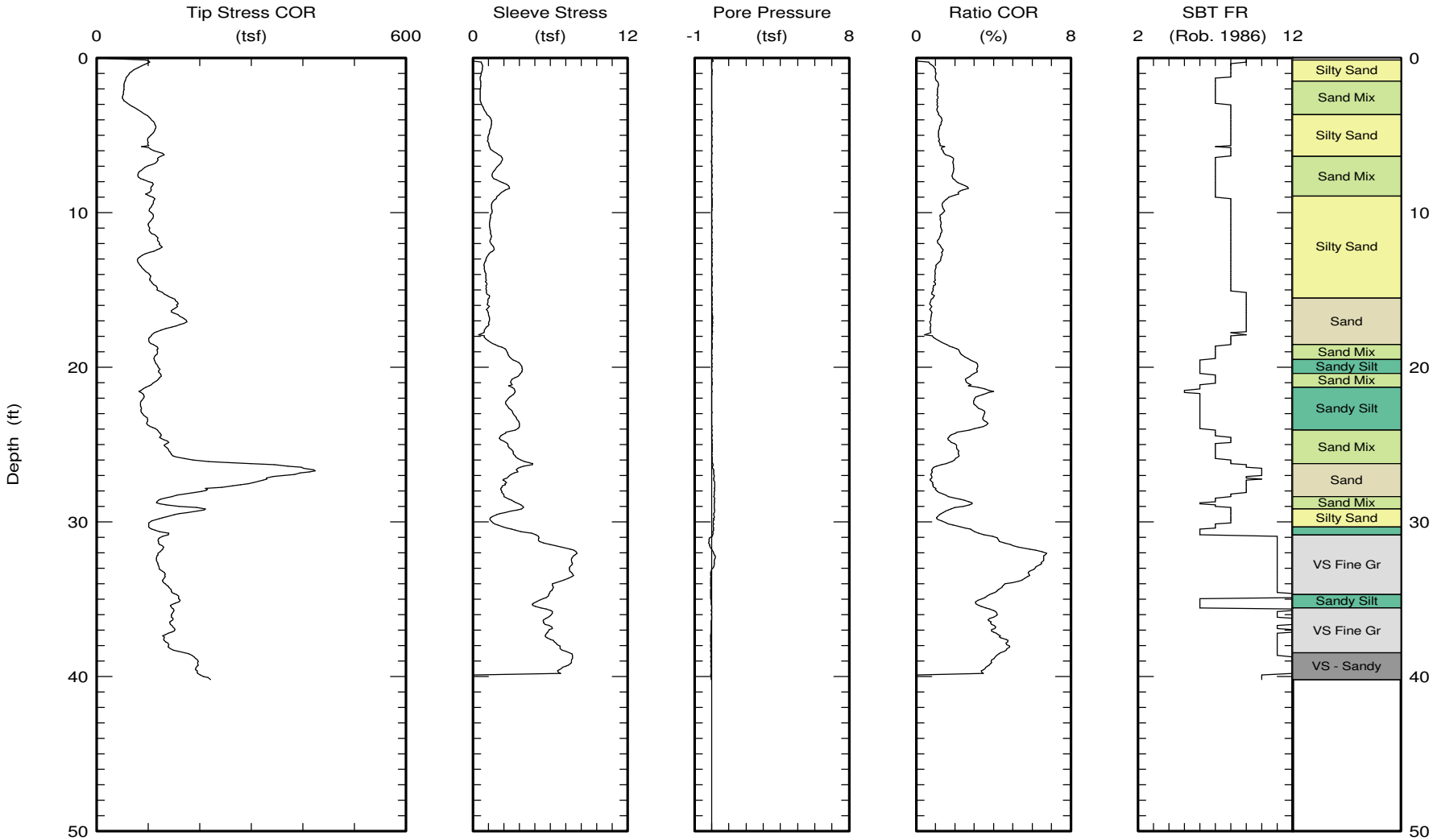
Maximum depth: 50.21 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-2
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



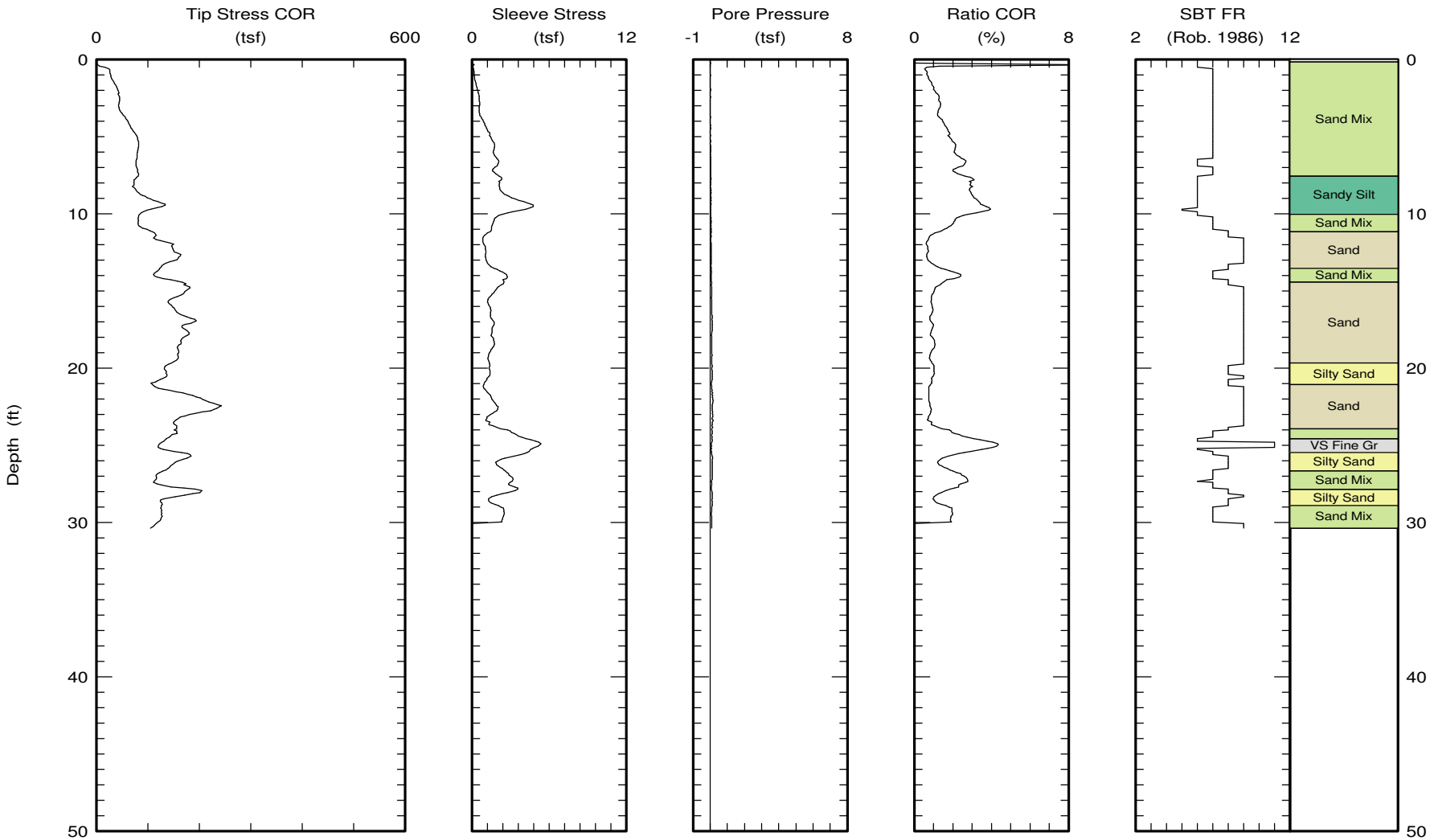
Maximum depth: 40.20 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-3
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



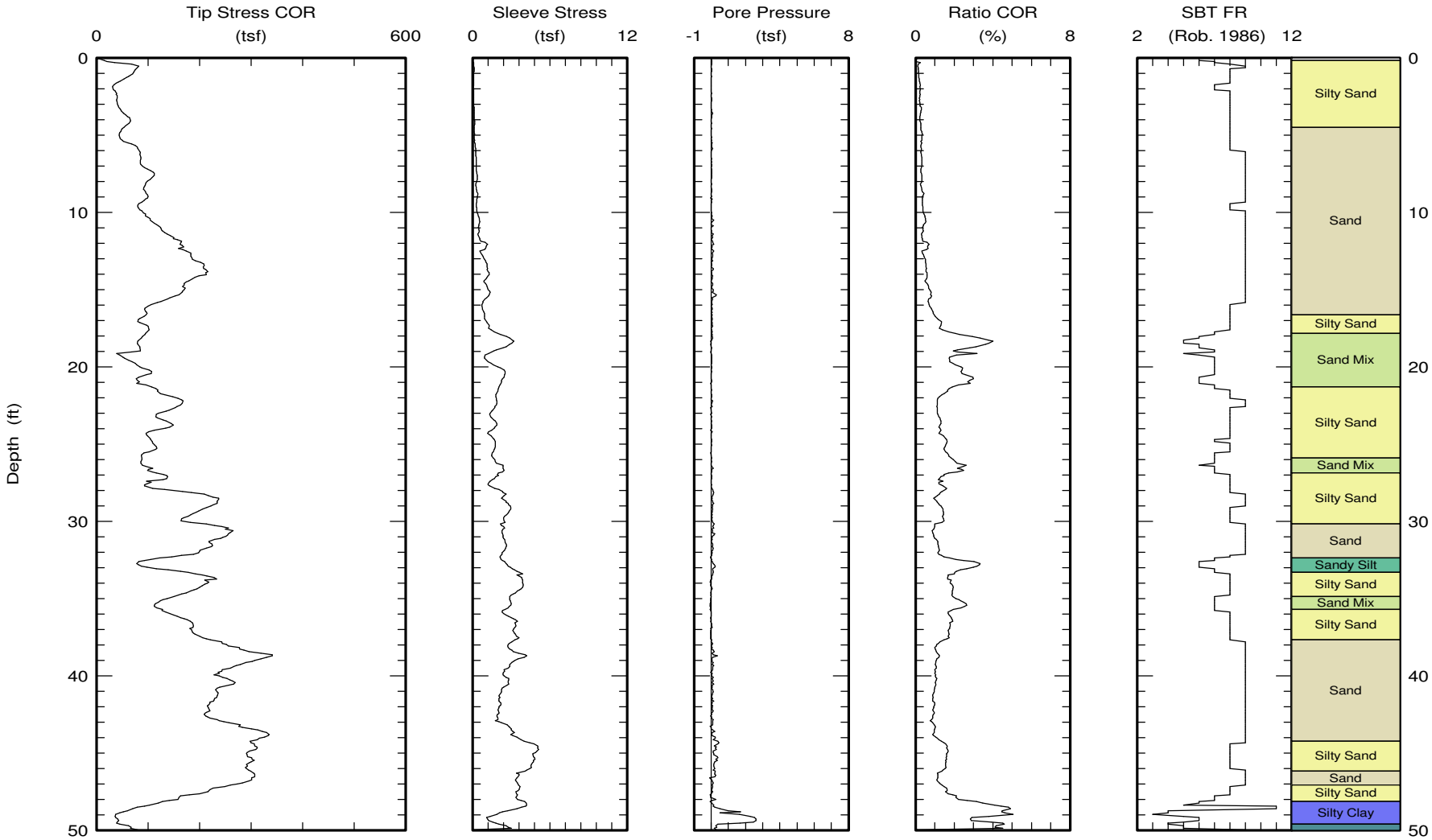
Maximum depth: 30.37 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-4
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



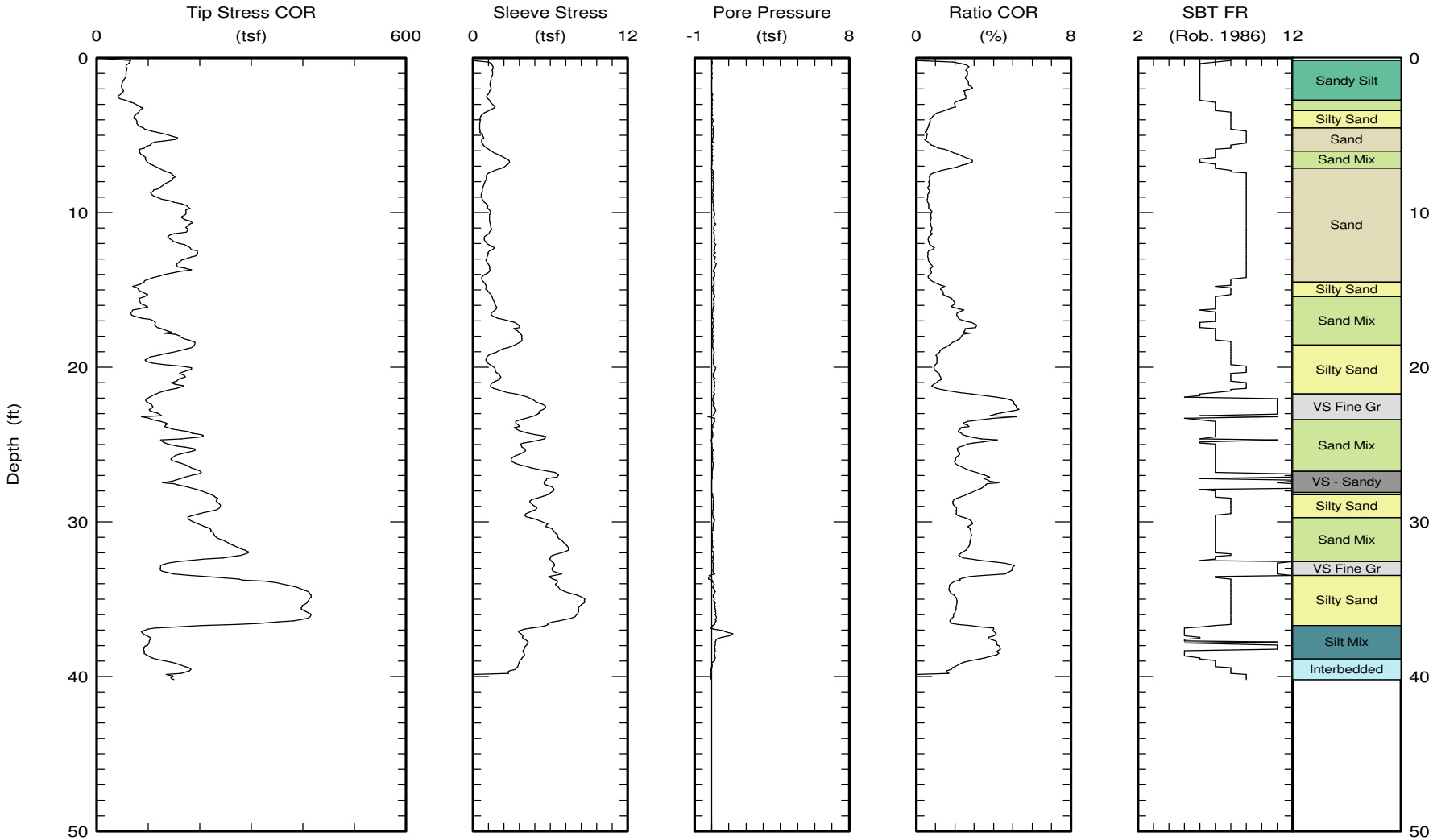
Maximum depth: 50.30 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-5
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



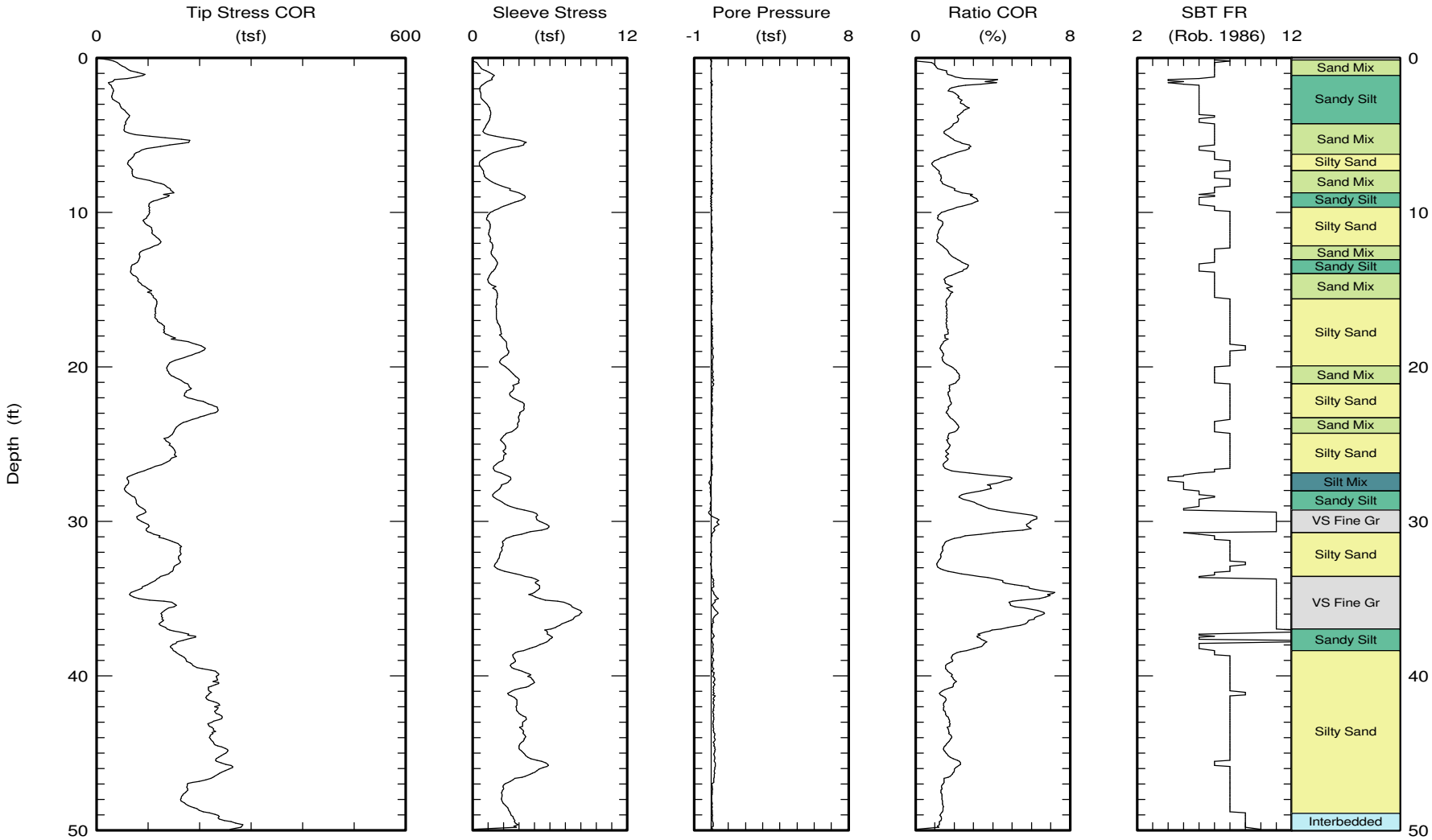
Maximum depth: 40.21 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-6
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



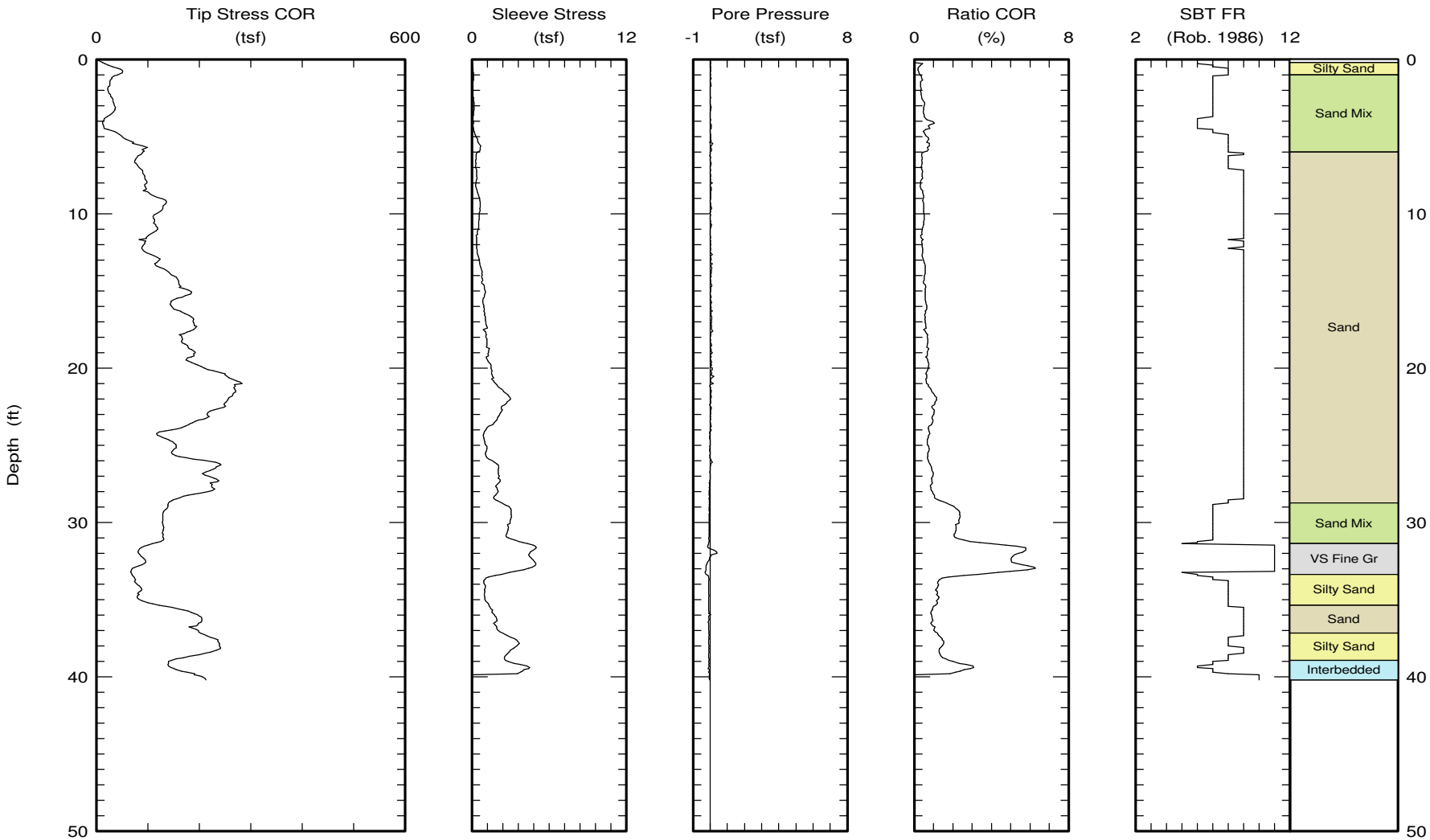
Maximum depth: 50.25 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-7
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



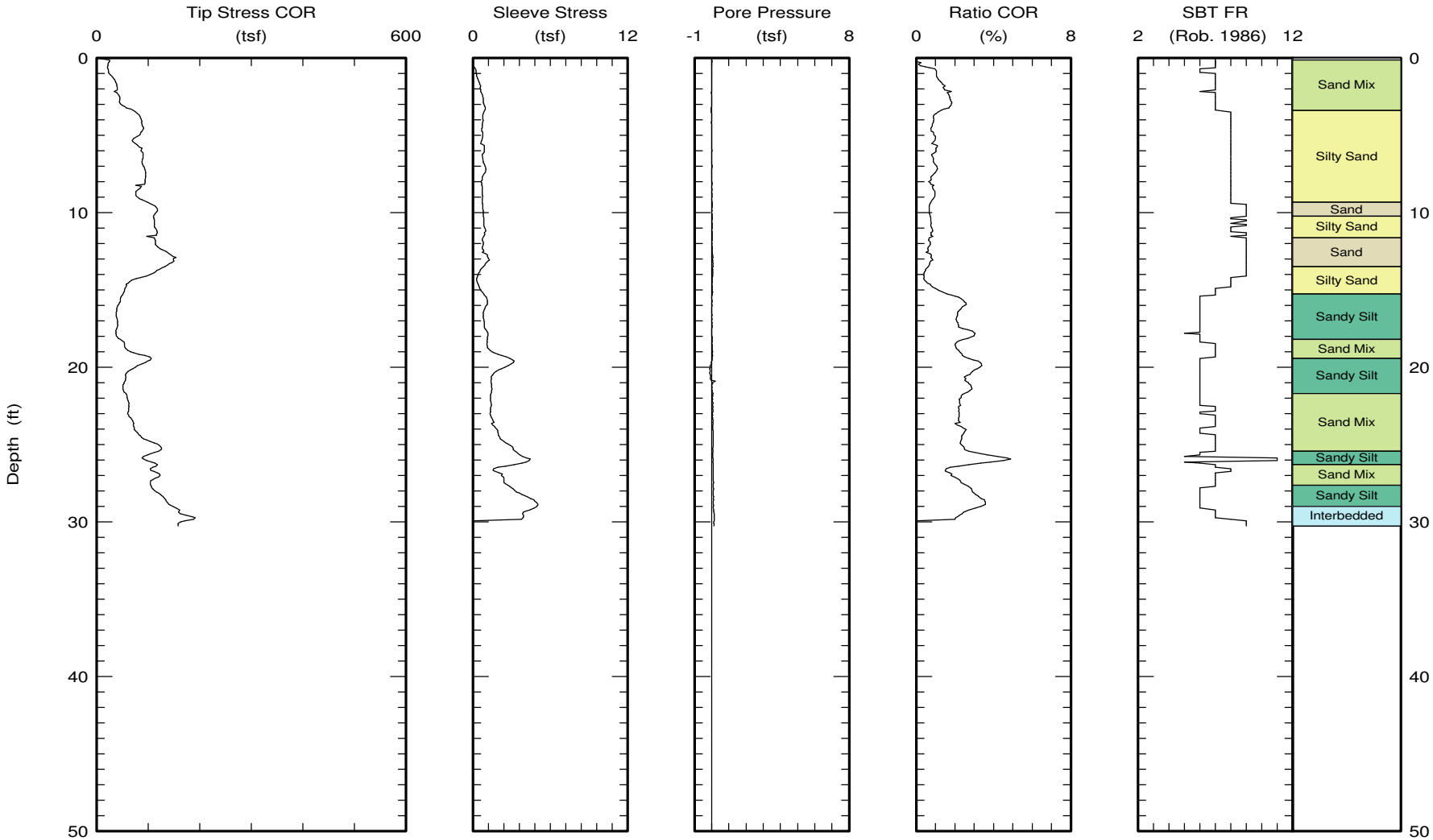
Maximum depth: 40.21 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-8
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



Maximum depth: 30.27 (ft)

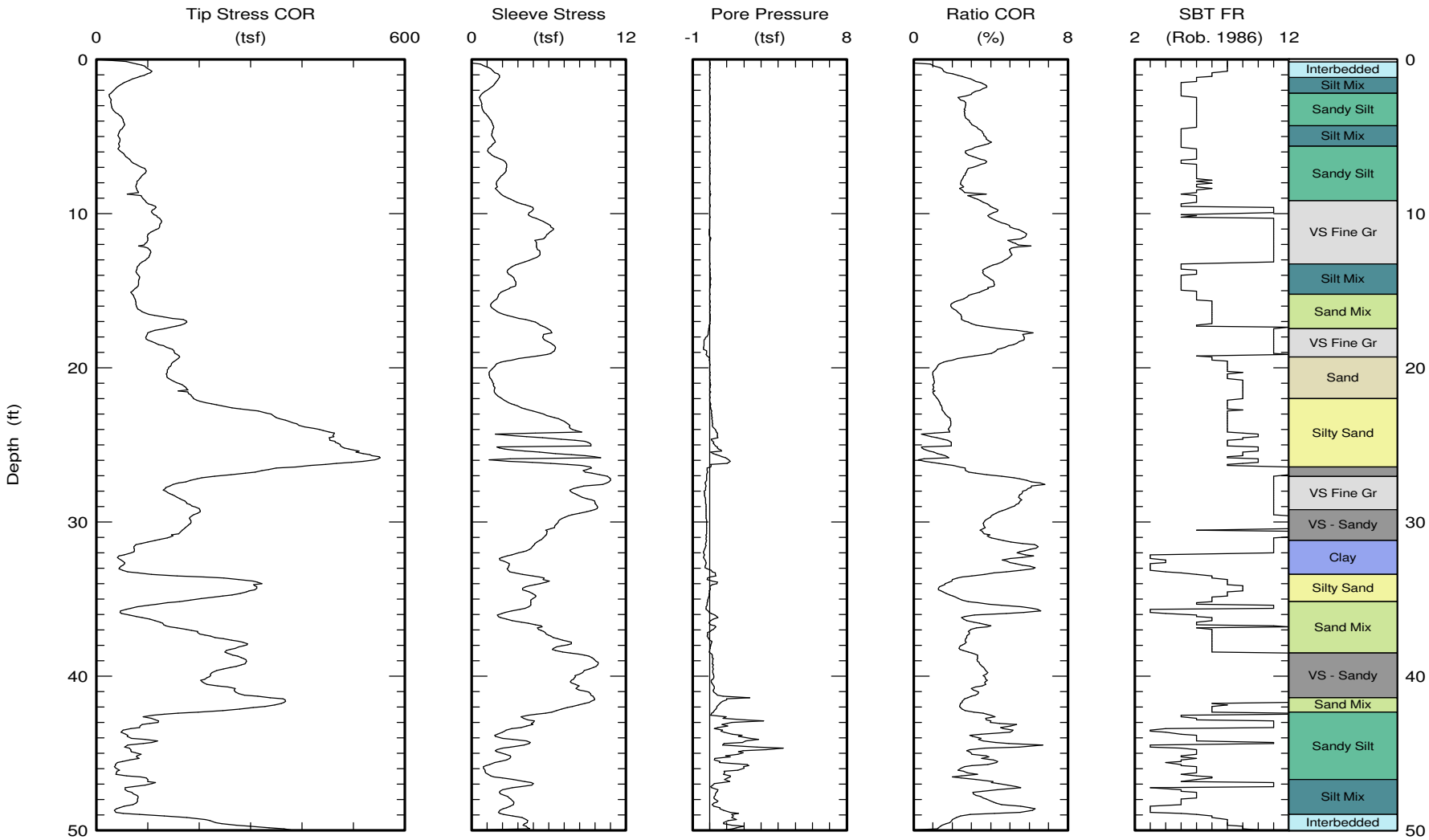
Test ID: CPT-8
File: Z01U0908C.ECP

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

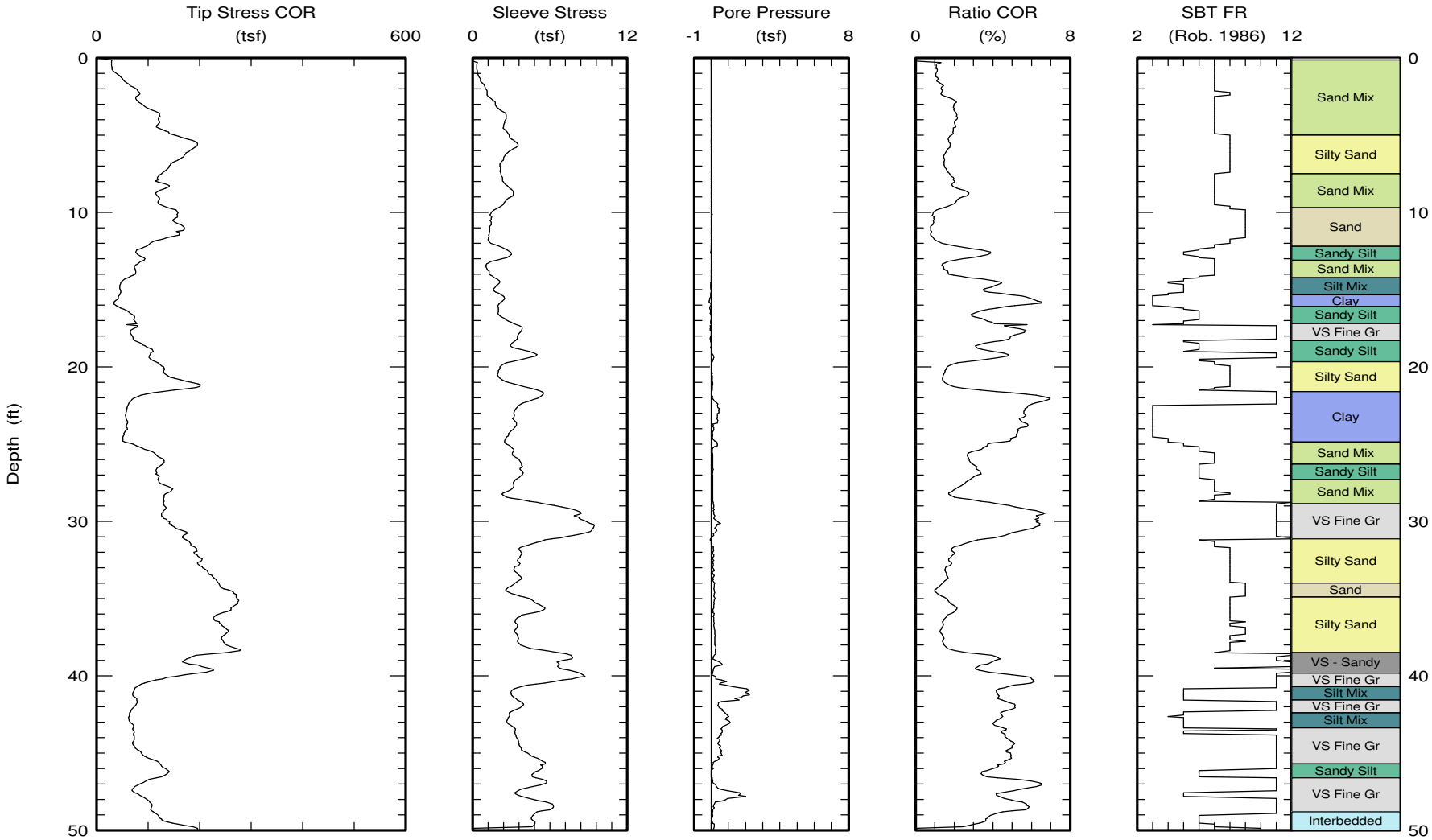
Date: 01/Jun/2009
Test ID: CPT-9
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



Maximum depth: 50.31 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com skehoe@msn.com	CPT Data 30 ton rig	Date: 01/Jun/2009 Test ID: CPT-10 Project: Lancaster
	Customer: Terracon Consultants, Inc. Job Site: 170th Street West & Avenue C	



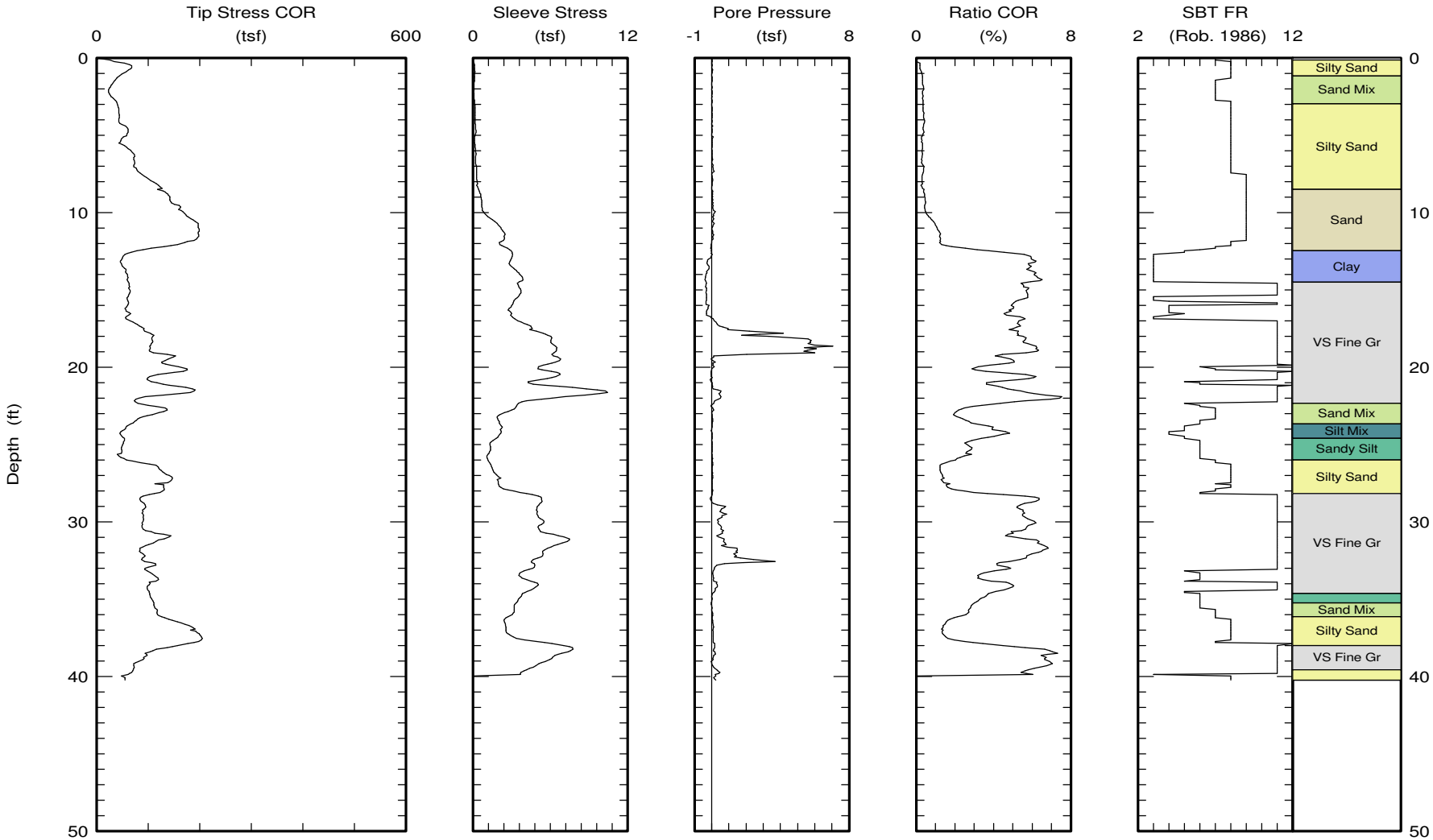
Maximum depth: 50.17 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 01/Jun/2009
Test ID: CPT-11
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



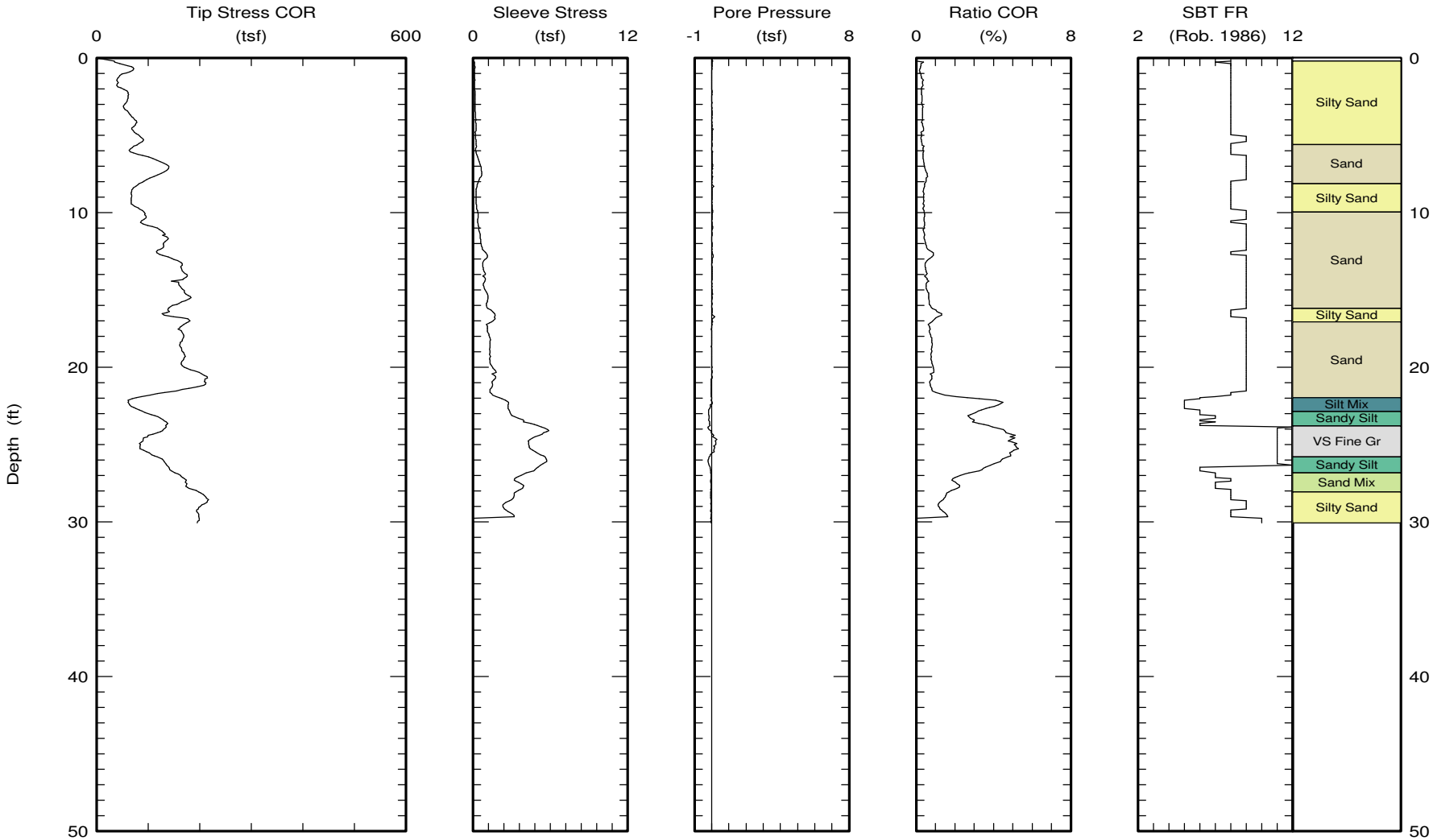
Maximum depth: 40.26 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-12
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



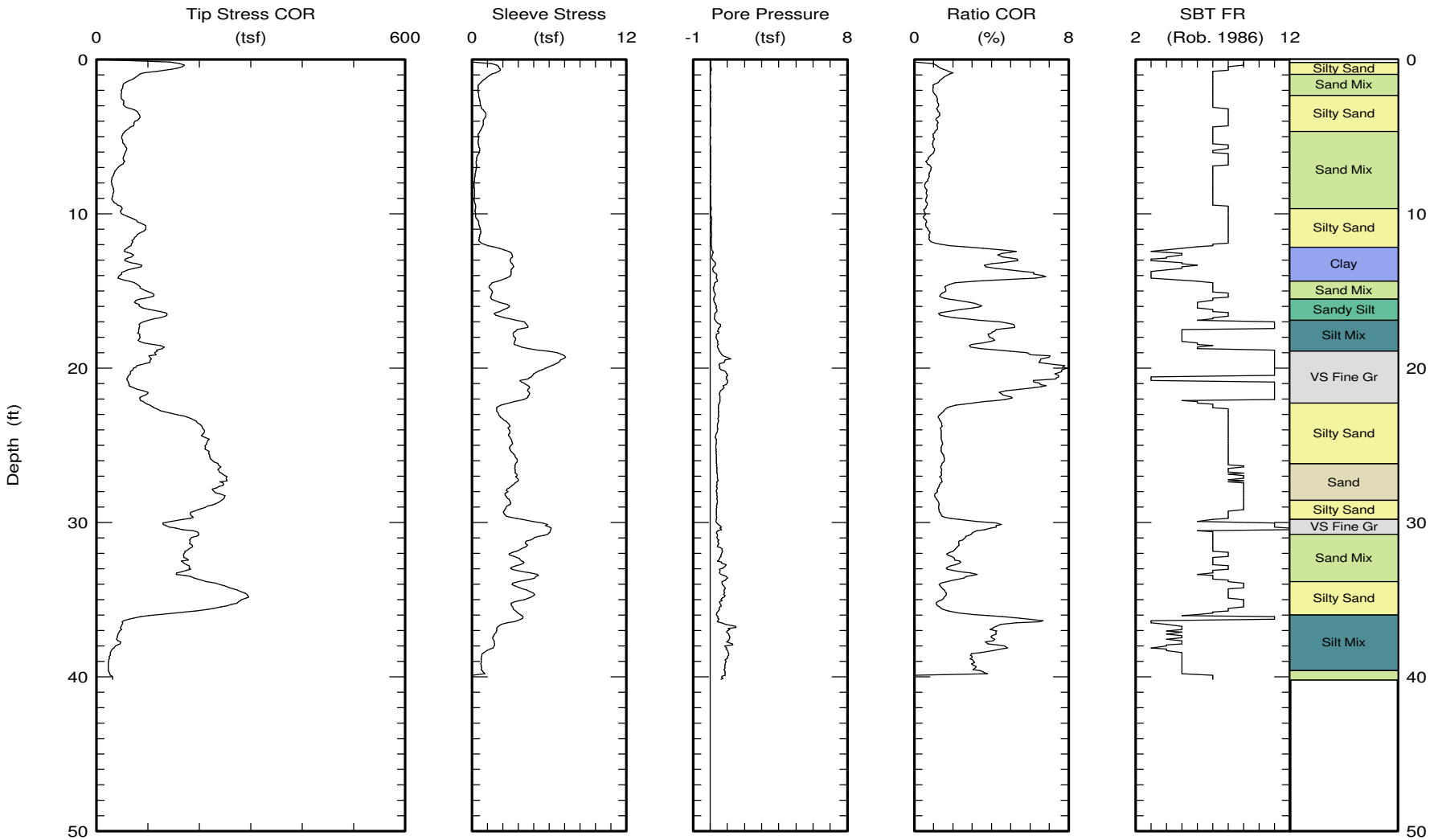
Maximum depth: 30.08 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-13
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



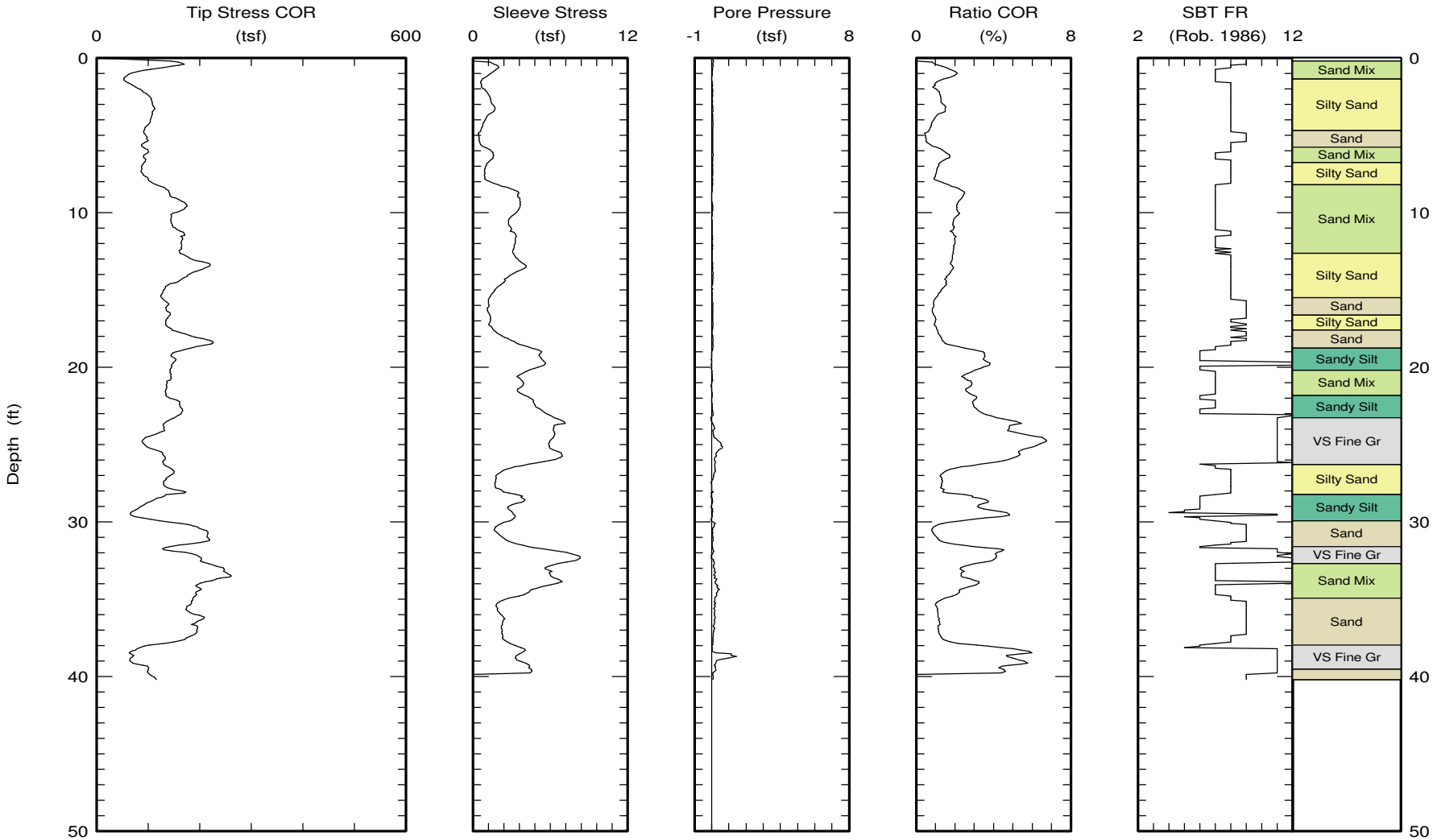
Maximum depth: 40.20 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-14
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



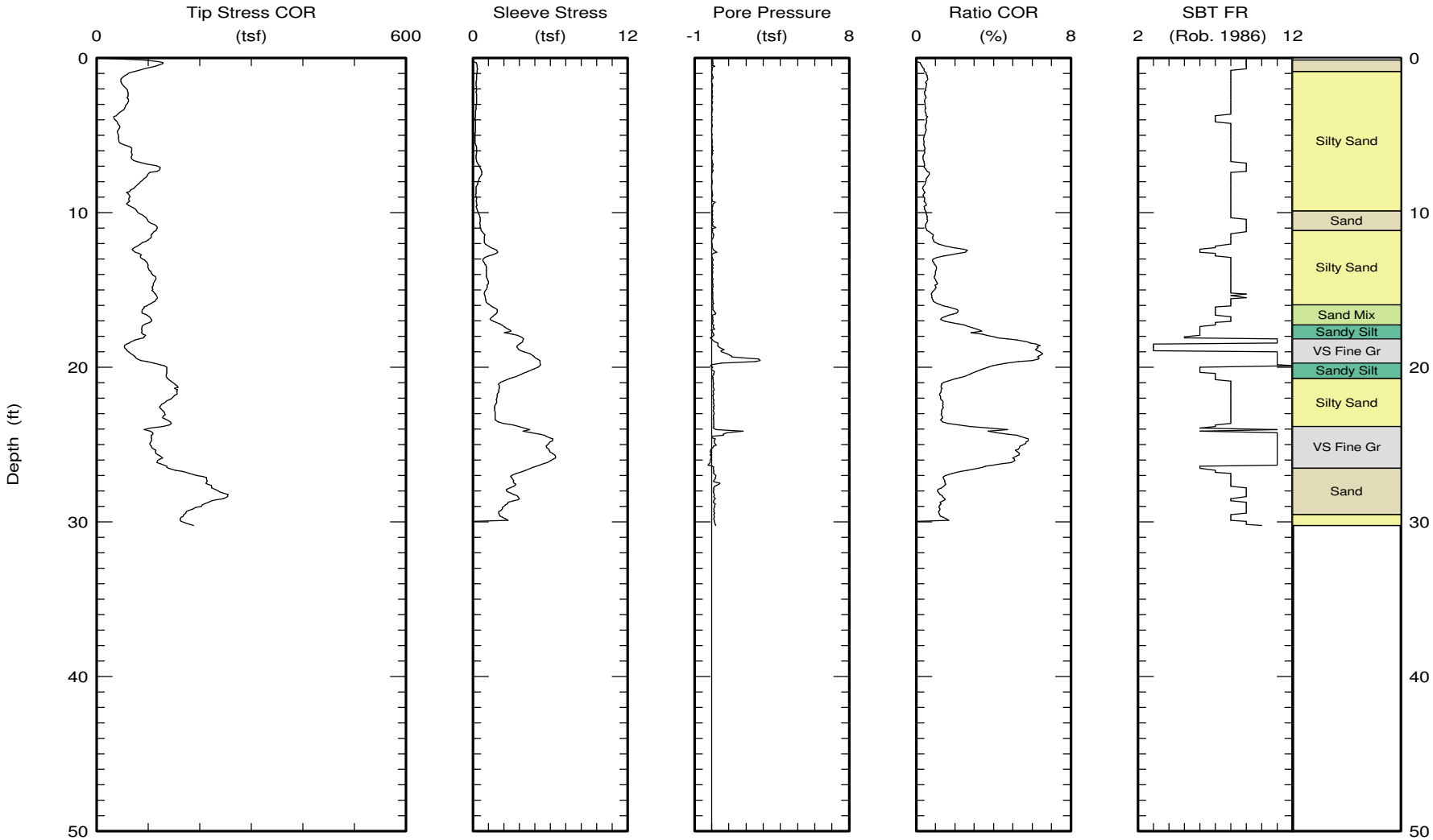
Maximum depth: 40.22 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-15
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



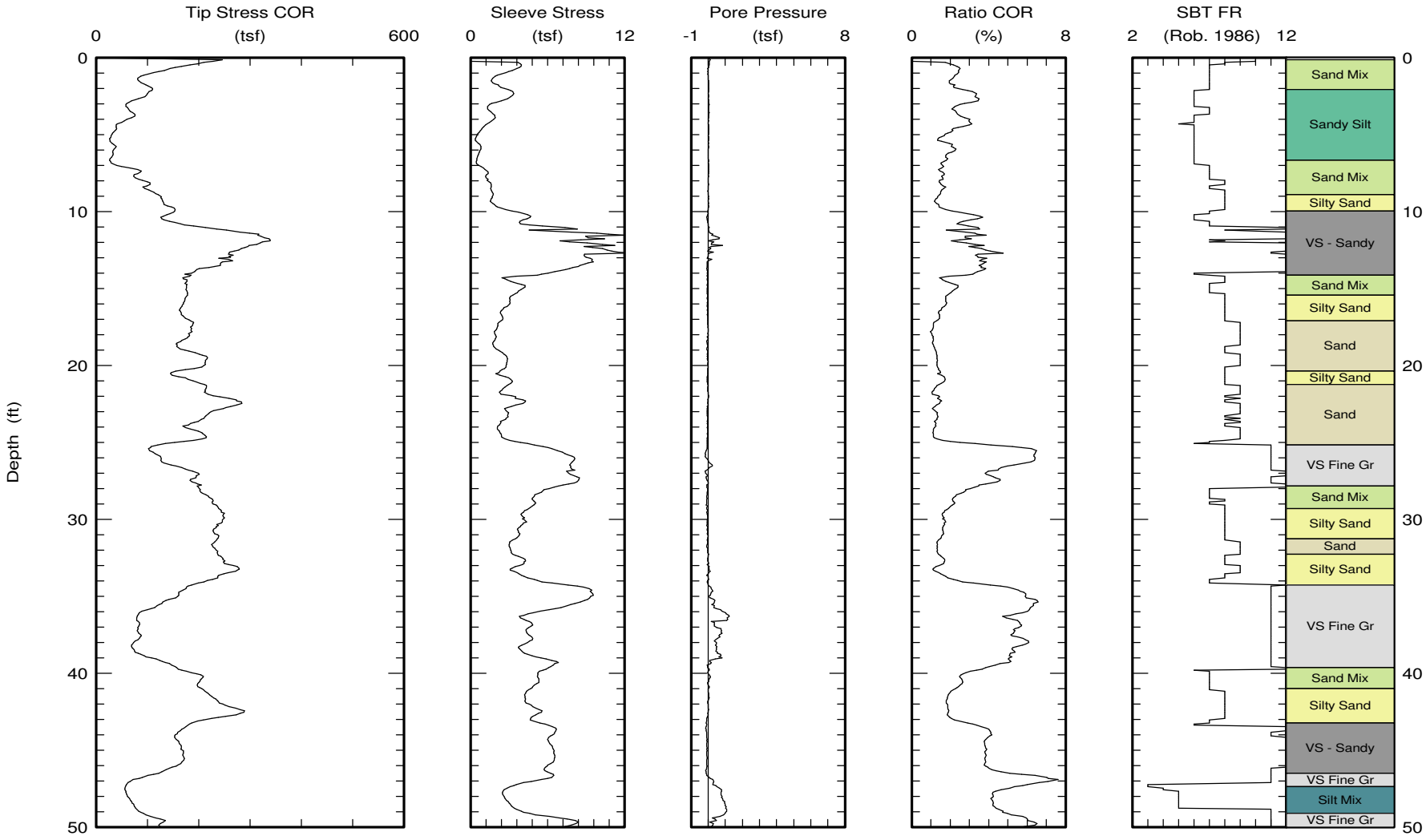
Maximum depth: 30.25 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-16
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



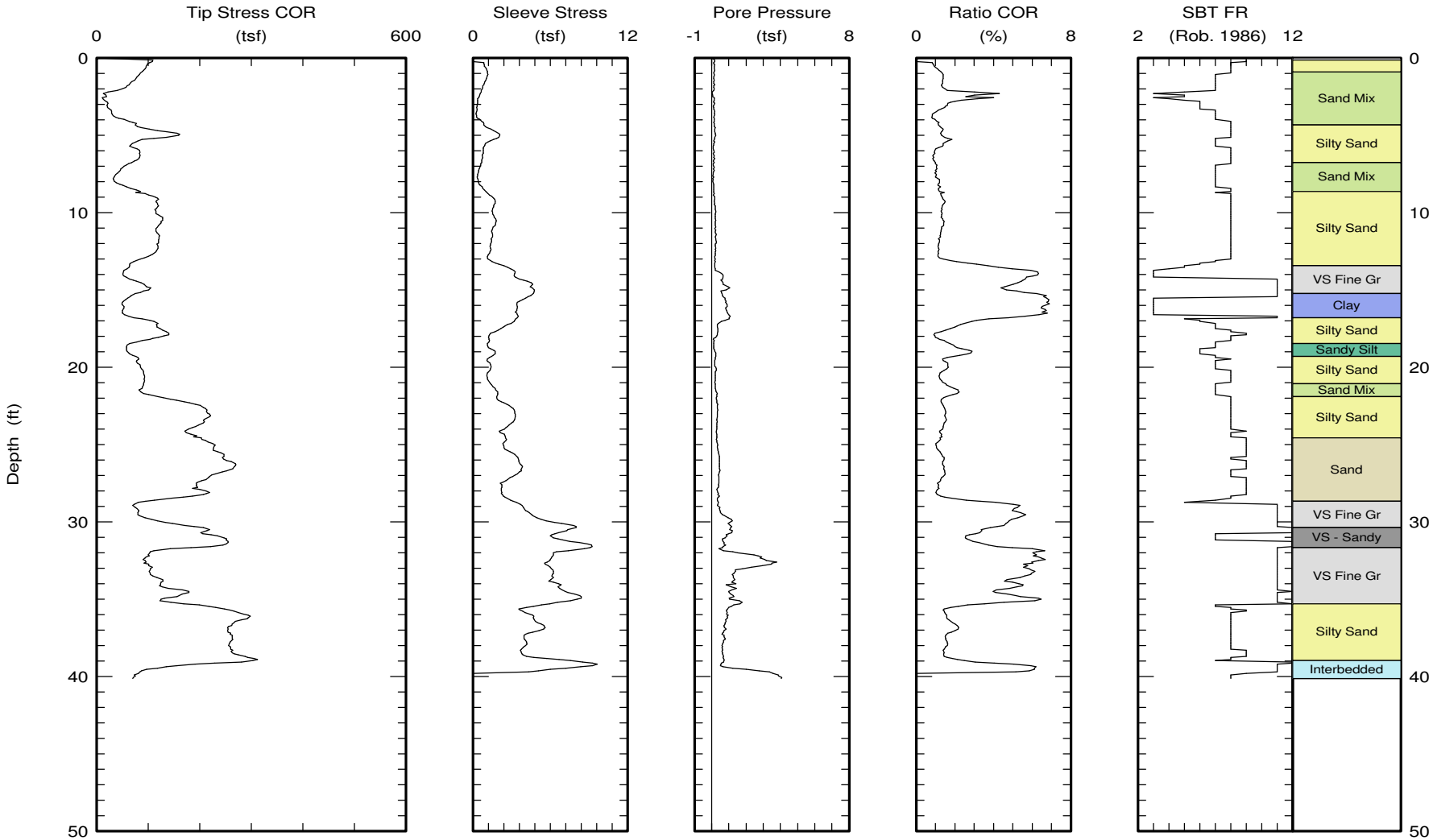
Maximum depth: 50.35 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-17
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



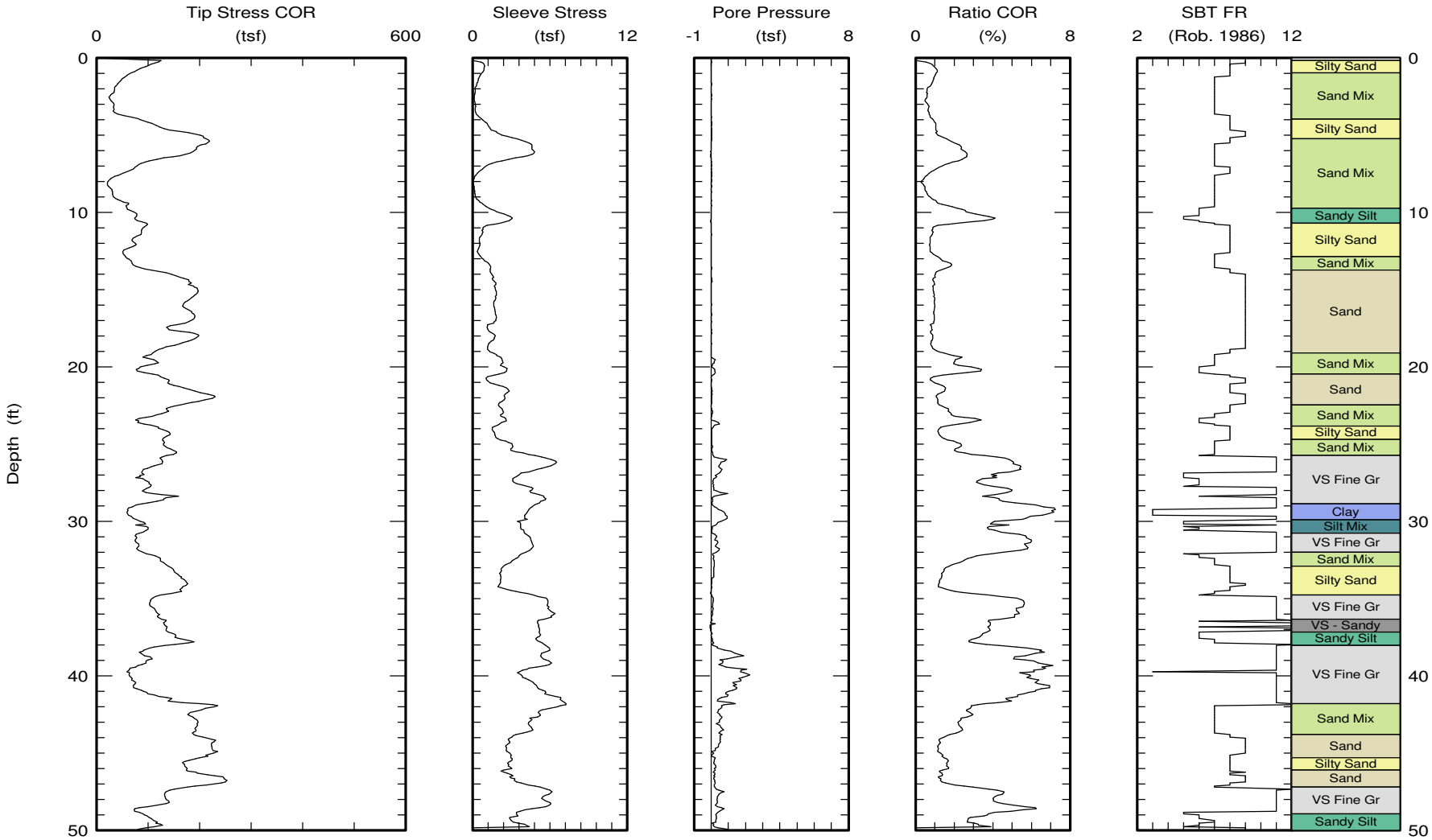
Maximum depth: 40.15 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
skehoe@msn.com

CPT Data
30 ton rig

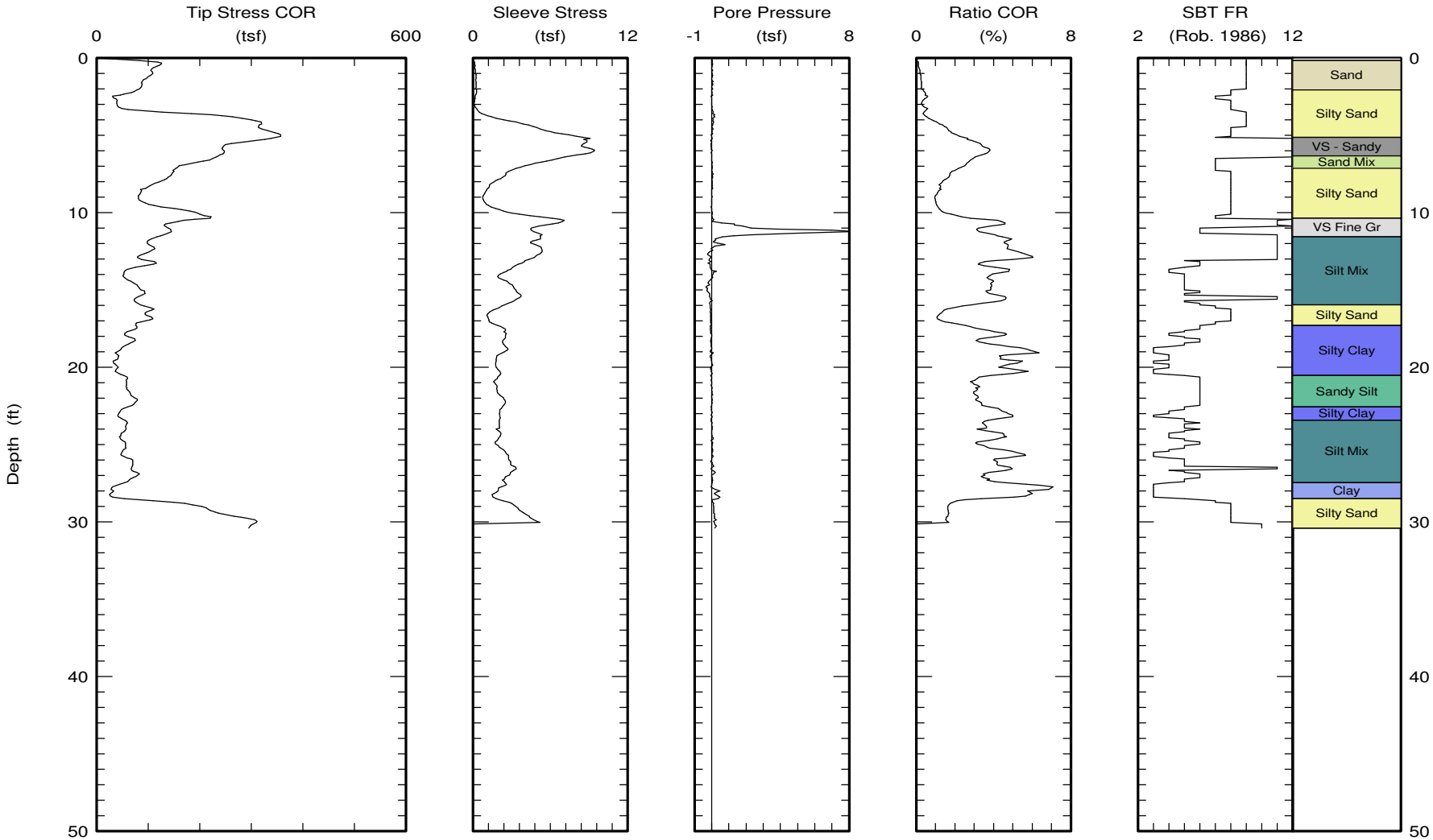
Date: 02/Jun/2009
Test ID: CPT-18
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



Maximum depth: 50.21 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com skehoe@msn.com	CPT Data 30 ton rig	Date: 02/Jun/2009 Test ID: CPT-19 Project: Lancaster
	Customer: Terracon Consultants, Inc. Job Site: 170th Street West & Avenue C	



Maximum depth: 30.41 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
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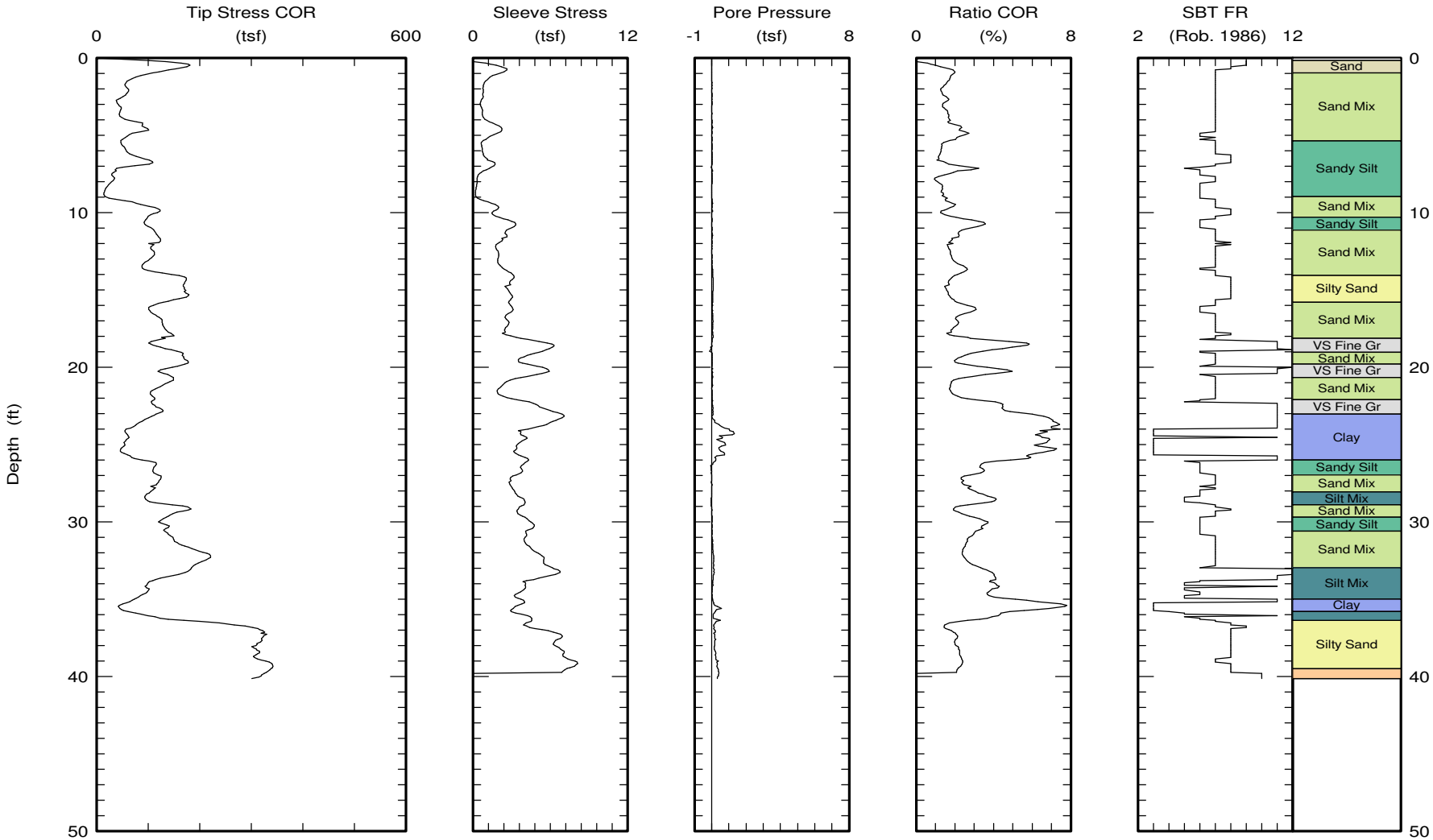
CPT Data
30 ton rig

Date: 02/Jun/2009
Test ID: CPT-20
Project: Lancaster

Customer: Terracon Consultants, Inc.
Job Site: 170th Street West & Avenue C



Maximum depth: 40.15 (ft)

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APPENDIX C
DRAINAGE CONCEPT REPORT

This appendix presents a copy of the Drainage Concept Report for the AV Solar Ranch One Project prepared by PSOMAS. This report supports the flood hazards assessment presented in Section 5.3 of this Draft EIR.

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION
SUBDIVISION PLAN CHECKING SECTION
DRAINAGE UNIT

TO: PSOMAS

DATE 01/27/10

Attention Erik Winata

REVIEW OF HYDROLOGY STUDY / DRAINAGE CONCEPT / SUSMP / LID

TR NO. 71035
SUBMITTAL DATE 12/21/09

We have reviewed your Hydrology Study / Drainage Concept / SUSMP / LID.

[X] The hydrology study has been approved for Area and Q only.

COMMENTS:

Please provided a CD with a scanned copy of the signed report and maps.

APPROVED BY

Chris Sheppard, P.E.
(626) 458-4921

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER M. SHEPPARD
C 70441
EXP. 9/30/10
CIVIL
STATE OF CALIFORNIA

PSOMAS

DRAINAGE CONCEPT / HYDROLOGY / LID / SUSMP

AV SOLAR RANCH ONE PROJECT

ANTELOPE VALLEY, CALIFORNIA

HYDROLOGY STUDY/LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: C.D. DATE: 1/27/10
RCE NO. 70191
CHECKED BY: DATE: 1/27/10
LAND DEVELOPMENT DIVISION
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

December 21, 2009

RECEIVED
DEC 2 2009
PROCESSING CENTER
LAND DEVELOPMENT DIVISION

Prepared for:

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353 Sacramento Street, Suite 2100
San Francisco, CA 94111
Telephone : (415) 935-2500

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Erik Winata
12/21/09

TABLE OF CONTENTS

SECTION PAGE No.

1. INTRODUCTION

1.1 SCOPE 1
1.2 SITE LOCATION 1
1.3 EXISTING CONDITIONS 2
1.3.1 WATERSHED CHARACTERISTICS 2
1.3.2 PRECIPITATION DATA 2
1.3.3 SOILS DATA 2
1.4 PROPOSED CONDITIONS 3

2. METHODOLOGY

2.1 GENERAL APPROACH 3
2.2 PROCEDURE 4

3. HYDROLOGY STUDY 5

3.1 PRE-DEVELOPMENT HYDROLOGY CONDITION 5
3.2 POST-DEVELOPMENT HYDROLOGY CONDITION 6
3.3 BASELINE HYDROLOGY COMPARISON PRIOR TO STORMWATER MITIGATION MEASURES 7
3.4 LA COUNTY LOW IMPACT DEVELOPMENT (LID) ANALYSIS 9
3.5 LA COUNTY STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP) 18
3.6 BASELINE HYDROLOGY COMPARISON WITH THE STORMWATER MITIGATION MEASURES 19

4. HYDRAULICS STUDY 22

4.1 HEC-RAS ANALYSIS 22
4.2 FLOOD PLAIN EVALUATION 22

5. CONCLUSIONS AND RECOMMENDATION 23

6. LIMITATIONS 23

7. REFERENCES 24

TABLE OF CONTENTS
(CONTINUED)

SECTION

APPENDICES

APPENDIX A: LACDPW ISOHYET/SOILS INFORMATION

APPENDIX B: HYDROLOGY EXHIBITS

APPENDIX C: FLUME AND CULVERT ANALYSIS

APPENDIX D: MODIFIED RATIONAL METHOD TC CALCULATIONS

APPENDIX E: HYDROLOGY ANALYSIS

APPENDIX F: SUSMP CALCULATIONS

APPENDIX G: LID CALCULATIONS

APPENDIX H: HEC-RAS PROFILES AND CROSS SECTIONS

APPENDIX I: FLOOD PLAIN EXHIBITS

APPENDIX J: PRELIMINARY HYDROLOGY & HYDRAULICS REPORT FOR FLOWS UPSTREAM OF CALIFORNIA AQUEDUCT

1. INTRODUCTION

1.1 Scope

The purpose of this Drainage Concept Report is to determine the flood plain limits, depths, and flow velocities for the Los Angeles County Capital Flood conditions to help identify the suitable location and foundation types for the proposed solar panel installations within the AV Solar Ranch One Project Site. This report will also provide comparison between the pre- and post-development conditions to determine the necessary mitigation steps to manage the increased stormwater run-off due to the increased impervious surface areas prior to leaving the project boundary.

1.2 Site Location

The proposed 2,100-acre AV Solar Ranch One project site is located along West Avenue D (State Route 138), approximately 15 miles northwest of downtown Lancaster, California in the unincorporated area of Los Angeles County. Most of the project site is undeveloped with only two paved roads, West Avenue D (SR 138) and 170th Street West. The existing terrain is generally sloping from the southwest to the northeast corner of the project site at approximately 1% slope. There are three incised channels identified on this site. Figure 1 below shows the vicinity map of the project site location.

Figure 1

1.3 Existing Conditions

1.3.1 Watershed Characteristics

The total watershed area tributary to the project site is approximately 23 square miles, in which the majority of the tributary area (approximately 16 square miles) drains towards the vicinity of Avenue D (SR 138) and 170th Street West, forming a deeply incised channel that flows northeasterly on the project site. This incised channel gradually diminished about mid-way through the project site, spreading the concentrated channel flow into a surface flow. For the purpose of this study, this incised channel will be referred to as the Drainage A.

Out of the 16 square miles tributary area to the Drainage A specified above, approximately 12 square miles are coming from the mountain area southwest of the project site that drains through a series of flume structures over the California Aqueduct towards the project site. A 4 square mile area north of the California Aqueduct flows towards the project site.

There is also another significant incised channel along the southern edge of the project site referred to as Broad Canyon Creek that receives stormwater run-off from an approximately 5 square mile area, in which about 3 square miles are located south of the California Aqueduct. For the purpose of this study, the Broad Canyon Creek will be referred to as Drainage C.

Several other watershed areas have been identified where offsite flows drain onto the project site, though only one of them has formed an incised channel in addition to the two incised channels mentioned above. This other incised channel will be referred to as Drainage B for the purpose of this study.

For the purpose of this drainage concept study, we will only be focusing on the watershed areas north of the California Aqueduct, assuming the flows generated by the watershed areas south of the California Aqueduct will be restricted by the flow capacities of the series of flumes and culverts crossing the Aqueduct.

1.3.2 Precipitation Data

The 50-year, 24-hour Isohyet information was based on the Los Angeles County Hydrology Manual, with values for the watershed areas north of the California Aqueduct ranging from 6.8 to 3.2 inches of rainfall. The project site Isohyet values are ranging from 4.2 to 3.2 inches of rainfall. Please refer to Appendix A for more details on these watershed areas as illustrated on the Los Angeles County Isohyet/Soils Maps.

1.3.3 Soils Data

The soil types for the watershed areas north of California Aqueduct for the most part were identified as Soil Classification Types 124 and 134, with a small portion identified as

Type 120. Most of the watershed areas north of the California Aqueduct were classified as a Debris Potential Area DPA-11. Please refer to Appendix A for more details on the soils data as illustrated on the Los Angeles County Isohyet/Soils Maps.

1.4 Proposed Conditions

The proposed project consists of constructing solar panels supported by concrete ballast or embedded foundations over the majority of the site, with approximately 10-acre area dedicated for sub-station and office/maintenance areas. There will be 30-foot wide compacted dirt roads constructed between blocks of solar panels for maintenance access. There are also areas designated for the proposed Substation, Office and Maintenance locations.

There will be infiltration trenches constructed in between the solar panels at every other row, spaced about 50 feet apart. Sections 3.4 and 3.5 of this report will discuss the infiltration trenches in more detail.

There are no improvements or capital flood protections being proposed along the incised channels. All proposed improvements will not encroach into the California Department of Fish and Game (CDFG) jurisdictional limits, which protect the jurisdictional channel.

As requested by Los Angeles County, a 100-foot wide and a 65-foot wide easements will be dedicated to Los Angeles County along Drainage A and Drainage C, respectively, for future flood control purposes. The easements are delineated on the Hydrology Exhibits in Appendix B.

A development setback is also shown parallel to the Los Angeles County easement along Drainage A, as specified in the EIR. The development setback is 100 feet from either side of the natural incised channel bank in Drainage A and reduced to 100 feet wide beyond the natural incised channel area. There will be no development within the development setback in Drainage A.

2. METHODOLOGY

2.1 General Approach

Drainage calculations follow the methodology used in the Los Angeles County Department of Public Works Hydrology Manual. The Modified Rational Method was used in this study to determine on-site flows.

For peak flow calculation, the *LACDPW TC (TC_calc_depth.xls, June2002)* program was used to calculate the time of concentration for each sub area. Then, the *WMS* computer program was used for the *Modified Rational Method* calculations and calculation of peak runoff rates and hydrographs. The TC calculations and WMS program output are provided in Appendices D and E, respectively. In accordance with LACDPW requirements, the 50-year burned, bulked storm event was used as the main design storm in the analysis.

2.2 Procedure

As described in the Hydrology Manual for Los Angeles County, discharge was computed using the following steps.

1. On-site drainage areas were determined by a review of the grades (see Hydrology Exhibits, Appendix B).

2. Rainfall data was determined using the LACDPW Isohyetal Maps for a 50-Year 24-Hour storm (See Appendix A). Reduction factors of 0.714 and 0.878 were used for the 10-Year and 25-Year storms, respectively.

3. Soils data was found for the project site. When it was feasible to do so, drainage areas were further separated by soil types for the purpose of performing hydrology calculations. In cases where no logical division of drainage areas occurred along soils boundaries, the dominant soil type prevailed. (See Hydrology Exhibit, Appendix B).

4. The Los Angeles County Department of Public Works TC computer program was used for Modified Rational Method calculations to find values for Time of Concentration and Intensity (see Appendices D and E).

5. Flows were calculated for each drainage area using

   $$Q = C.i.A$$

   Where:
   Q is the design runoff (cfs)
   C is the runoff coefficient
   I is the intensity (in/hr)
   A is the drainage area (ac)

6. Burned flows were calculated for each drainage area using

   $$\text{Burned Flow} = 0.83\ (0.677I^{-0.102}-1)\ (Q-A*I)+Q$$

   Where:
   Q is the design runoff (cfs)
   I is the intensity (in/hr)
   A is the drainage area (ac)

3. HYDROLOGY STUDY

3.1 Pre-Development Hydrology Condition

As previously mentioned, for the purpose of this drainage concept study, we will only consider the watershed areas north of the California Aqueduct, assuming the flows generated by the watershed areas upstream of the California Aqueduct will be restricted by the flow capacities of the series of flumes and culverts crossing the Aqueduct.

We have determined that only five of the flumes and one of the culverts contribute to the drainage flows into the project site. The flume and culvert locations are indicated on the Hydrology Map in Exhibit B. They are identified as Flume Nos. 1 through 5 and Culvert on the Exhibit.

The flume and culvert geometries and dimensions were established from the as-built drawings of the structures provided by the Department of Water Resources. The maximum flow capacities of each flume and culvert were calculated based on this information.

In order to determine the amount of flows that get into these flumes and culvert, we referred to the Preliminary Hydrology and Hydraulics Report for the project dated March 2009 prepared by RBF Consulting. The 100-year flows to each flume and culvert specified in the RBF report were divided by a factor of 1.122, based on the Multiplication Factor specified in the Los Angeles County Hydrology Manual, to obtain the estimated flows for the 50-year storm event.

For the Los Angeles County Capital Flood 50-year Burned and Bulked Condition, we have determined that all flows were restricted by the maximum flow capacity of the flumes and culvert, except for the flow into flume number 4. The flows into the flumes are ranging from 640 to 3,970 cfs and the flow into the culvert is determined to be 240 cfs. Please refer to Exhibit C for more detailed information on the flume and culvert analysis.

Since the WMS program does not allow us to specify point discharge into the model for the flows generated by the flumes and culvert, we have modeled dummy subareas that will produce similar flows as these flumes and culvert. The dummy subareas are subareas 1K, 32M, 42N, 76P, 108C, and 100B substituting the Flume Nos. 1 through 5 and the Culvert, respectively.

In addition to the flows calculated from the five flumes and culvert across the California Aqueduct, the flows generated by the watershed areas between the Aqueduct and the project site were calculated. There are 10 major watershed areas tributary to the project site, which was further subdivided into sub-areas of 40 acres or less for the purposes of the MODRAT model.

The flows leaving the project site indicated as confluence points on the Hydrology Maps in Exhibit B are ranging from 9.43 to 4,796.14 cfs for the Los Angeles County Capital Flood 50-year Burned and Bulked Condition. The majority of the flows are coming from the deep

incised channel in the middle of the project site (Drainage A), confluence point 184KU, and the Broad Canyon Creek (Drainage C) along the southerly edge of the project site, confluence point 165B (4,796.14 cfs and 2,016.54 cfs, respectively).

The Pre-Development Hydrology results for the Los Angeles County Capital Flood storm event are summarized in Table 1 below.

Table 1: Pre-Development Hydrology Summary – 50-Year

Sub-Areas	Confluence Point	Drainage Area (Acres)	50-Year Storm Event		
			Q_u (cfs)	Q_b (cfs)	Q_{bb} (cfs)
Basin A	Outlet 16A	289.30	15.36	26.70	27.37
Basin B	Outlet 6B	101.00	7.03	11.60	11.89
Basin C	Outlet 110CG	1,504.20	89.21	169.64	173.88
Basin H	Outlet 4H	58.50	4.35	9.20	9.43
Basin I	Outlet 63IJ	915.40	53.74	123.27	126.35
Basin K	Outlet 184KU	5,339.10	3,362.84	4,679.16	4,796.14
Basin V	Outlet 8V	143.10	10.35	21.95	22.50
Basin W	Outlet 73WZ	789.80	43.59	74.54	76.40
Basin 100A	Outlet 110A	89.30	7.57	13.61	13.95
Basin 100B	Outlet 165B	1,947.00	1,383.19	1,967.36	2,016.54

3.2 Post-Development Hydrology Condition

We have assumed that the proposed grading and solar panel installation on the project site will not significantly alter the on-site drainage patterns. Since there are no proposed improvements within the existing drainage channels and the flow lines and watershed boundaries for the post-development condition remain the same.

The imperviousness factor for post-development condition is determined by calculating the total impervious areas on a typical 12-acre sample block of solar panel installation area. Within this 12-acre area, we assumed a maximum panel configuration where there will be 7 rows of solar panels with 68 solar panels per row (34 solar panels on each side of the drive motor assembly); except for the row where there is an equipment pad, there are only 64 solar panels on that row. Refer to the Hydrology Exhibit in Appendix B for more information.

The impervious areas include the areas of the concrete foundations to support the solar panels and other electrical equipment, as well as a portion of the areas of the solar panels. For the purpose of determining the imperviousness factor, we assume that only 35% of the solar panel areas be counted as the effective impervious area, recognizing the fact that water can still get under the solar panels and infiltrate into the ground where there are no concrete foundations and that the solar panels will be at a tilted position most of the time to track the sun's position. The typical layout for the solar panels is shown on the Exhibit included in Appendix B of this report.

Based on the above analysis, we have determined an imperviousness factor of 0.10 to be applied to the watershed areas located within the project site for the post-development condition. On areas near the incised channels, where there are no proposed solar panels installed, the imperviousness factors are prorated. Additional impervious areas are also added to account for the Substation and the Office and Maintenance areas along with the paved access road leading to the building.

The flow rates for the Los Angeles County Capital Flood 50-year Burned and Bulked Condition at the confluence points range from 10.74 to 4,802.13 cfs for the post-development condition, prior to the implementation of the mitigation method discussed in Sections 3.4 and 3.5 of this report. The flows at the two major incised channels, points 184KU and 165B, are determined to be 4,802.13 cfs and 2,017.94 cfs, respectively.

The Post-Development Hydrology results for the Los Angeles County Capital Flood storm event, prior to the stormwater mitigation measures, are summarized in Table 2 below.

Table 2: Post-Development Hydrology Summary – 50-Year Prior to Stormwater Mitigation Measures

Sub-Areas	Confluence Point	Drainage Area (Acres)	50-Year Storm Event		
			Q_u (cfs)	Q_b (cfs)	Q_{bb} (cfs)
Basin A	Outlet 16A	289.30	20.65	31.46	32.25
Basin B	Outlet 6B	101.00	10.60	14.97	15.34
Basin C	Outlet 110CG	1,504.20	91.92	172.43	176.74
Basin H	Outlet 4H	58.50	5.73	10.48	10.74
Basin I	Outlet 63IJ	915.40	65.95	126.71	129.88
Basin K	Outlet 184KU	5,339.10	3,368.98	4,685.00	4,802.13
Basin V	Outlet 8V	143.10	13.89	25.17	25.80
Basin W	Outlet 73WZ	789.80	68.76	99.35	101.83
Basin 100A	Outlet 110A	89.30	13.12	18.76	19.23
Basin 100B	Outlet 165B	1,947.00	1,824.40	1,968.72	2,017.94

3.3 Baseline Hydrology Comparison Prior to Stormwater Mitigation Measures

There are ten major watershed areas tributary to the project site. Flows leaving the project site are indicated as confluence points shown on the Hydrology Maps in Appendix B.

Los Angeles County policies require that the increase of flow from the post-development condition be mitigated prior to leaving the project boundary so as not to impact the properties located downstream of the project site.

Due to the increased imperviousness on the project site, the flows are increased between 1.38 cfs and 25.43 cfs for the Capital Storm condition at the confluence points specified above. The biggest increase is at confluence point 73WZ for Basin W, where it has the biggest

proportion of impervious area. There are no changes in the tributary areas between the pre- and post-development conditions as the drainage pattern remain the same.

Table 3 below summarizes the Hydrology comparison between the pre- and post-development condition, prior to stormwater mitigation measures, for the Los Angeles County Capital Flood storm event at the confluence points as the flows are leaving the project boundary. Please refer to the Hydrology Maps and Peak Flow Calculations shown on Appendices B and D, respectively, for more details.

Table 3: Pre-Development vs. Post-Development Hydrology Comparison Summary Prior to Stormwater Mitigation Measures

Location	Storm Event	Q (cfs)			Total Tributary Area (acres)
		Pre-Dev. Condition	Post-Dev. Condition	Difference	
Basin A	50-Yr Clear	15.36	20.65	5.29	289.30
Outlet 16A	50-Yr Burned	26.70	31.46	4.76	
	50-Yr Burned/Bulked	27.37	32.25	4.88	
Basin B	50-Yr Clear	7.03	10.60	3.57	101.00
Outlet 6B	50-Yr Burned	11.60	14.97	3.37	
	50-Yr Burned/Bulked	11.89	15.34	3.45	
Basin C	50-Yr Clear	89.21	91.92	2.71	1,504.20
Outlet 110CG	50-Yr Burned	169.64	172.43	2.79	
	50-Yr Burned/Bulked	173.88	176.74	2.86	
Basin H	50-Yr Clear	4.35	5.73	1.38	58.50
Outlet 4H	50-Yr Burned	9.20	10.48	1.28	
	50-Yr Burned/Bulked	9.43	10.74	1.31	
Basin I	50-Yr Clear	53.74	65.95	12.21	915.40
Outlet 63IJ	50-Yr Burned	123.27	126.71	3.44	
	50-Yr Burned/Bulked	126.35	129.88	3.53	
Basin K	50-Yr Clear	3,362.84	3,368.98	6.14	5,339.10
Outlet 184KU	50-Yr Burned	4,679.16	4,685.00	5.84	
	50-Yr Burned/Bulked	4,796.14	4,802.13	5.99	
Basin V	50-Yr Clear	10.35	13.89	3.54	143.10
Outlet 8V	50-Yr Burned	21.95	25.17	3.22	
	50-Yr Burned/Bulked	22.50	25.80	3.30	

Location	Storm Event	Q (cfs)			Total Tributary Area (acres)
		Pre-Dev. Condition	Post-Dev. Condition	Difference	
Basin W	50-Yr Clear	43.59	68.76	25.17	789.80
Outlet 73WZ	50-Yr Burned	74.54	99.35	24.81	
	50-Yr Burned/Bulked	76.40	101.83	25.43	
Basin 100A	50-Yr Clear	7.57	13.12	5.55	89.30
Outlet 110A	50-Yr Burned	13.61	18.76	5.15	
	50-Yr Burned/Bulked	13.95	19.23	5.28	
Basin 100B	50-Yr Clear	1,383.19	1,384.56	1.37	1,947.00
Outlet 165B	50-Yr Burned	1,967.36	1,968.72	1.36	
	50-Yr Burned/Bulked	2,016.54	2,017.94	1.40	

3.4 Los Angeles County Low Impact Development (LID) Analysis

The proposed development for this project is also subjected to the Low Impact Development (LID) Standards by Los Angeles County.

LID is a new approach to managing rainfall and stormwater runoff. LID practices are designed to protect surface and groundwater quality, maintain the integrity of ecosystems, and preserve the physical integrity of receiving waters by controlling rainfall and stormwater runoff at or close to the source.

The site design practices specified below are going to be implemented at the project site in compliance with the LID requirements.

3.4.1 Conserving Natural Areas

The proposed development is designed to conform to the local watershed, since there are no major grading improvements on the project site that will significantly impact the drainage pattern for the post-development condition.

The project is also preserving sensitive environmental areas, by not encroaching into the CDFG jurisdictional limits, which protect the jurisdictional channel and drainages.

3.4.2 Minimizing Disturbances to Natural Drainage Pattern

As previously mentioned, the proposed development is designed to maintain the surface flow pattern of the pre-developed condition. The grading associated with this project will be designed to follow the existing pre-developed drainage pattern.

The existing incised channels within the project site will remain in their natural condition to avoid hydrologic impacts such as concentration of flow, scouring, and increased runoff to the downstream properties.

3.4.3 Directing Runoff from Impervious Areas to Infiltration Areas

The proposed development is incorporating a series of infiltration trenches behind every other row of solar panels in order to provide infiltration for the increased runoff caused by the increased impervious areas on the post-development condition. Stormwater runoff is diverted into these infiltration trenches, where the runoff will be stored and infiltrated into the ground.

Los Angeles County LID Standards require the excess volume (ΔV) determined by the hydrologic analysis to be infiltrated throughout the project site. The hydrology study is required to analyze the excess volumes of runoff produced from a 0.75-inch storm event prior to its discharge to a stormwater conveyance system as specified in the LID Manual.

Since the proposed solar panel layout installation will be similar for the whole project, we are taking a 12.12-acre sample area from the post-development condition with a concrete ballast foundation type for the purposes of this study to determine the necessary infiltration mechanism. The infiltration mechanism for this 12.12-acre sample area will then be applied throughout the project.

Based on the 12.12-acre sample area specified above, we have determined the required Los Angeles County mitigated volume (V_m) to be approximately 6,000 ft^3. In order to mitigate this runoff volume, we have designed a series of infiltration trenches measuring 8 feet wide by 15 feet long by 12 inches deep, with 4:1 side slopes, to be constructed behind every other row of solar panels, spaced 50 feet apart and staggered. Each of the infiltration trenches has a volume of 224 ft^3. The total volume provided by these infiltration trenches is 13,664 ft^3 per the 12.12-acre sample area. Stormwater runoff is diverted into these infiltration trenches. Since the trench has no outlet, runoff is stored within the trenches. Stormwater infiltrates into the soil where pollutants are removed through a combination of filtration, adsorption, and biological processes. The details for the infiltration trench sizes and locations are shown on the SUSMP Exhibit in Appendix B.

To comply with the hydromodification requirements under the Los Angeles County LID Manual, we have performed hydrologic analysis of the project pre- and post-development conditions under the 2-, 5-, 10-, 25-, 50-, SUSMP, and LID storm events. The results of the hydrologic analysis are listed in Tables 4 and 5 below.

Table 4: Hydrologic Analysis and ΔQ Summary between Pre- and Post-Development Condition (Prior to Mitigation Process)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing Q (cfs)	Prop. Q Pre-Mitigation (cfs)	ΔQ (cfs)	Highest ΔQ/Onsite Mitigation Area (cfs/ac)	Req. Mit. Q for 12.12-ac Sample Area (cfs)
Basin A Outlet 16A	289.30	91.70	Q_2	5.34	7.32	1.98	0.06	0.78
			Q_5	8.42	12.21	3.79		
			Q_{10}	10.53	15.23	4.70		
			Q_{25}	13.28	19.15	5.87		
			Q_{50}	15.36	20.65	5.29		
			Q_{50b}	26.70	31.46	4.76		
			Q_{50bb}	27.37	32.25	4.88		
			SUSMP	1.93	3.22	1.29		
			LID	1.93	3.22	1.29		
Basin B Outlet 6B	101.00	72.20	Q_2	2.60	3.92	1.32	0.05	0.60
			Q_5	4.01	6.04	2.03		
			Q_{10}	4.93	7.43	2.50		
			Q_{25}	6.40	9.73	3.33		
			Q_{50}	7.03	10.60	3.57		
			Q_{50b}	11.60	14.97	3.37		
			Q_{50bb}	11.89	15.34	3.45		
			SUSMP	1.52	2.53	1.01		
			LID	1.52	2.53	1.01		
Basin C Outlet 110CG	1,504.20	238.00	Q_2	32.09	31.34	-0.75	0.01	0.17
			Q_5	48.07	49.47	1.40		
			Q_{10}	60.50	62.30	1.80		
			Q_{25}	76.64	78.96	2.32		
			Q_{50}	89.21	91.92	2.71		
			Q_{50b}	169.64	172.43	2.79		
			Q_{50bb}	173.88	176.74	2.86		
			SUSMP	5.01	8.35	3.34		
			LID	5.01	8.35	3.34		

Table 4: Hydrologic Analysis and ΔQ Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing Q (cfs)	Prop. Q Pre-Mitigation (cfs)	ΔQ (cfs)	Highest ΔQ/Onsite Mitigation Area (cfs/ac)	Req. Mit. Q for 12.12-ac Sample Area (cfs)
Basin H Outlet 4H	58.50	29.30	Q_2	1.65	2.12	0.47	0.05	0.57
			Q_5	2.50	3.26	0.76		
			Q_{10}	3.06	4.02	0.96		
			Q_{25}	3.80	5.00	1.20		
			Q_{50}	4.35	5.73	1.38		
			Q_{50b}	9.20	10.48	1.28		
			Q_{50bb}	9.43	10.74	1.31		
			SUSMP	0.62	1.03	0.41		
			LID	0.62	1.03	0.41		
Basin I Outlet 63IJ	915.40	285.50	Q_2	17.12	22.57	5.45	0.05	0.58
			Q_5	27.23	35.90	8.67		
			Q_{10}	34.35	45.04	10.69		
			Q_{25}	43.39	56.95	13.56		
			Q_{50}	53.74	65.95	12.21		
			Q_{50b}	123.27	126.71	3.44		
			Q_{50bb}	126.35	129.88	3.53		
			SUSMP	6.01	10.01	4.00		
			LID	6.01	10.01	4.00		
Basin K Outlet 184KU	5,339.10	554.30	Q_2	1,294.86	1,300.56	5.70	0.03	0.34
			Q_5	2,102.37	2,111.89	9.52		
			Q_{10}	2,661.09	2,673.80	12.71		
			Q_{25}	3,061.48	3,076.82	15.34		
			Q_{50}	3,362.84	3,368.98	6.14		
			Q_{50b}	4,679.16	4,685.00	5.84		
			Q_{50bb}	4,796.14	4,802.13	5.99		
			SUSMP	11.66	19.44	7.77		
			LID	11.66	19.44	7.77		

Table 4: Hydrologic Analysis and ΔQ Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing Q (cfs)	Prop. Q Pre-Mitigation (cfs)	ΔQ (cfs)	Highest ΔQ/Onsite Mitigation Area (cfs/ac)	Req. Mit. Q for 12.12-ac Sample Area (cfs)
Basin V Outlet 8V	143.10	94.10	Q_2	3.78	5.09	1.31	0.04	0.46
			Q_5	5.86	7.87	2.01		
			Q_{10}	7.22	9.70	2.48		
			Q_{25}	9.02	12.11	3.09		
			Q_{50}	10.35	13.89	3.54		
			Q_{50b}	21.95	25.17	3.22		
			Q_{50bb}	22.50	25.80	3.30		
			SUSMP	1.98	3.30	1.32		
			LID	1.98	3.30	1.32		
Basin W Outlet 73WZ	789.80	520.60	Q_2	14.77	23.56	8.79	0.05	0.59
			Q_5	24.77	37.36	12.59		
			Q_{10}	36.03	46.84	10.81		
			Q_{25}	37.56	59.26	21.70		
			Q_{50}	43.59	68.76	25.17		
			Q_{50b}	74.54	99.35	24.81		
			Q_{50bb}	76.40	101.83	25.43		
			SUSMP	10.95	18.26	7.30		
			LID	10.95	18.26	7.30		
Basin 100A Outlet 110A	89.30	84.70	Q_2	2.74	4.73	1.99	0.07	0.79
			Q_5	4.25	7.31	3.06		
			Q_{10}	5.26	9.05	3.79		
			Q_{25}	6.56	11.26	4.70		
			Q_{50}	7.57	13.12	5.55		
			Q_{50b}	13.61	18.76	5.15		
			Q_{50bb}	13.95	19.23	5.28		
			SUSMP	1.78	2.97	1.19		
			LID	1.78	2.97	1.19		

Table 4: Hydrologic Analysis and ΔQ Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing Q (cfs)	Prop. Q Pre-Mitigation (cfs)	ΔQ (cfs)	Highest ΔQ/Onsite Mitigation Area (cfs/ac)	Req. Mit. Q for 12.12-ac Sample Area (cfs)
Basin 100B Outlet 165B	1,947.00	84.40	Q_2	481.69	482.23	0.54	0.06	0.75
			Q_5	742.79	747.20	4.41		
			Q_{10}	924.81	930.00	5.19		
			Q_{25}	1,164.46	1,167.50	3.04		
			Q_{50}	1,383.19	1,384.56	1.37		
			Q_{50b}	1,967.36	1,968.72	1.36		
			Q_{50bb}	2,016.54	2,017.94	1.40		
			SUSMP	1.78	2.96	1.18		
			LID	1.78	2.96	1.18		

Table 5: Hydrologic Analysis and ΔV Summary between Pre- and Post-Development Condition (Prior to Mitigation Process)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing V (ac-ft)	Prop. V Pre-Mitigation (ac-ft)	ΔV (cfs)	Highest ΔV/Onsite Mitigation Area (ac-ft/ac)	Req. Mit. V for 12.12-ac Sample Area (ft^3)
Basin A Outlet 16A	289.30	91.70	Q_2	3.43	4.18	0.75	0.02	12,600
			Q_5	5.19	6.67	1.48		
			Q_{10}	6.35	8.16	1.81		
			Q_{25}	7.82	10.05	2.23		
			Q_{50}	8.91	10.85	1.94		
			Q_{50b}	11.21	13.07	1.86		
			Q_{50bb}	11.49	13.40	1.91		
			SUSMP	0.62	1.03	0.41		
			LID	0.62	1.03	0.41		

Table 5: Hydrologic Analysis and ΔV Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing V (ac-ft)	Prop. V Pre-Mitigation (ac-ft)	ΔV (cfs)	Highest ΔV/Onsite Mitigation Area (ac-ft/ac)	Req. Mit. V for 12.12-ac Sample Area (ft^3)
Basin B Outlet 6B	101.00	72.20	Q_2	1.04	1.68	0.64	0.02	10,600
			Q_5	1.70	2.54	0.84		
			Q_{10}	2.07	3.09	1.02		
			Q_{25}	2.74	4.13	1.39		
			Q_{50}	2.90	4.34	1.44		
			Q_{50b}	3.48	4.88	1.40		
			Q_{50bb}	3.56	5.00	1.44		
			SUSMP	0.49	0.81	0.32		
			LID	0.49	0.81	0.32		
Basin C Outlet 110CG	1,504.20	238.00	Q_2	22.42	23.18	0.76	0.02	9,900
			Q_5	31.79	34.48	2.69		
			Q_{10}	39.16	42.34	3.19		
			Q_{25}	48.45	52.32	3.87		
			Q_{50}	55.52	59.95	4.43		
			Q_{50b}	72.51	76.81	4.30		
			Q_{50bb}	74.32	78.73	4.41		
			SUSMP	1.61	2.68	1.07		
			LID	1.61	2.68	1.07		
Basin H Outlet 4H	58.50	29.30	Q_2	0.55	0.85	0.30	0.02	9,800
			Q_5	0.94	1.29	0.36		
			Q_{10}	1.20	1.58	0.38		
			Q_{25}	1.47	1.94	0.47		
			Q_{50}	1.67	2.21	0.54		
			Q_{50b}	2.23	2.74	0.51		
			Q_{50bb}	2.28	2.81	0.53		
			SUSMP	0.20	0.33	0.13		
			LID	0.20	0.33	0.13		

Table 5: Hydrologic Analysis and ΔV Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing V (ac-ft)	Prop. V Pre-Mitigation (ac-ft)	ΔV (cfs)	Highest ΔV/Onsite Mitigation Area (ac-ft/ac)	Req. Mit. V for 12.12-ac Sample Area (ft^3)
Basin I Outlet 63IJ	915.40	285.50	Q_2	12.39	15.58	3.19	0.03	15,000*
			Q_5	18.99	23.81	4.82		
			Q_{10}	23.36	29.23	5.87		
			Q_{25}	28.83	36.08	7.25		
			Q_{50}	33.33	41.42	8.09		
			Q_{50b}	48.03	55.82	7.79		
			Q_{50bb}	49.23	57.21	7.98		
			SUSMP	1.93	3.21	1.28		
			LID	1.93	3.21	1.28		
Basin K Outlet 184KU	5,339.10	554.30	Q_2	329.54	333.42	3.89	0.02	8,300
			Q_5	502.03	507.82	5.78		
			Q_{10}	616.50	623.49	6.99		
			Q_{25}	675.18	683.81	8.63		
			Q_{50}	706.57	710.54	3.97		
			Q_{50b}	832.85	836.64	3.79		
			Q_{50bb}	853.67	857.55	3.88		
			SUSMP	3.74	6.24	2.49		
			LID	3.74	6.24	2.49		
Basin V Outlet 8V	143.10	94.10	Q_2	1.49	2.10	0.61	0.01	7,600
			Q_5	2.37	3.16	0.79		
			Q_{10}	2.89	3.85	0.96		
			Q_{25}	3.56	4.75	1.19		
			Q_{50}	4.05	5.40	1.35		
			Q_{50b}	5.38	6.67	1.29		
			Q_{50bb}	5.51	6.84	1.33		
			SUSMP	0.64	1.06	0.42		
			LID	0.64	1.06	0.42		

* Mitigation for Basin I to be provided by combination of Infiltration Trenches and Infiltration Basins

Table 5: Hydrologic Analysis and ΔV Summary between Pre- and Post-Development Condition (Prior to Mitigation Process) (Continued)

Basin Name/ Confluence Point	Basin Area (acres)	Onsite Mitigation Area (acres)	Storm Event	Existing V (ac-ft)	Prop. V Pre-Mitigation (ac-ft)	ΔV (cfs)	Highest ΔV/Onsite Mitigation Area (ac-ft/ac)	Req. Mit. V for 12.12-ac Sample Area (ft^3)
Basin W Outlet 73WZ	789.80	520.60	Q_2	8.91	13.66	4.74	0.02	11,000
			Q_5	14.79	20.92	6.13		
			Q_{10}	21.17	25.62	4.45		
			Q_{25}	22.19	31.68	9.49		
			Q_{50}	25.39	36.20	10.81		
			Q_{50b}	32.29	42.76	10.47		
			Q_{50bb}	33.09	43.83	10.74		
			SUSMP	3.51	5.86	2.34		
			LID	3.51	5.86	2.34		
Basin 100A Outlet 110A	89.30	84.70	Q_2	0.74	1.79	1.04	0.02	12,600
			Q_5	1.56	2.77	1.21		
			Q_{10}	1.99	3.46	1.47		
			Q_{25}	2.48	4.28	1.80		
			Q_{50}	2.86	4.88	2.02		
			Q_{50b}	3.55	5.49	1.94		
			Q_{50bb}	3.64	5.63	1.99		
			SUSMP	0.57	0.95	0.38		
			LID	0.57	0.95	0.38		
Basin 100B Outlet 165B	1,947.00	84.40	Q_2	55.52	56.26	0.75	0.02	11,100
			Q_5	80.66	82.42	1.76		
			Q_{10}	97.86	98.77	0.91		
			Q_{25}	118.77	120.50	1.73		
			Q_{50}	136.17	137.51	1.34		
			Q_{50b}	181.30	182.60	1.30		
			Q_{50bb}	185.83	187.16	1.33		
			SUSMP	0.57	0.95	0.38		
			LID	0.57	0.95	0.38		

The differences in the storm flows (ΔQ) and flow volumes (ΔV) are calculated at all major watershed confluence points for each storm event. The average numbers of ΔQ and ΔV over the project site acreage were then calculated for each major watershed. The most conservative numbers of ΔQ/acre and ΔV/acre were then used for determining the necessary mitigation method based on the 12.12-acre sample area specified above.

Based on the above assumption, we have determined the ΔQ and ΔV to be 0.79 cfs and 12,600 ft^3, respectively, for the 12.12-acre sample area under the 50-year storm condition, which produces the most stringent results. In order to mitigate this excess flow, the same infiltration trenches specified above for the LID mitigation will be utilized for this purpose. The infiltration trenches will function as series of detention basins that will detain the excess flow and volume onsite and let the detained stormwater infiltrate into the ground. Each of the infiltration trenches has a volume of 224 ft^3. The total volume provided by these infiltration trenches is 13,664 ft^3 per the 12.12-acre sample area. This mitigation method for the 12.12-acre sample area will be applied throughout the project site.

In addition to the infiltration trenches specified above, there will be two infiltration basins each having a capacity of 28,300 ft^3 (about 1,050 cy), to be constructed upstream of the proposed substation area and the office building/maintenance yard area. These infiltration basins will mitigate the excess volume due to the increased imperviousness of these two areas. The details for these basins are shown on the SUSMP Exhibit in Appendix B.

HEC-RAS study and sediment transport analysis for the post-development condition is not necessary since we are not modifying the flow velocity, flow volume, and depth/width of flow for the natural incised channels within the project site.

3.5 Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP)

Structural or Treatment Control Best Management Practices (BMPs) are required for this project under the Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP) standards.

Los Angeles County policies require that the volume of runoff from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system be mitigated by infiltration or treatment.

Since the proposed solar panel layout installation will be similar for the whole project, we are taking a 12.12-acre sample area from the post-development condition with a concrete ballast foundation type as specified in Section 3.4 above for SUSMP analysis purposes to determine the necessary mitigation steps. The mitigation steps for this 12.12-acre sample area will then be applied throughout the project.

Based on the 12.12-acre sample area specified above, we have determined the excess volume (ΔV) to be 6,000 ft^3 under the LID requirements. In order to mitigate this excess volume, the same infiltration trenches specified in Section 3.4 can be utilized to store the excess volume.

The details for the infiltration trench sizes and location are shown on the SUSMP Exhibit on Appendix B.

Table 6 below summarizes the minimum SUSMP requirements and the proposed capacity of the infiltration trenches provided to treat the runoff volume based on the Los Angeles County SUSMP requirements.

Table 6: Typical SUSMP Summary for Sample 12.12-Acre Area

Area (acres)	Required Mitigated Volume V_m (ft^3)	Proposed BMP Type	Required BMP Capacity (ft^3)	Provided BMP Capacity (ft^3)
12.12	6,000	Infiltration Trenches	12,600*	13,664*

*Refer to Section 3.4 LID Analysis for the Required and Provided BMP Capacities

3.6 Baseline Hydrology Comparison with the Stormwater Mitigation Measures

The proposed infiltration trenches specified in Sections 3.4 and 3.5 above will be implemented within the project site as stormwater mitigation measures. The infiltration trenches are modeled in the WMS as detention basins within the applicable sub-areas with detention volumes calculated based on the infiltration trench capacity for the 12.12-acre sample area specified above (12,600 ft^3). The two infiltration basins with a capacity of 28,300 ft^3 each are also modeled within sub-areas 33I and 59J.

With the stormwater mitigation measures modeled in WMS, we then re-run the hydrology analysis to confirm that there will be no significant increases in flows and volumes for the post-development condition. The results of the hydrology analysis show that with the mitigation measures implemented, the increases in flows and volumes are insignificant.

Tables 7 and 8 below summarizes the Hydrology comparison between the pre- and post-development condition, with the stormwater mitigation measures, for the Los Angeles County Capital Flood storm event at the confluence points as the flows are leaving the project boundary. Please refer to the Hydrology Maps and Peak Flow Calculations shown on Appendices B and D, respectively, for more details.

Table 7: Pre-Development vs. Post-Development ΔQ Comparison Summary With the Stormwater Mitigation Measures

Location	Storm Event	Q (cfs)			Total Tributary Area (acres)
		Pre-Dev. Condition	Post-Dev. Condition	Difference	
Basin A	50-Yr Clear	15.36	15.68	0.32	289.30
Outlet 16A	50-Yr Burned	26.70	25.00	-1.70	
	50-Yr Burned/Bulked	27.37	25.63	-1.74	

Table 7: Pre-Development vs. Post-Development ΔQ Comparison Summary With the Stormwater Mitigation Measures (Continued)

Location	Storm Event	Q (cfs)			Total Tributary Area (acres)
		Pre-Dev. Condition	Post-Dev. Condition	Difference	
Basin B	50-Yr Clear	7.03	7.56	0.53	101.00
Outlet 6B	50-Yr Burned	11.60	11.08	-0.52	
	50-Yr Burned/Bulked	11.89	11.36	-0.53	
Basin C	50-Yr Clear	89.21	91.76	2.55	1,504.20
Outlet 110CG	50-Yr Burned	169.64	172.12	2.48	
	50-Yr Burned/Bulked	173.88	176.42	2.54	
Basin H	50-Yr Clear	4.35	4.55	0.20	58.50
Outlet 4H	50-Yr Burned	9.20	8.93	-0.27	
	50-Yr Burned/Bulked	9.43	9.15	-0.28	
Basin I	50-Yr Clear	53.74	57.99	4.25	915.40
Outlet 63IJ	50-Yr Burned	123.27	124.86	1.59	
	50-Yr Burned/Bulked	126.35	127.98	1.63	
Basin K	50-Yr Clear	3,362.84	3,368.55	5.71	5,339.10
Outlet 184KU	50-Yr Burned	4,679.16	4,685.06	5.90	
	50-Yr Burned/Bulked	4,796.14	4,802.19	6.05	
Basin V	50-Yr Clear	10.35	9.37	-0.98	143.10
Outlet 8V	50-Yr Burned	21.95	17.82	-4.13	
	50-Yr Burned/Bulked	22.50	18.27	-4.23	
Basin W	50-Yr Clear	43.59	42.37	-1.22	789.80
Outlet 73WZ	50-Yr Burned	74.54	61.95	-12.59	
	50-Yr Burned/Bulked	76.40	63.50	-12.90	
Basin 100A	50-Yr Clear	7.57	8.81	1.24	89.30
Outlet 110A	50-Yr Burned	13.61	13.20	-0.41	
	50-Yr Burned/Bulked	13.95	13.53	-0.42	
Basin 100B	50-Yr Clear	1,383.19	1,386.65	3.46	1,947.00
Outlet 165B	50-Yr Burned	1,967.36	1,967.34	-0.02	
	50-Yr Burned/Bulked	2,016.54	2,016.52	-0.02	

Table 8: Pre-Development vs. Post-Development ΔV Comparison Summary With the Stormwater Mitigation Measures

Location	Storm Event	V (ac-ft)			Total Tributary Area (acres)
		Pre-Dev. Condition	Post-Dev. Condition	Difference	
Basin A	50-Yr Clear	8.91	9.59	0.68	289.30
Outlet 16A	50-Yr Burned	11.21	11.87	0.66	
	50-Yr Burned/Bulked	11.49	12.17	0.67	
Basin B	50-Yr Clear	2.90	3.41	0.51	101.00
Outlet 6B	50-Yr Burned	3.48	3.97	0.49	
	50-Yr Burned/Bulked	3.56	4.07	0.50	
Basin C	50-Yr Clear	55.52	56.96	1.45	1,504.20
Outlet 110CG	50-Yr Burned	72.51	73.89	1.39	
	50-Yr Burned/Bulked	74.32	75.74	1.42	
Basin H	50-Yr Clear	1.67	1.83	0.15	58.50
Outlet 4H	50-Yr Burned	2.23	2.37	0.14	
	50-Yr Burned/Bulked	2.28	2.42	0.14	
Basin I	50-Yr Clear	33.33	36.99	3.66	915.40
Outlet 63IJ	50-Yr Burned	48.03	51.55	3.52	
	50-Yr Burned/Bulked	49.23	52.84	3.61	
Basin K	50-Yr Clear	784.38	704.57	-79.82	5,339.10
Outlet 184KU	50-Yr Burned	832.85	830.51	-2.34	
	50-Yr Burned/Bulked	853.67	851.27	-2.40	
Basin V	50-Yr Clear	4.05	4.21	0.15	143.10
Outlet 8V	50-Yr Burned	5.38	5.50	0.12	
	50-Yr Burned/Bulked	5.51	5.64	0.12	
Basin W	50-Yr Clear	25.39	22.51	-2.88	789.80
Outlet 73WZ	50-Yr Burned	32.29	27.84	-4.44	
	50-Yr Burned/Bulked	33.09	28.54	-4.56	
Basin 100A	50-Yr Clear	2.86	3.81	0.95	89.30
Outlet 110A	50-Yr Burned	3.55	4.44	0.89	
	50-Yr Burned/Bulked	3.64	4.55	0.91	
Basin 100B	50-Yr Clear	163.44	136.56	-26.88	1,947.00
Outlet 165B	50-Yr Burned	181.30	181.61	0.31	
	50-Yr Burned/Bulked	185.83	186.15	0.32	

4. HYDRAULICS STUDY

4.1 HEC-RAS Analysis

Hydraulics studies were performed for three separate stream reaches within the project site. The first reach is Drainage A, which starts at the vicinity of the intersection of West Avenue D (SR-138) and 170th Street West, going in the northeasterly direction. The second reach is Drainage B, starts below West Avenue D, going in the northerly direction and making a turn towards the easterly direction, flowing below the Drainage A, once it crosses West Avenue D. The third reach is Broad Canyon Creek (Drainage C), located along the southern edge of the project, going in the easterly direction.

HEC-RAS program was used to estimate the limits of flooding and flow velocities along the above specified three stream reaches. Cross sections along these reaches were analyzed at 500-foot intervals from approximately 500 feet upstream of the project boundary to approximately 500 feet downstream of the project boundary. Roughness values for the cross sections were estimated from the site photos. A Mannings n-value of 0.05 was assigned for the incised channel area and a Manning n-value of 0.1 was assigned for areas outside of the incised channels.

HEC-RAS model was utilized to calculate the water surface elevations at each of the cross sections. The resulting water surface elevations were used to delineate the flood plain limits and the depth of flood at 6-inch intervals up to 5 feet deep on the Flood Plain Exhibits in Appendix I. The flow speeds for each reach are also plotted on the Flood Plain Exhibits at 1 ft/sec intervals.

4.2 Flood Plain Evaluation

The Flood Plain Exhibits in Appendix I show the delineated flood plain limits, which are the extent of the flooding for the Los Angeles County Capital Flood 50-Year Burned and Bulked Condition. The flood depths and velocities are also plotted on the Flood Plain Exhibits.

The flood plain for the Drainage A forms a wide flood plain across the project site, with flood depths ranging from 2 inches to 21 inches outside of the incised channel area. The flood velocities resulting from the Drainage A range from 0.04 ft/sec to 9.0 ft/sec.

The flooding from Drainage B is fairly nominal, with flood depths ranging from 2 inches to 16 inches outside of the incised channel area. The flood velocities range from 0.08 ft/sec to 3.4 ft/sec.

The extent of flooding in the Drainage C is largely contained within the channel, as shown on the Flood Plain Exhibit. The flood depths range from 2 inches to 23 inches outside of the channel area. The flood velocities range from 0.2 ft/sec to 7.8 ft/sec.

5. CONCLUSIONS AND RECOMMENDATION

Based on the hydrologic data from the post-development condition, with the stormwater mitigation measures implemented, the proposed development on the project site will produce no increase in flows and volumes at the confluence points.

The increase in flow rates and volumes are being mitigated onsite by the implementation of infiltration trenches measuring 8 feet wide by 15 feet long by 12 inches deep, with 4:1 side slopes, located behind every other row of solar panels, spaced 50 feet apart and staggered.

Two additional infiltration basins, with a capacity of 28,300 ft^3 (about 1,050 cy) each, are implemented upstream of the substation area and the office building/maintenance yard area to mitigate the excess volume due to the increased imperviousness of these two areas.

As requested by Los Angeles County, a 100-foot wide and a 65-foot wide easements will be dedicated to Los Angeles County along Drainage A and Drainage C, respectively, for future flood control purposes.

A development setback is also shown parallel to the Los Angeles County easement along Drainage A, as specified in the EIR. The development setback is 100 feet from either side of the natural incised channel bank in Drainage A and reduced to 100 feet total width beyond the natural incised channel area. There will be no development within the proposed Los Angeles County easements and within the development setback specified above.

When solar panels are installed within areas where the flow depth and velocities exceed 18 inches and 3 ft/sec, respectively, we recommend that the panel support system is analyzed to confirm that it can withstand the flow depth and flow velocities indicated in this report and will not be subject to damage from those flow conditions.

6. LIMITATIONS

This report was prepared to comply with the guidelines established by the County of Los Angeles (LACDPW 1990, 1991, 1993) and their representatives. Evaluation of the appropriateness of these guidelines and the accuracy of County data were beyond the scope of this work.

Usage of this report is limited to address the purpose and scope previously defined by the project owner. Psomas shall not be held responsible for any unauthorized application of this report and the contents herein.

The opinions presented in this report have been derived in accordance with current standards of civil engineering practice. No other warranty is expressed or implied.

7. REFERENCES

California Stormwater Quality Association, *Stormwater Best Management Practice Handbook, New Development and Redevelopment*, January 2003

Los Angeles County Department of Public Works, *LACDPW Hydrology/Sedimentation Manual and Appendices* (1991, 1992, 1993, 2002, 2006)

Los Angeles County Department of Public Works, *LACDPW TC v1.0 Manual, TC_calc_depth.xls* (December 1991, June 2002)

Los Angeles County Department of Public Works, *LACDPW Modified Rational Method, LAR04 Manual* (September 2002)

Los Angeles Regional Water Quality Control Board, *Standard Urban Stormwater Mitigation Plan for Los Angeles County and Cities in Los Angeles County* (March 2000)

Los Angeles County Department of Public Works, *Development Planning for Storm Water Management – A Manual for the Standard Urban Storm Water Mitigation Plan (SUSMP)* (September 2002)

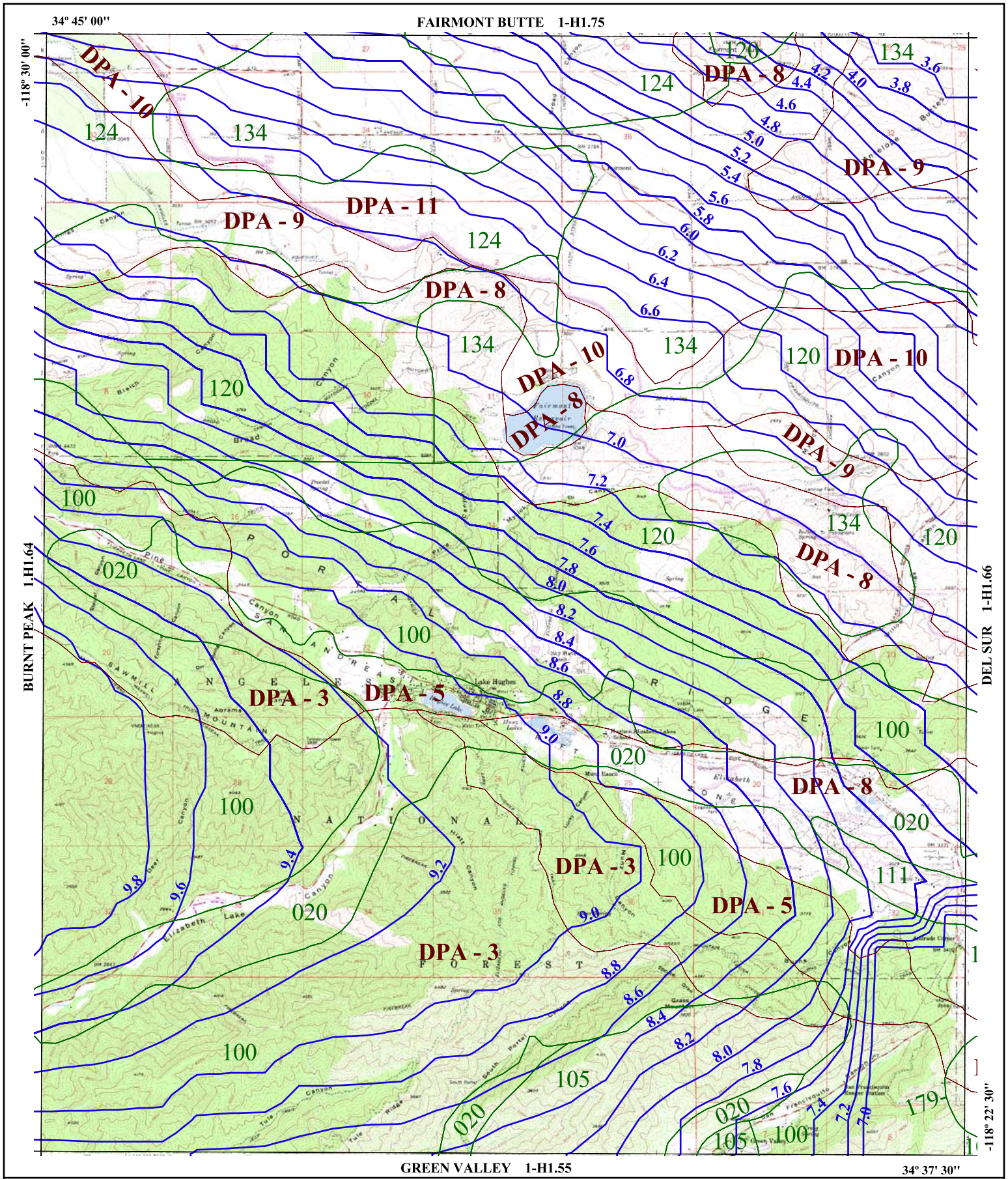
Los Angeles County Department of Public Works, *County of Los Angeles Low Impact Development Standards Manual* (January 2009)

US Army Corps of Engineer – Hydrologic Engineering Center, *HEC-RAS River Analysis System User's Manual* (March 2008)

RBF Consulting, *Preliminary Hydrology and Hydraulics Report for AV Solar Ranch One* (March 2009)

APPENDIX A

LACDPW ISOHYET/SOILS INFORMATION



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

N W E S

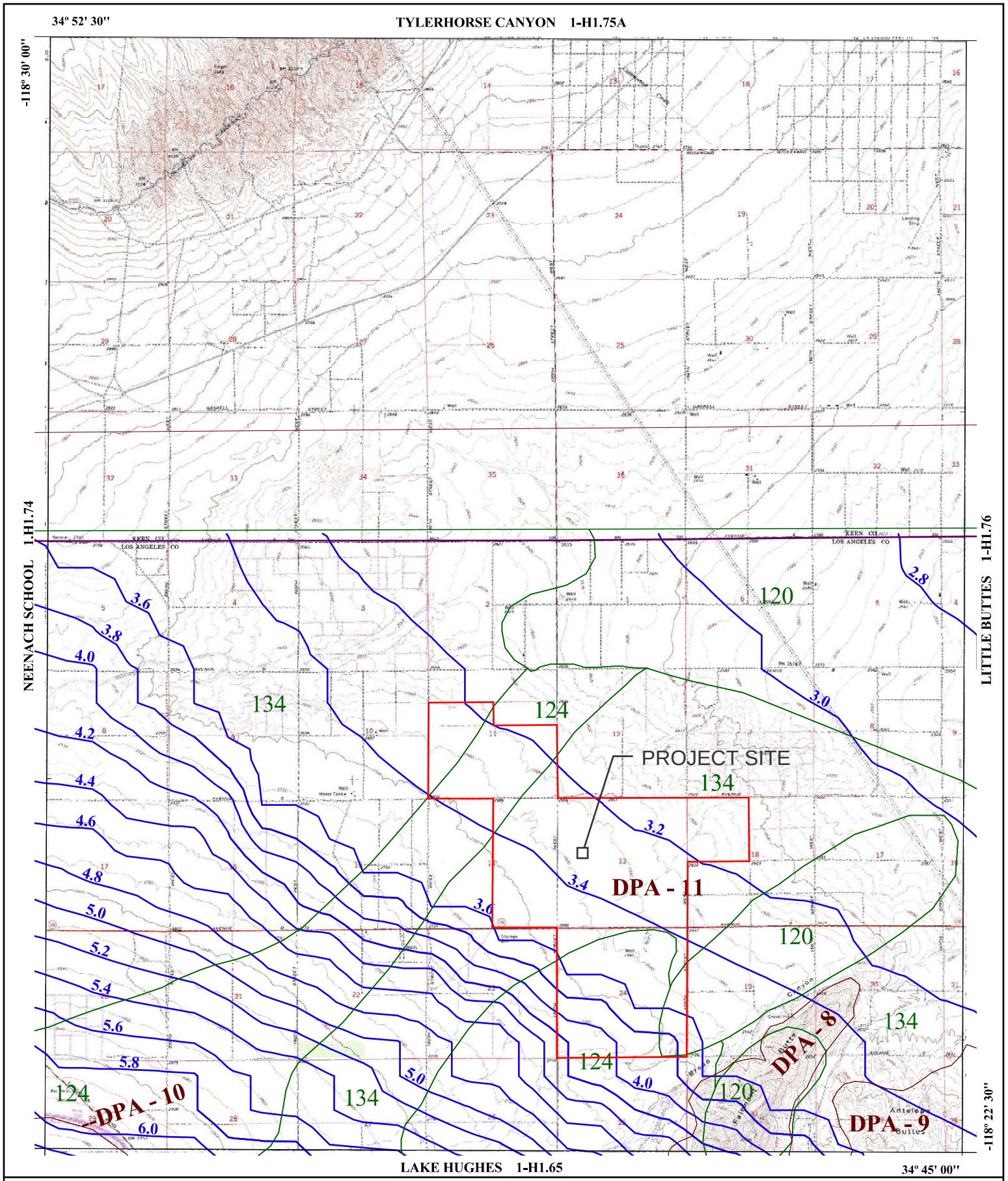
1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

LAKE HUGHES
50-YEAR 24-HOUR ISOHYET

1-H1.65

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works



016 SOIL CLASSIFICATION AREA

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DPA - 6 DEBRIS POTENTIAL AREA

N S E W

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

FAIRMONT BUTTE
50-YEAR 24-HOUR ISOHYET

1-H1.75

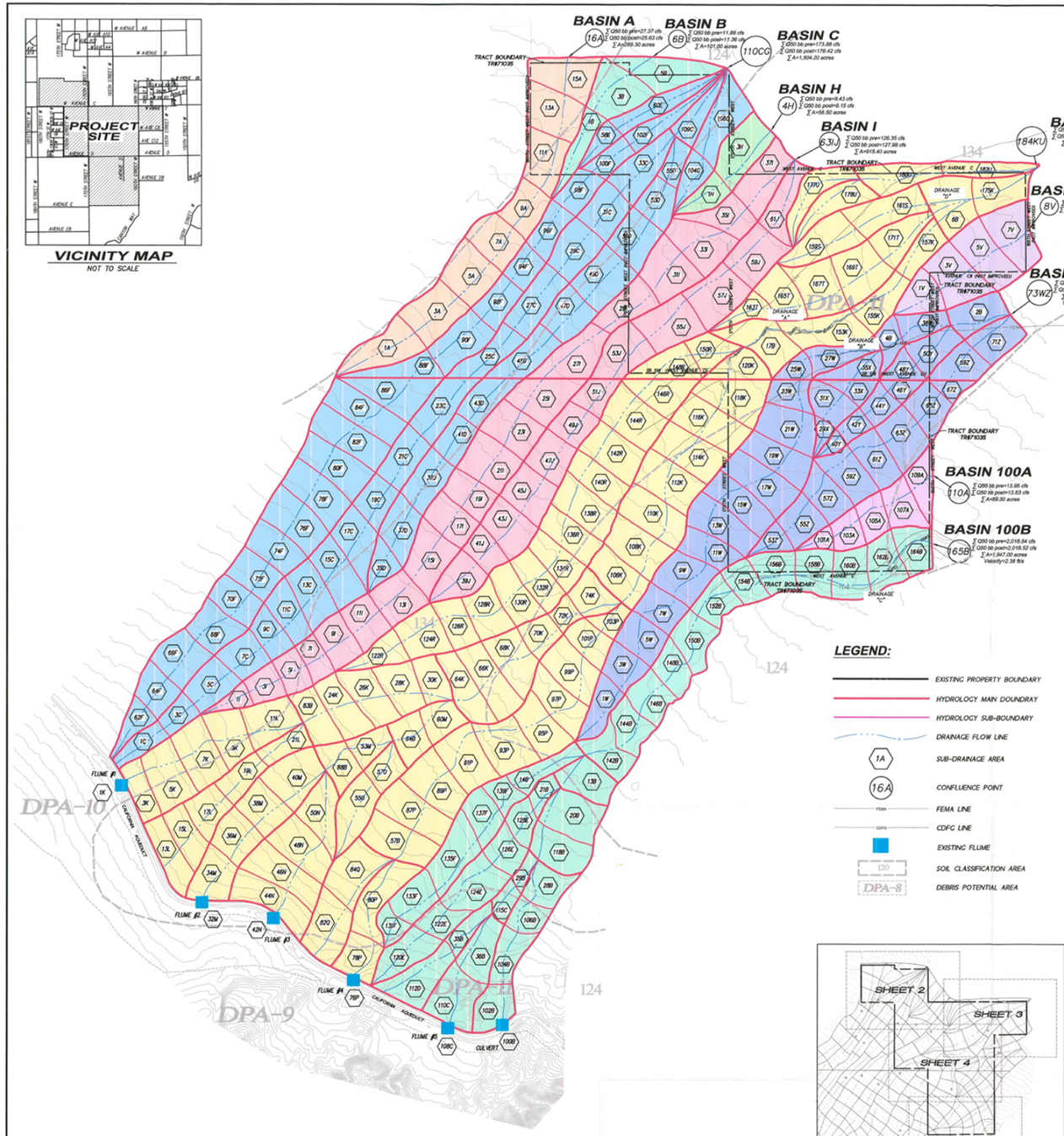
LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

APPENDIX B

HYDROLOGY EXHIBITS

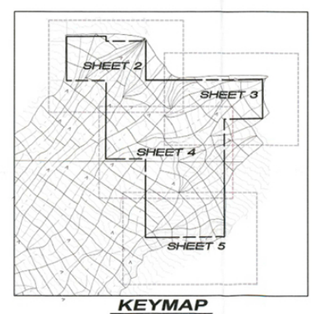
VICINITY MAP

NOT TO SCALE



LEGEND:

- EXISTING PROPERTY BOUNDARY
- HYDROLOGY MAIN DOUNDRAY
- HYDROLOGY SUB-BOUNDARY
- DRAINAGE FLOW LINE
- 1A — SUB-DRAINAGE AREA
- 16A — CONFLUENCE POINT
- FEMA — FEMA LINE
- CDFG — CDFG LINE
- EXISTING FLUME
- 120 — SOIL CLASSIFICATION AREA
- DPA-8 — DEBRIS POTENTIAL AREA



KEYMAP

SCALE: 1" = 3000'

EXISTING HYDROLOGY

Subarea	Area (acres)	% Imp	Storm Freq.	Soil Type	Length (ft)	Slope (ft/ft)	Iso/syst (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd
1A	40.0	0.01	50	124	2,368	0.0092	4.2	30	1.08	0.10	0.11
3A	39.8	0.01	50	124	1,498	0.0097	3.8	30	0.98	0.10	0.11
5A	38.3	0.01	50	124	1,253	0.0091	3.6	30	0.93	0.10	0.11
7A	32.4	0.01	50	124	1,114	0.0101	3.5	30	0.90	0.10	0.11
9A	27.7	0.01	50	124	1,242	0.0087	3.4	30	0.87	0.10	0.11
11A	33.9	0.01	50	124	1,469	0.0099	3.4	30	0.87	0.10	0.11
13A	38.9	0.01	50	134	1,177	0.0087	3.3	30	0.85	0.10	0.11
15A	38.3	0.01	50	134	994	0.0104	3.2	30	0.82	0.10	0.11
1B	22.1	0.01	50	124	2,664	0.0093	3.4	30	0.87	0.10	0.11
3B	39.9	0.01	50	124	1,443	0.0124	3.2	30	0.82	0.10	0.11
5B	39.0	0.01	50	124	732	0.0103	3.2	30	0.82	0.10	0.11
1C	17.8	0.01	50	124	1,591	0.0201	6.2	30	1.59	0.14	0.15
3C	15.5	0.01	50	124	1,045	0.0180	6.0	30	1.54	0.13	0.14
5C	29.5	0.01	50	124	1,347	0.0173	5.8	30	1.49	0.12	0.13
7C	25.1	0.01	50	124	1,037	0.0175	5.7	30	1.47	0.11	0.12
9C	20.7	0.01	50	124	733	0.0164	5.6	30	1.44	0.11	0.12
11C	25.8	0.01	50	124	713	0.0162	5.5	30	1.41	0.10	0.11
13C	31.9	0.01	50	124	939	0.0156	5.5	30	1.41	0.10	0.11
15C	34.6	0.01	50	124	903	0.0126	5.4	30	1.39	0.10	0.11
17C	32.8	0.01	50	124	1,112	0.0142	5.2	30	1.34	0.10	0.11
19C	23.2	0.01	50	124	1,160	0.0121	5.0	30	1.29	0.10	0.11
21C	29.7	0.01	50	124	1,549	0.0113	4.7	30	1.21	0.10	0.11
23C	35.4	0.01	50	124	1,993	0.0106	4.2	30	1.08	0.10	0.11
25C	28.1	0.01	50	124	1,765	0.0089	3.9	30	1.00	0.10	0.11
27C	35.0	0.01	50	124	1,922	0.0082	3.6	30	0.93	0.10	0.11
29C	34.0	0.01	50	124	1,457	0.0104	3.5	30	0.90	0.10	0.11
31C	29.3	0.01	50	124	1,251	0.0108	3.4	30	0.87	0.10	0.11
33C	35.6	0.01	50	124	2,107	0.0110	3.3	30	0.85	0.10	0.11
109C	21.4	0.01	50	124	2,279	0.0094	3.2	30	0.82	0.10	0.11
35D	16.7	0.01	50	134	1,299	0.0130	5.2	30	1.34	0.14	0.15
37D	29.0	0.01	50	134	1,308	0.0138	5.0	30	1.29	0.10	0.11
39D	29.9	0.01	50	124	1,530	0.0105	4.8	30	1.23	0.10	0.11
41D	21.4	0.01	50	124	1,185	0.0107	4.5	30	1.16	0.10	0.11
43D	26.1	0.01	50	124	1,524	0.0106	4.2	30	1.08	0.10	0.11
45D	30.2	0.01	50	134	1,697	0.0084	4.0	30	1.03	0.10	0.11
47D	30.2	0.01	50	134	1,239	0.0099	3.6	30	0.93	0.10	0.11
49D	39.9	0.01	50	134	1,500	0.0087	3.5	30	0.90	0.10	0.11
51D	31.8	0.01	50	134	1,258	0.0114	3.4	30	0.87	0.10	0.11
53D	23.9	0.01	50	134	1,118	0.0078	3.4	30	0.87	0.10	0.11
55D	14.6	0.01	50	124	1,256	0.0099	3.3	30	0.85	0.10	0.11
58E	12.6	0.01	50	124	1,440	0.0115	3.3	30	0.85	0.10	0.11
60E	28.7	0.01	50	124	3,334	0.0115	3.2	30	0.82	0.10	0.11
62F	16.5	0.01	50	124	1,673	0.0210	6.1	30	1.57	0.13	0.14
64F	24.0	0.01	50	124	955	0.0200	6.0	30	1.54	0.13	0.14
66F	33.9	0.01	50	124	1,231	0.0163	5.8	30	1.49	0.12	0.13
68F	29.6	0.01	50	124	1,322	0.0174	5.7	30	1.47	0.11	0.12
70F	25.9	0.01	50	124	874	0.0146	5.6	30	1.44	0.11	0.12
72F	26.7	0.01	50	124	907	0.0150	5.5	30	1.41	0.10	0.11
74F	29.9	0.01	50	124	876	0.0140	5.4	30	1.39	0.10	0.11
76F	39.5	0.01	50	124	987	0.0160	5.2	30	1.34	0.10	0.11
78F	38.8	0.01	50	124	900	0.0130	5.0	30	1.29	0.10	0.11
80F	39.6	0.01	50	124	831	0.0143	4.8	30	1.23	0.10	0.11
82F	39.9	0.01	50	124	829	0.0121	4.6	30	1.18	0.10	0.11
84F	39.8	0.01	50	124	853	0.0117	4.4	30	1.13	0.10	0.11
86F	39.1	0.01	50	124	1,094	0.0099	4.4	30	1.13	0.10	0.11
88F	22.9	0.01	50	124	845	0.0078	4.2	30	1.08	0.10	0.11
90F	36.2	0.01	50	124	1,675	0.0088	3.9	30	1.00	0.10	0.11
92F	23.7	0.01	50	124	1,298	0.0095	3.8	30	0.93	0.10	0.11
94F	17.9	0.01	50	124	1,020	0.0084	3.5	30	0.90	0.10	0.11
96F	22.5	0.01	50	124	1,387	0.0064	3.4	30	0.87	0.10	0.11
98F	21.4	0.01	50	124	1,222	0.0099	3.4	30	0.87	0.10	0.11
100F	16.7	0.01	50	124	1,247	0.0115	3.3	30	0.85	0.10	0.11
102F	23.0	0.01	50	124	3,287	0.0111	3.2	30	0.82	0.10	0.11
104G	18.2	0.01	50	134	1,858	0.0104	3.3	30	0.85	0.10	0.11
106G	39.9	0.01	50	134	2,469	0.0090	3.2	30	0.82	0.10	0.11
1H	19.0	0.01	50	134	1,718	0.0090	3.3	30	0.85	0.10	0.11
3H	39.5	0.01	50	134	1,850	0.0112	3.2	30	0.82	0.10	0.11
5I	10.8	0.01	50	124	1,416	0.0169	5.8	30	1.49	0.12	0.13
3I	18.1	0.01	50	124	929	0.0163	5.7	30	1.47	0.11	0.12
5I	12.8	0.01	50	124	459	0.0169	5.7	16	1.97	0.21	0.22
7I	16.5	0.01	50	134	616	0.0136	5.6	16	1.93	0.30	0.31
9I	25.9	0.01	50	134	879	0.0149	5.6	24	1.60	0.22	0.23
11I	26.8	0.01	50	134	968	0.0127	5.5	30	1.41	0.16	0.17
13I	31.1	0.01	50	134	1,180	0.0126	5.3	30	1.36	0.15	0.16
15I	37.7	0.01	50	134	1,443	0.0129	5.2	30	1.34	0.14	0.15
17I	27.6	0.01	50	134	900	0.0119	4.9	30	1.26	0.12	0.13
19I	25.5	0.01	50	134	838	0.0125	4.8	30	1.23	0.11	0.12
21I	37.2	0.01	50	134	1,165	0.0103	4.6	30	1.18	0.10	0.11
23I	34.3	0.01	50	134	1,034	0.0107	4.4	30	1.13	0.10	0.11
25I	38.0	0.01	50	134	1,049	0.0101	4.2	30	1.08	0.10	0.11
27I	39.5	0.01	50	134	2,077	0.0093	3.8	30	0.98	0.10	0.11
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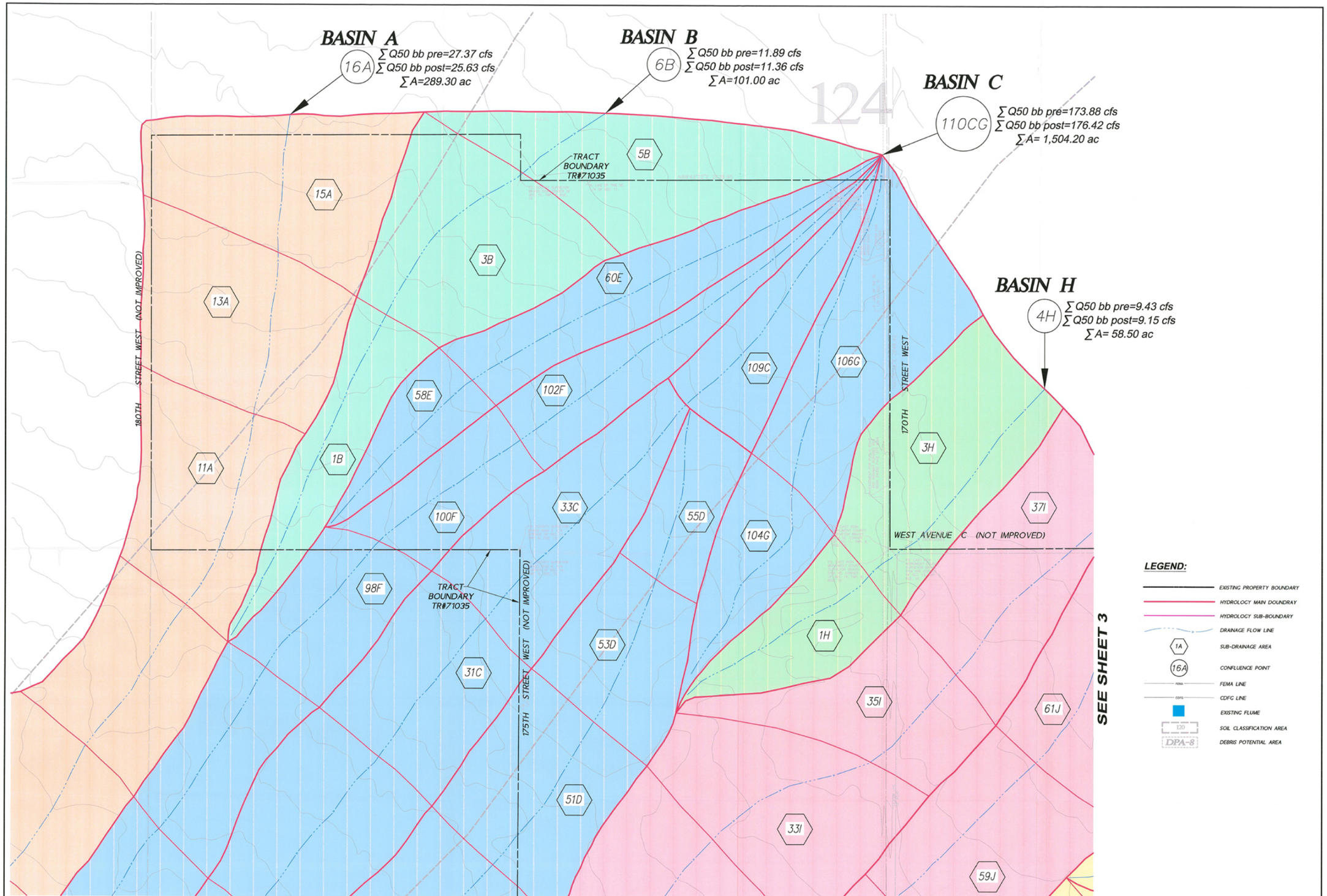
31I	39.6	0.01	50	134	1,306	0.0098	3.4	30	0.87	0.10	0.11
33I	39.3	0.01	50	134	1,279	0.0096	3.4	30	0.87	0.10	0.11
35I	26.7	0.01	50	134	878	0.0114	3.3	30	0.85	0.10	0.11
37I	37.9	0.01	50	134	1,809	0.0076	3.2	30	0.82	0.10	0.11
39J	27.8	0.01	50	134	1,645	0.0119	5.2	30	1.34	0.14	0.15
41J	18.8	0.01	50	134	760	0.0129	5.0	30	1.29	0.13	0.14
43J	32.3	0.01	50	134	1,022	0.0128	4.9	30	1.26	0.12	0.13
45J	32.3	0.01	50	134	1,126	0.0115



DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: RCE NO. 70497 DATE 1/27/10
CHECKED BY: DATE 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Existing 2

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

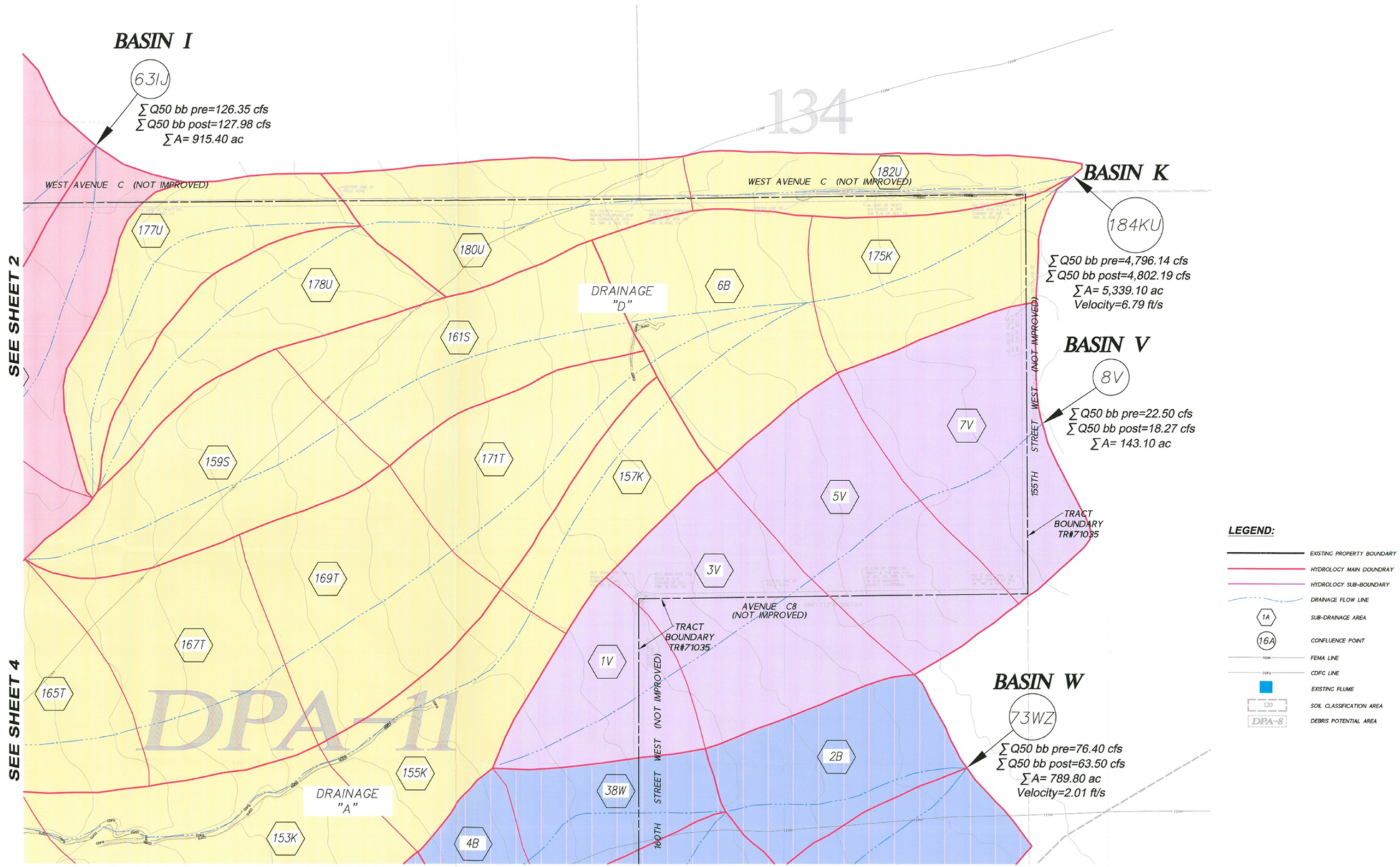
PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA R.C.E. NO. C 67285 12/14/09 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
EXISTING HYDROLOGY STUDY
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 2 OF 5



DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: RCE NO. DATE
CHECKED BY: DATE
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Existing Sht 3

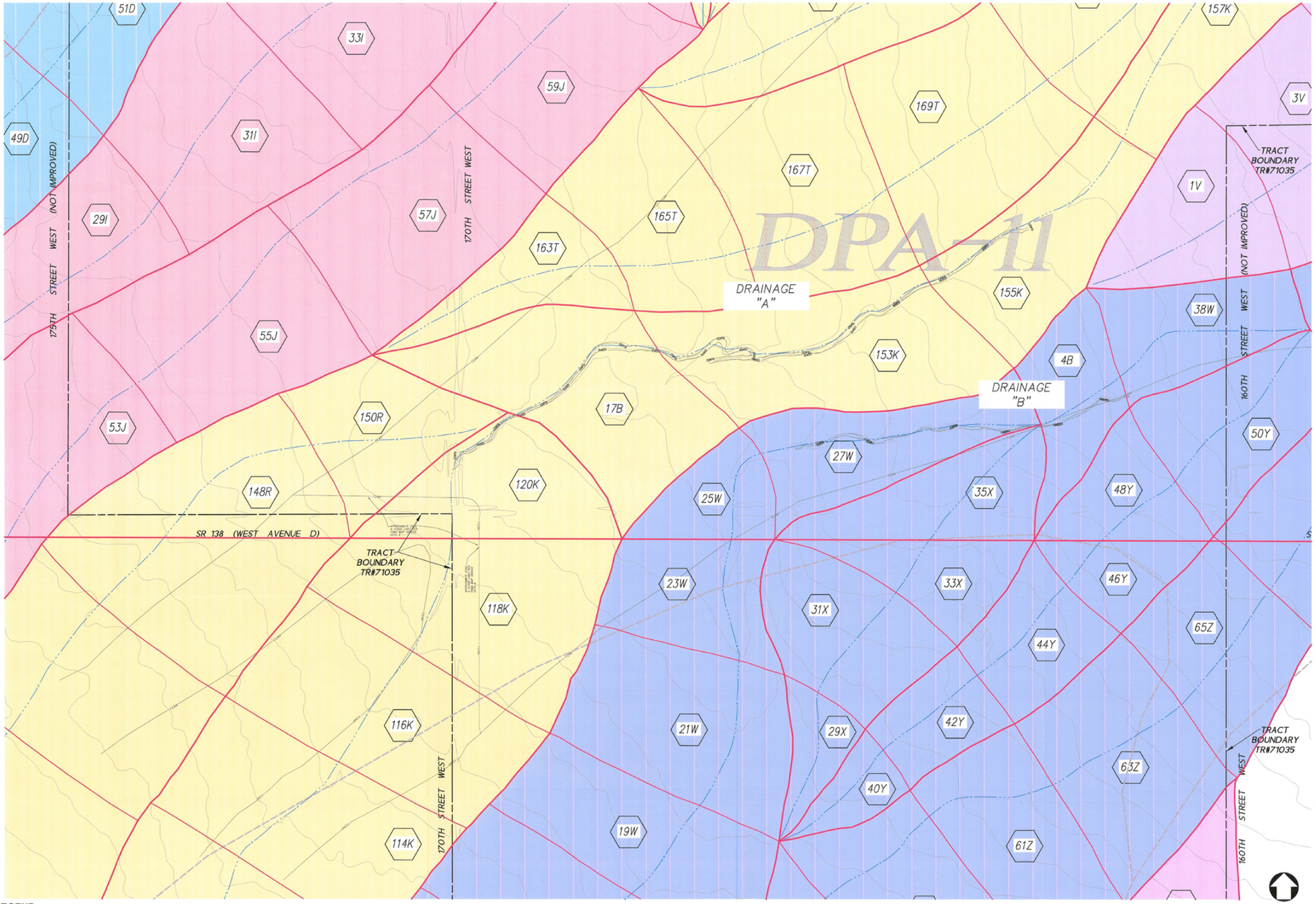
PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
No. C-67285 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA
12/14/09
ERIK WINATA R.C.E. NO. C 67285 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
EXISTING HYDROLOGY STUDY
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 3 OF 5



LEGEND:

- EXISTING PROPERTY BOUNDARY
- HYDROLOGY MAIN DOUNDRAY
- HYDROLOGY SUB-BOUNDARY
- DRAINAGE FLOW LINE
- 1A SUB-DRAINAGE AREA
- 16A CONFLUENCE POINT
- FEMA FEMA LINE
- CDFG CDFG LINE
- EXISTING FLUME
- 120 DPA-8 SOIL CLASSIFICATION AREA
- DEBRIS POTENTIAL AREA

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: RCE NO. 20094 DATE: 1/27/10
CHECKED BY: DATE: 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Existing sht 4

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA R.C.E. NO. C 67285 DATE 12/19/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
NEXTLIGHT RENEWABLE POWER, LLC
SAN FRANCISCO, CALIFORNIA

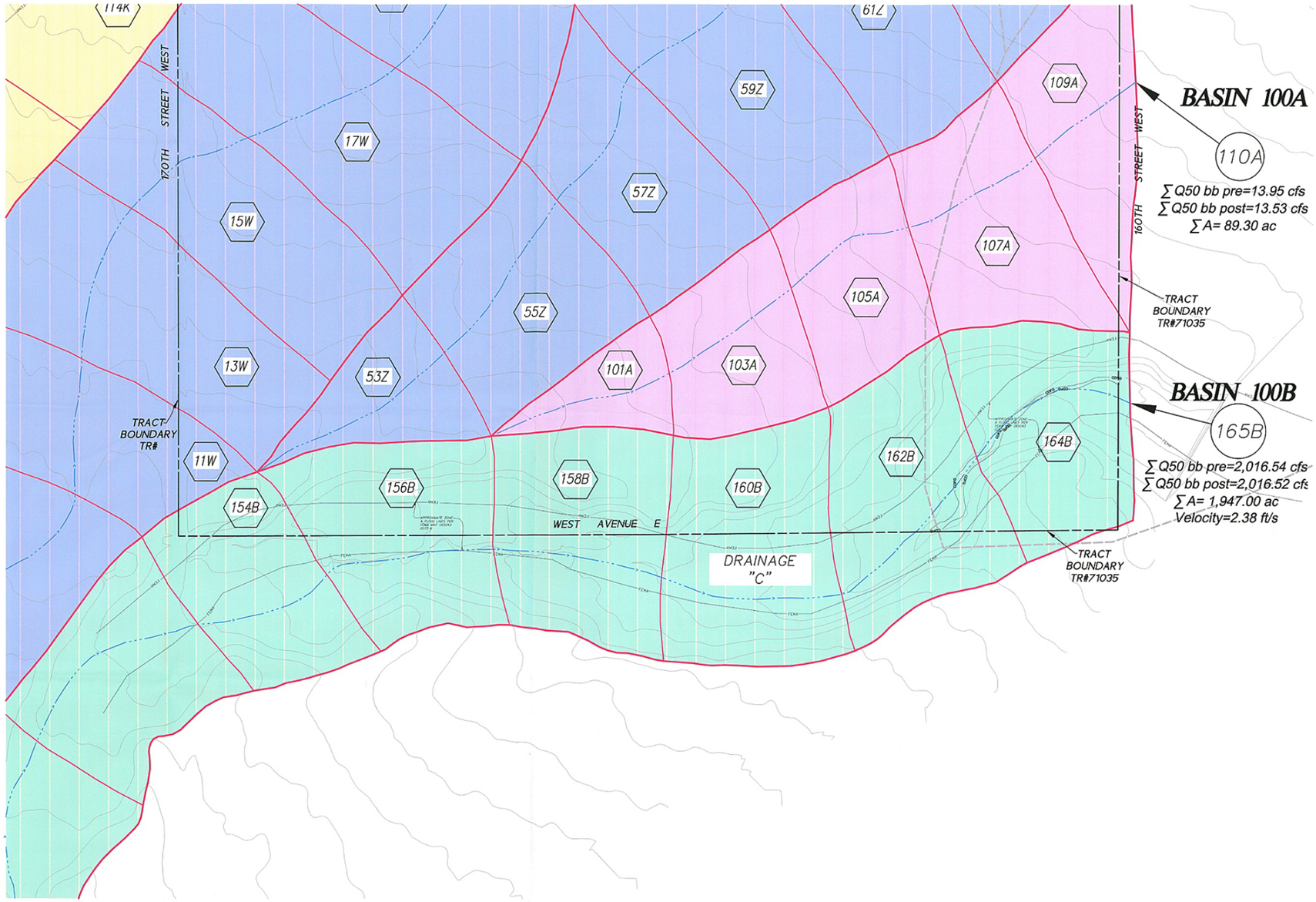
AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA

EXISTING HYDROLOGY STUDY

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 4 OF 5

SEE SHEET 4



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- HYDROLOGY MAIN DOUNDRAY
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- DPA-8 — DEBRIS POTENTIAL AREA

FEET 200 100 0 200 400
INCHES 1 1/2 0 1 2

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: [signature] RCE NO. 70491 DATE 1/27/10
CHECKED BY: [signature] DATE 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Existing sht 5

REGISTERED PROFESSIONAL ENGINEER — ERIK WINATA — No. C-67285 — Exp. 09/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
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[signature] 12/14/09
ERIK WINATA R.C.E. NO. C 67285 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA

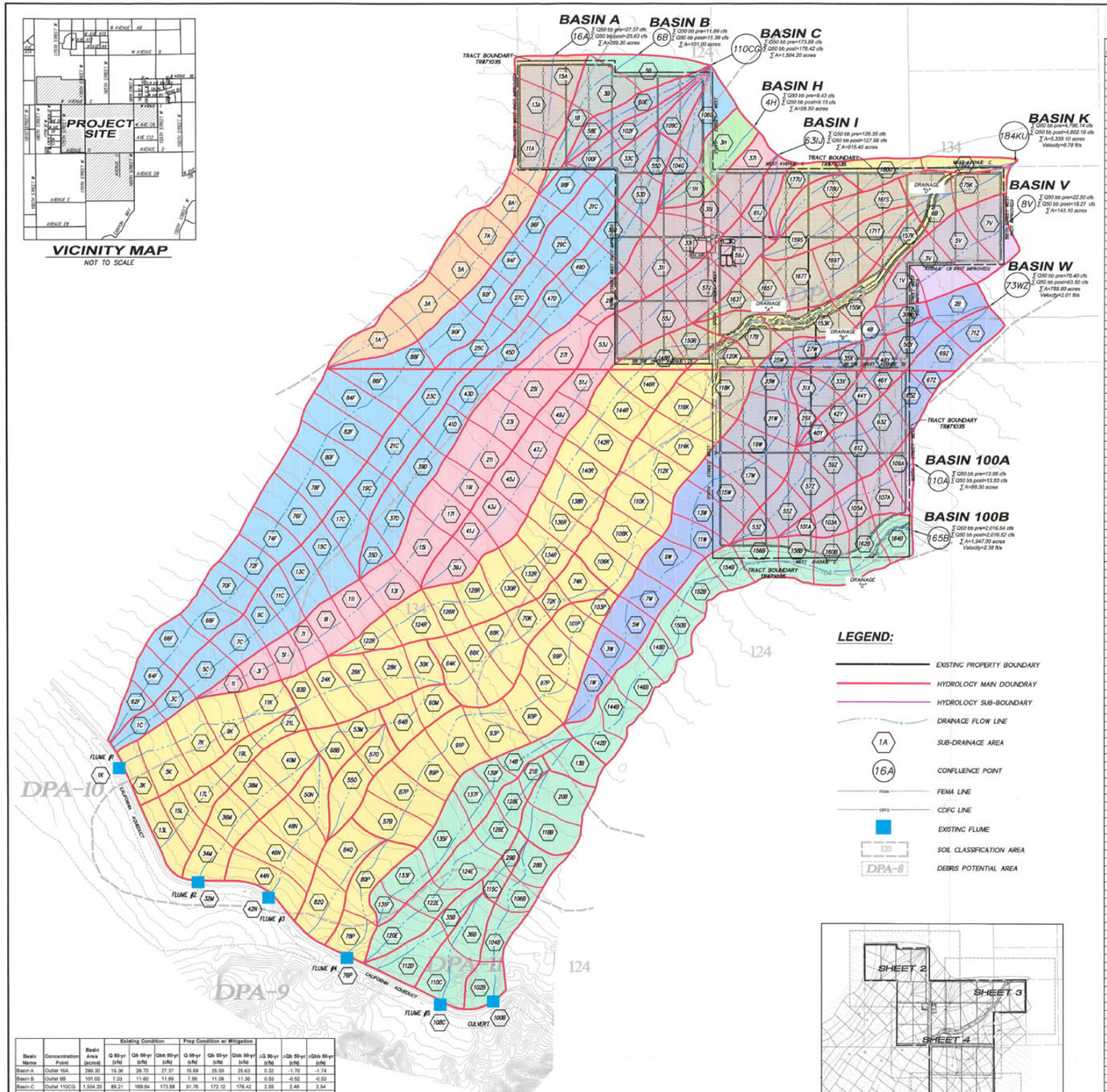
EXISTING HYDROLOGY STUDY

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 5 OF 5

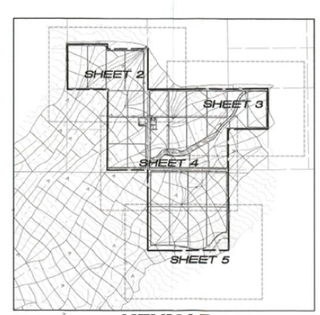
VICINITY MAP

NOT TO SCALE



LEGEND:

- EXISTING PROPERTY BOUNDARY
- HYDROLOGY MAIN DOUNDRAY
- HYDROLOGY SUB-BOUNDARY
- DRAINAGE FLOW LINE
- 1A — SUB-DRAINAGE AREA
- 16A — CONFLUENCE POINT
- FEMA — FEMA LINE
- CDFG — CDFG LINE
- EXISTING FLUME
- 120 — SOIL CLASSIFICATION AREA
- DPA-8 — DEBRIS POTENTIAL AREA



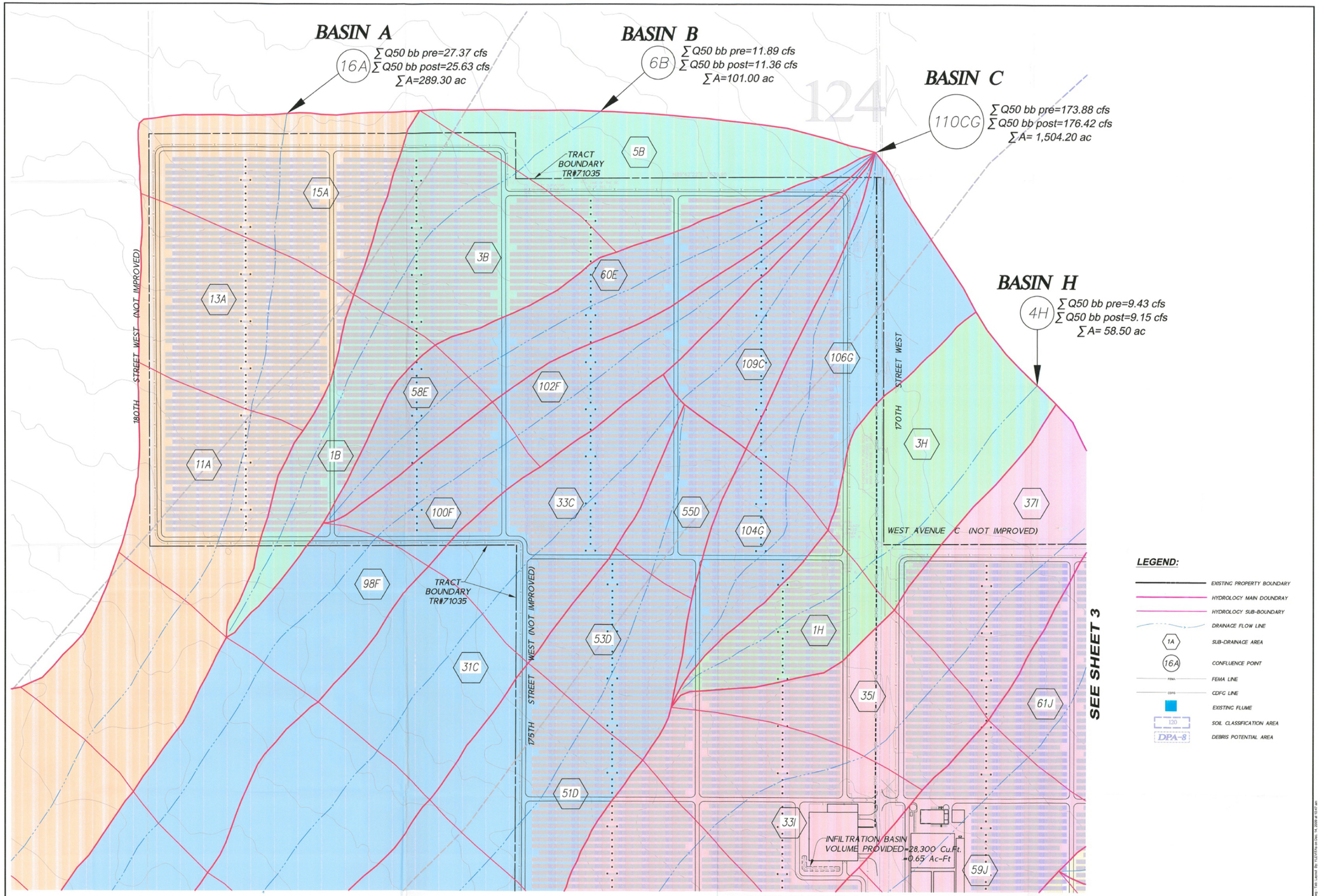
KEYMAP

SCALE: 1" = 3000'

PROPOSED HYDROLOGY

Subarea	Area (acres)	% Imp	Storm Freq.	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd
1A	40.0	0.01	50	124	2,398	0.0092	4.2	30	1.08	0.10	0.11
3A	39.8	0.01	50	124	1,498	0.0097	3.8	30	0.98	0.10	0.11
5A	38.3	0.01	50	124	1,253	0.0091	3.6	30	0.93	0.10	0.11
7A	32.4	0.01	50	124	1,114	0.0101	3.5	30	0.90	0.10	0.11
9A	27.7	0.01	50	124	1,242	0.0087	3.4	30	0.87	0.10	0.16
11A	33.9	0.07	50	124	1,469	0.0099	3.4	30	0.87	0.10	0.18
13A	38.9	0.10	50	134	1,177	0.0087	3.3	30	0.85	0.10	0.18
15A	38.3	0.10	50	134	994	0.0104	3.2	30	0.82	0.10	0.18
1B	23.1	0.10	50	124	2,664	0.0093	3.4	30	0.87	0.10	0.18
3B	39.9	0.10	50	134	1,443	0.0124	3.2	30	0.82	0.10	0.18
5B	39.0	0.04	50	124	732	0.0103	3.2	30	0.82	0.10	0.13
1C	17.8	0.01	50	124	1,591	0.0201	6.2	30	1.59	0.14	0.15
3C	15.5	0.01	50	124	1,045	0.0180	6.0	30	1.54	0.13	0.14
5C	29.5	0.01	50	124	1,347	0.0173	5.8	30	1.49	0.12	0.13
7C	25.1	0.01	50	124	1,037	0.0175	5.7	30	1.47	0.11	0.12
9C	20.7	0.01	50	124	733	0.0164	5.6	30	1.44	0.11	0.12
11C	25.8	0.01	50	124	713	0.0162	5.5	30	1.41	0.10	0.11
13C	31.9	0.01	50	124	939	0.0156	5.5	30	1.41	0.10	0.11
15C	34.6	0.01	50	124	903	0.0126	5.4	30	1.39	0.10	0.11
17C	32.8	0.01	50	124	1,112	0.0142	5.2	30	1.34	0.10	0.11
19C	23.2	0.01	50	124	1,160	0.0121	5.0	30	1.29	0.10	0.11
21C	29.7	0.01	50	124	1,549	0.0113	4.7	30	1.21	0.10	0.11
23C	35.4	0.01	50	124	1,993	0.0106	4.2	30	1.08	0.10	0.11
25C	28.1	0.01	50	124	1,765	0.0089	3.9	30	1.00	0.10	0.11
27C	36.0	0.01	50	124	1,822	0.0092	3.6	30	0.93	0.10	0.11
29C	34.0	0.01	50	124	1,467	0.0104	3.5	30	0.90	0.10	0.11
31C	29.3	0.01	50	124	1,251	0.0108	3.4	30	0.87	0.10	0.11
33C	35.6	0.09	50	124	2,107	0.0110	3.3	30	0.85	0.10	0.18
109C	21.4	0.10	50	124	2,279	0.0094	3.2	30	0.82	0.10	0.18
35D	16.7	0.01	50	134	1,299	0.0130	5.2	30	1.34	0.14	0.15
37D	29.0	0.01	50	124	1,368	0.0138	5.0	30	1.29	0.10	0.11
39D	29.9	0.01	50	124	1,530	0.0105	4.8	30	1.23	0.10	0.11
41D	21.4	0.01	50	124	1,185	0.0107	4.5	30	1.16	0.10	0.11
43D	26.1	0.01	50	124	1,524	0.0106	4.2	30	1.08	0.10	0.11
45D	30.2	0.01	50	134	1,697	0.0084	4.0	30	1.03	0.10	0.11
47D	30.2	0.01	50	134	1,239	0.0099	3.6	30	0.93	0.10	0.11
49D	38.0	0.01	50	134	1,580	0.0087	3.5	30	0.90	0.10	0.11
51D	31.8	0.05	50	134	1,258	0.0114	3.4	30	0.87	0.10	0.14
53D	23.0	0.10	50	134	1,118	0.0076	3.4	30	0.87	0.10	0.18
55D	14.8	0.10	50	124	1,256	0.0099	3.3	30	0.85	0.10	0.18
58E	12.6	0.10	50	124	1,440	0.0115	3.3	30	0.85	0.10	0.18
60E	28.7	0.10	50	124	3,334	0.0115	3.2	30	0.82	0.10	0.18
62F	16.5	0.01	50	124	1,673	0.0210	6.1	30	1.57	0.13	0.14
64F	24.0	0.01	50	124	955	0.0200	6.0	30	1.54	0.13	0.14
66F	33.9	0.01	50	124	1,251	0.0183	5.8	30	1.49	0.12	0.13
68F	29.6	0.01	50	124	1,122	0.0174	5.7	30	1.47	0.11	0.12
70F	25.9	0.01	50	124	874	0.0148	5.6	30	1.44	0.11	0.12
72F	26.7	0.01	50	124	907	0.0150	5.5	30	1.41	0.10	0.11
74F	29.9	0.01	50	124	876	0.0140	5.4	30	1.39	0.10	0.11
76F	39.5	0.01	50	124	987	0.0160	5.2	30	1.34	0.10	0.11
78F	38.8	0.01	50	124	900	0.0130	5.0	30	1.29	0.10	0.11
80F	39.6	0.01	50	124	831	0.0143	4.8	30	1.23	0.10	0.11
82F	39.9	0.01	50	124	829	0.0121	4.6	30	1.18	0.10	0.11
84F	39.8	0.01	50	124	853	0.0117	4.4	30	1.13	0.10	0.11
86F	39.1	0.01	50	124	1,094	0.0099	4.4	30	1.13	0.10	0.11
88F	22.9	0.01	50	124	845	0.0078	4.2	30	1.08	0.10	0.11
90F	36.2	0.01	50	124	1,675	0.0088	3.9	30	1.00	0.10	0.11
92F	23.7	0.01	50	124	1,298	0.0095	3.6	30	0.93	0.10	0.11
94F	17.9	0.01	50	124	1,020	0.0084	3.5	30	0.90	0.10	0.11
96F	22.5	0.01	50	124	1,387	0.0064	3.4	30	0.87	0.10	0.11
98F	21.4	0.01	50	124	1,222	0.0099	3.4	30	0.87	0.10	0.11
100F	16.7	0.10	50	124	1,247	0.0115	3.3	30	0.85	0.10	0.18
102F	23.0	0.10	50	124	3,287	0.0111	3.2	30	0.82	0.10	0.18
104G	18.2	0.10	50	134	1,898	0.0104	3.3	30	0.85	0.10	0.18
106G	39.9	0.07	50	134	2,469	0.0090	3.2	30	0.82	0.10	0.16
1H	19.0	0.10	50	134	1,718	0.0090	3.3	30	0.85	0.10	0.18
3H	39.5	0.03	50	134	1,850	0.0112	3.2	30	0.82	0.10	0.12
1I	10.8	0.01	50	124	1,416	0.0169	5.8	30	1.49	0.12	0.13
3I	25.1	0.01	50	124	929	0.0163	5.7	30	1.47	0.11	0.12
5I	12.8	0.01	50	124	459	0.0169	5.7	16	1.97	0.21	0.22
7I	16.5	0.01	50	134	616	0.0136	5.6	16	1.93	0.30	0.31
9I	25.9	0.01	50	134	879	0.0149	5.6	24	1.60	0.22	0.23
11I	26.8	0.01	50	134	968	0.0127	5.5	30	1.41	0.16	0.17
13I	31.1	0.01	50	134	1,180	0.0128	5.3	30	1.36	0.15	0.16
15I	27.7	0.01	50	134	1,443	0.0129	5.2	30	1.34	0.14	0.15
17I	27.6	0.01	50	134	900	0.0119	4.9	30	1.26	0.12	0.13
19I	28.5	0.01	50	134	838	0.0125	4.8	30	1.23	0.11	0.12
21I	27.2	0.01	50	134	1,165	0.0103	4.6	30	1.18	0.10	0.11
23I	34.3	0.01	50	134	1,034	0.0107	4.4	30	1.13	0.10	0.11
25I	38.0	0.01	50	134	1,049	0.0101	4.2	30	1.08	0.10	0.11
27I	39.5	0.01	50	134	2,077	0.0093	3.8	30	0.98	0.10	0.11
29I	29.4	0.05	50	134	1,661	0.0096	3.5	30	0.90	0.10	0.14
31I	39.5	0.10	50	134	1,300	0.0098	3.4	30	0.87	0.10	0.18
33I	39.3	0.18	50	134	1,279	0.0066	3.4	30	0.87	0.10	0.24
35I	26.7	0.10	50	134	878	0.0114	3.3	30	0.85	0.10	0.18
37I	37.9	0.06	50	134	1,809	0.0075	3.2	30	0.82	0.10	0.15
39J	27.8	0.01	50	134	1,645	0.0119	5.2	30	1.34	0.14	0.15
41J	18.8	0.01	50	134	760	0.0129	5.0	30	1.29	0.13	0.14
43J	32.3	0.01	50	134	1,022	0.0128	4.9	30	1.26	0.12	0.13
45J	32.3	0.01	50	134	1,126	0.0115	4.7	30	1.21	0.10	0.11
47J	27.3	0.01	50	134	1,116	0.0106	4.4	30	1.13	0.10	0.11
49J	22.5	0.01	50	134	1,019	0.0104	4.2	30	1.08	0.10	0.11
51J	18.6	0.01	50	134	1,085	0.0098	3.8	30	0.98	0.10	0.11
53J	35.3	0.05	50	134	1,400	0.0103	3.8	30	0.98	0.10	0.14
55J	40.9	0.10	50	134	1,510	0.0079	3.6	30	0.93	0.10	0.18
57J	40.9	0.10	50	134	1,410	0.0090	3.4	30	0.87	0.10	0.18
59J	37.3	0.29	50	134	1,434	0.0091	3.3	30	0.85	0.10	0.33
61J	28.5	0.10	50	134	2,082	0.0073	3.2	30	0.82	0.10	0.18
1K	464.4	0.01	50	120	1,160	0.0500	8.0	8	3.82	0.69	0.69
3K	21.5	0.01	50	124	571	0.0305	6.4	12	2.53	0.30	0.31
5K	39.6	0.01	50	124	1,014	0.0204	6.3	30	1.62	0.14	0.15
7K	39.6	0.01	50	124	1,054	0.0183	6.2	30	1.59	0.14	0.15
9K	30.7	0.01	50	124	957	0.0141	6.0	21	1.82	0.26	0.29
11K	33.2	0.01	50	134	1,511	0.0147	5.9	30	1.52	0.20	0.21
53B	26.8	0.01	50	134	709	0.0130	5.6	19	1.78	0.27	0.28
24K	30.0	0.01	50	134	778	0.0132	5.6	21	1.70	0.25	0.26
26K	32.3	0.01	50	134	881	0.0107	5.6	29	1.46	0.18	0.19
28K	28.9	0.01	50	134	934	0.0105	5.5	30	1.41	0.16	0.17
30K	21.2	0.01	50	134	653	0.0132	5.4	30	1.39	0.16	0.17
64K	31.4	0.01	50	134	784	0.0105	5.5	27	1.49	0.19	0.20
66K	37.2	0.01	50	124	779	0.0108	5.4	30	1.39	0.10	0.11
68K	34.7	0.01	50	124	992	0.0100	5.2	30	1.34	0.10	0.11
70K	19.1	0.01	50	124	975	0.0088	5.0	30	1.29	0.10	0.11
72K	10.9	0.01	50	124	715	0.0070	4.9	30	1.26	0.10	0.11
74K	24.2	0.01	50	124	1,168	0.0128	4.8	30	1.23	0.10	0.11
106K	32.1	0.01	50	124	913	0.0110	4.7	30	1.21	0.10	0.11
108K	37.7	0.01	50	124	1,081	0.0100	4.6	30	1.18	0.10	0.11
110K	39.4	0.01	50	124	1,044	0.0124	4.4	30	1.13	0.10	0.11
112K	39.8	0.01	50	124	1,121	0.0111	4.2	30	1.08	0.10	0.11
114K	40.0	0.01	50	124	940	0.0095	4.0	30	1.03	0.10	0.11
116K	39.8	0.02	50	124	919	0.0099	3.8	30	0.98	0.10	0.12
118K	39.8	0.07	50	134	835	0.0198	3.6	30	0.93	0.10	0.16
120K	22.4	0.09	50	134	1,042	0.0077	3.5	30	0.90	0.10	0.17
15B	38.1	0.09	50	134	1,212	0.0083	3.5	30	0.90	0.10	0.17
153K	38.8	0.08	50	134	2,066	0.0097	3.4	30	0.87	0.10	0.16
155K	27.3	0.09	50	134	1,710	0.0088	3.3	30	0.85	0.10	0.17
157K	22.1	0.10	50	134	1,697	0.0087	3.2	30	0.82	0.10	0.18
6B	39.7	0.10	50	134	1,115	0.0092	3.2	30	0.82	0.10	0.18
175K	28.5	0.10	50	134	1,834	0.0061	3.2	30	0.82	0.10	0.18
13L	28.8	0.01	50	134	659	0.0212	6.6	12	2.61	0.41	0.41
15L	24.8	0.01	50	134	724	0.0209	6.5	12	2.57	0.40	0.41
17L	25.3	0.01	50	134	1,152	0.0170	6.4	21	1.95	0.30	0.31
19L	21.3	0.01	50	134	1,374	0.0164	6.2	29	1.62	0.23	0.24
21L	17.9	0.01	50	134	1,523	0.0158	6.0	30	1.54	0.20	0.21
32M	935.0	0.90	50	120	1,000	0.2000	8.0	5	4.77	0.75	0.89
34M	31.7	0.01	50	134	1,319	0.0217	6.6	21	2.01	0.31	0.32
36M	29.5	0.01	50	134	1,114	0.0194	6.4	20	1.98	0.31	0.32
38M	27.9	0.01	50	134	1,014	0.0181	6.2	20	1.93	0.30	0.31
40M	39.2	0.01	50	134	1,409	0.0155	6.1	30	1.57	0.21	0.22

Subarea	Area (acres)	% Imp	Storm Freq.	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd
68B	23.0	0.01	50	134	885	0.0208	6.0	18	1.96	0.30	0.31
53M	18.1	0.01	50	134	1,259	0.0092	5.8	30	1.49	0.19	0.20
64B	24.1	0.01	50	134	934	0.0115	5.7	29	1.49	0.19	0.20
60M	21.5	0.01	50	134	1,075	0.0132	5.6	30	1.44	0.17	0.18
42N	959.0	0.01	50	120	2,000	0.0500	8.0	12	3.16	0.66	0.66
44N	39.5	0.01	50	134	684	0.0517	6.6	10	2.84	0.44	0.44
46N	38.9	0.01	50	134	702	0.0262	6.5	12	2.57	0.40	0.41
48N	37.9	0.01	50	134	938	0.0231	6.4	15	2.28	0.36	0.37
50N	32.3	0.01	50	134	1,933	0.0092	6.2	30	1.59	0.22	0.23
55O	35.7	0.01	50	134	2,369	0.0122	6.2	30	1.59	0.22	0.23
57O	19.0	0.01	50	134	1,288	0.0125	6.1	30	1.57	0.21	0.22
76P	199.8	0.01	50	120	640	0.0500	8.0	6	4.38	0.73	0.73
78P	26.5	0.01	50	124	1,220	0.0087	6.6	30	1.70	0.16	0.17
80P	39.7	0.01	50	134	2,419	0.0185	6.4	30	1.64	0.23	0.24
67B	40.0	0.01	50	134	949	0.0200	6.2	18	2.03	0.31	0.32
67P	40.0	0.01	50	134	856	0.0115	6.4	17	2.15	0.33	0.34
89P	40.0	0.01	50	134	1,066	0.0130	5.9	27	1.59	0.22	0.23
91P	40.0	0.01	50	134	1,323	0.0100	5.8	30	1.49	0.19	0.20
93P	38.5	0.01	50	134	1,231	0.0098	5.6	30	1.44	0.17	0.18
95P	32.9	0.01	50	124	853	0.0100	5.5	30	1.41	0.10	0.11
97P	32.3	0.01	50	124	903	0.0083	5.3	30	1.36	0.10	0.11
99P	36.0	0.01	50	124	1,173	0.0077	5.1	30	1.31	0.10	0.11
101P	22.9	0.01	50	124	832	0.0121	5.0	30	1.29	0.10	0.11
103P	12.6	0.01	50	124	949	0.0106	4.8	30	1.23	0.10	0.11
82Q	40.0	0.01	50	134	1,582	0.0272	6.6	24	1.88	0.29	0.30
84Q	40.0	0.01	50	134	1,847	0.0211	6.4	30	1.64	0.23	0.24
122R	21.6	0.01	50	134	1,940	0.0123	5.4	30	1.39	0.16	0.17
124R	32.5	0.01	50	134	1,189	0.0132	5.3	30	1.36	0.15	0.16
126R	23.9	0.01	50	134	803	0.0128	5.2	30	1.34	0.14	0.15
128R	28.8	0.01	50	134	966	0.0104	5.3	30	1.36	0.15	0.16
130R	29.3	0.01	50	134	795	0.0096	5.0	30	1.29	0.13	0.14
132R	27.5	0.01	50	134	759	0.0105	4.9	30	1.26	0.12	0.13
134R	27.3	0.01	50	134	740	0.0098	4.8	30	1.23	0.11	0.12
136R	29.4	0.01	50	134	849	0.0100	4.7	30	1.21	0.10	0.11
138R	36.9	0.01	50	134	960	0.0102	4.6	30	1.18	0.10	0.11
140R	27.6	0.01	50	134	705	0.0125	4.4	30	1.13	0.10	0.11
142R	36.0	0.01	50	134	986	0.0104	4.2	30	1.08	0.10	0.11
144R	39.6	0.01	50	134	1,078	0.0094	3.9	30	1.00	0.10	0.11
146R	27.4	0.01	50	134	693	0.0144	3.6	30	0.93	0.10	0.11
148R	27.6	0.08	50	134	1,266	0.0097	3.6	30	0.93	0.10	0.16
150R	20.7	0.10	50	134	1,379	0.0096	3.5	30	0.90	0.10	0.18
17B	39.1	0.09	50	134	1,212	0.0083	3.4	30	0.87	0.10	0.17
159S	39.3	0.10	50	134	2,302	0.0110	3.3	30	0.85	0.10	0.18
161S	36.7	0.10	50	134	2,012	0.0121	3.2	30	0.82	0.10	0.18
163T	16.1	0.10	50	134	1,839	0.0088	3.4	30	0.87	0.10	0.18
165T	28.5	0.10	50	134	887	0.0119	3.4	30	0.87	0.10	0.18
167T	38.0	0.10	50	134	1,078	0.0088	3.2	30	0.82	0.10	0.18
169T	39.8	0.10	50	134	1,337	0.0120	3.2	30	0.82	0.10	0.18
171T	29.2	0.10	50	134	1,813	0.0098	3.2	30	0.82	0.10	0.18
177U	29.4	0.10	50	134	3,079	0.0082	3.2	30	0.82	0.10	0.18
178U	29.1	0.10	50	134	2,590	0.0098	3.2	30	0.82	0.10	0.18
180U	31.8	0.06	50	134	2,207	0.0112	3.2	30	0.82	0.10	0.15
182U	21.3	0.03	50	134	2,448	0.0081	3.2	30	0.82	0.10	0.12
1V	23.8	0.08	50	134	1,412	0.0103	3.2	30	0.82	0.10	0.16
3V	39.4	0.03	50	134	1,046	0.0115	3.2	30	0.82	0.10	0.12
5V	39.9	0.06	50	134	892	0.0100	3.2	30	0.82	0.10	0.15
7V	40.0	0.06	50	134	964	0.0100	3.2	30	0.82	0.10	0.15
1W	24.1	0.01	50	124	1,848	0.0105	5.2	30	1.34	0.10	0.11
3W	22.3	0.01	50	124	1,007	0.0107	5.0	30	1.29	0.10	0.11
5W	26.9	0.01	50	124	1,111	0.0099	4.8	30	1.23	0.10	0.11
7W	24.7	0.01	50	124	1,118	0.0071	4.6	30	1.18	0.10	0.11
9W	35.1	0.01	50	124	1,301	0.0100	4.4	30	1.13	0.10	0.11
11W	24.8	0.02	50	124	779	0.0075	4.3	30	1.11	0.10	0.12
13W	36.2	0.05	50	124	915	0.0114	4.2	30	1.08	0.10	0.14
15W	33.0	0.07	50	124	796	0.0139	4.0	30	1.03	0.10	0.16
17W	39.5	0.10	50	124	930	0.0120	3.8	30	0.98	0.10	0.18
19W	32.8	0.10	50	124	774	0.0094	3.6	30	0.93	0.10	0.18
21W	35.4	0.10	50	124	1,066	0.0082	3.6	30	0.93	0.10	0.18
23W	19.1	0.10	50	124	860	0.0063	3.5	30	0.90	0.10	0.18
25W	11.4	0.10	50	134	684	0.0073	3.5	30	0.90	0.10	0.18
27W	22.7	0.10	50	134	1,949	0.0103	3.4	30	0.87	0.10	0.18
4B	15.1	0.10	50	134	942	0.0098	3.4	30	0.87	0.10	0.18
38W	19.2	0.06	50	134	1,430	0.0096	3.3	30	0.85	0.10	0.15
2B	27.6	0.01	50	134	1,623	0.0080	3.2	30	0.82	0.10	0.11
29X	7.3	0.10	50	124	1,088	0.0076	3.6	30	0.93	0.10	0.18
31X	23.1	0.10	50	124	882	0.0135	3.5



DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: RCE NO. 70991 DATE 11/03/10
CHECKED BY: DATE 11/3/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Proposed Sht 2

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

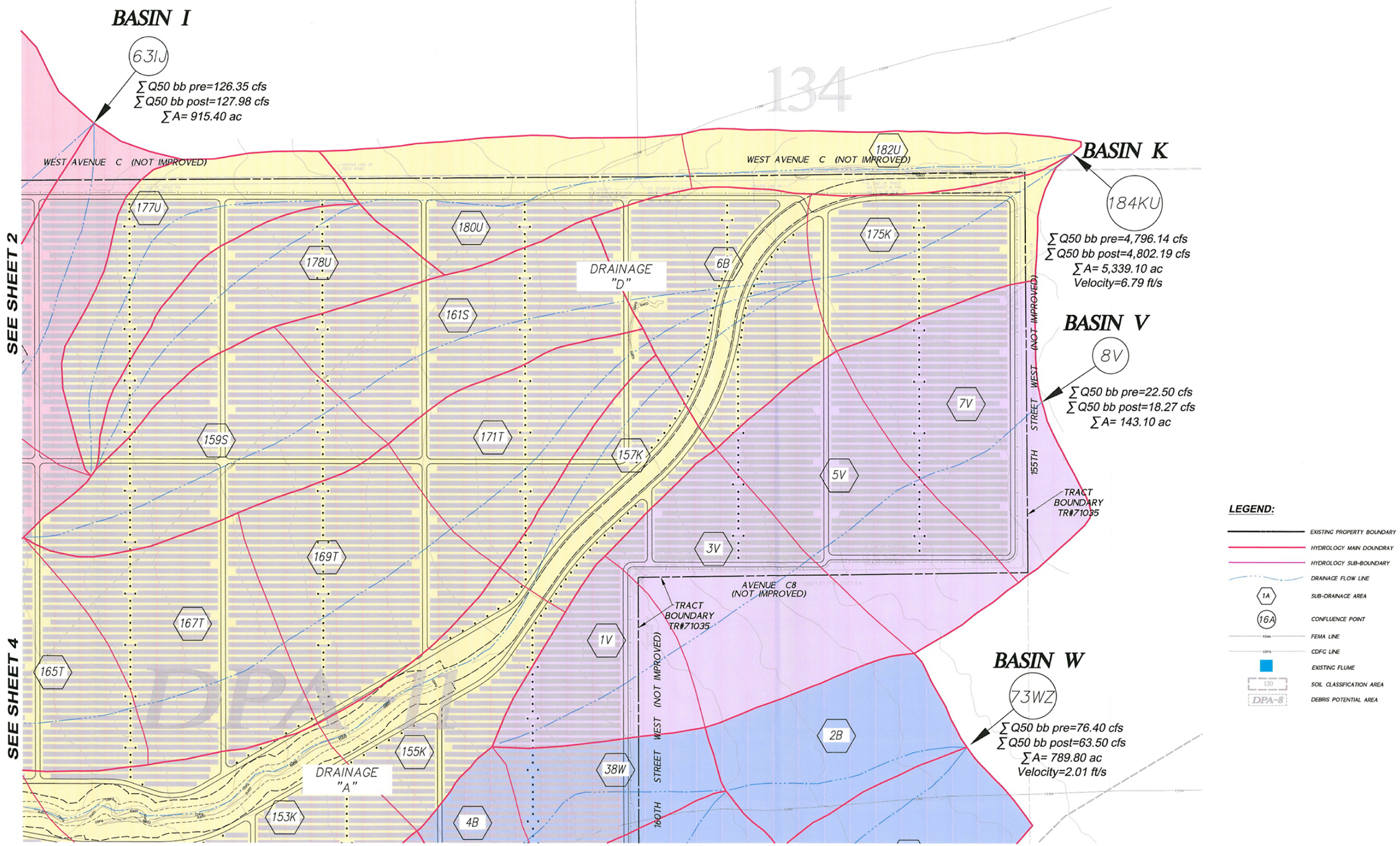
PLANS PREPARED BY:
PSOMAS
26480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www. psomas.com
ERIK WINATA R.C.E. NO. C 67285 10/19/09 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
PROPOSED HYDROLOGY STUDY
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 2 OF 5



DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 70891 DATE 1/27/10
CHECKED BY: _____ DATE 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Proposed Sht 3

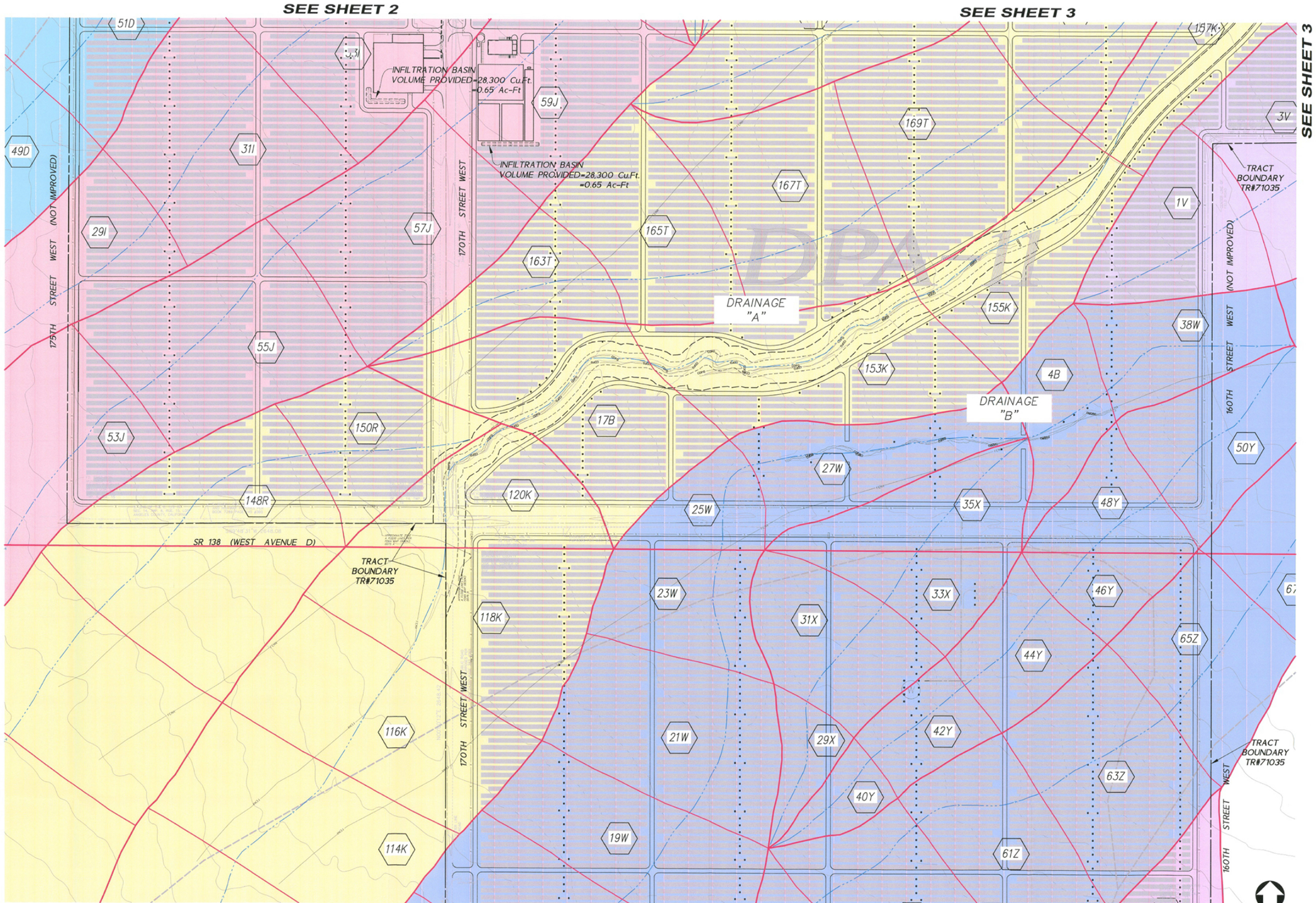
PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA R.C.E. NO. C 67285 DATE 12/11/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
PROPOSED HYDROLOGY STUDY
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 3 OF 5



LEGEND:

- EXISTING PROPERTY BOUNDARY
- HYDROLOGY MAIN DOUNDRAY
- HYDROLOGY SUB-BOUNDARY
- DRAINAGE FLOW LINE
- 1A SUB-DRAINAGE AREA
- 16A CONFLUENCE POINT
- FEMA FEMA LINE
- CDFC CDFC LINE
- EXISTING FLUME
- 120 DPA-8 SOIL CLASSIFICATION AREA
- DEBRIS POTENTIAL AREA

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY

APPROVED BY: _____ RCE NO. 70041 DATE 1/27/10
CHECKED BY: _____ DATE 1/27/10

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Proposed sht 4

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com

ERIK WINATA R.C.E. NO. C 67285 12/16/09 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA

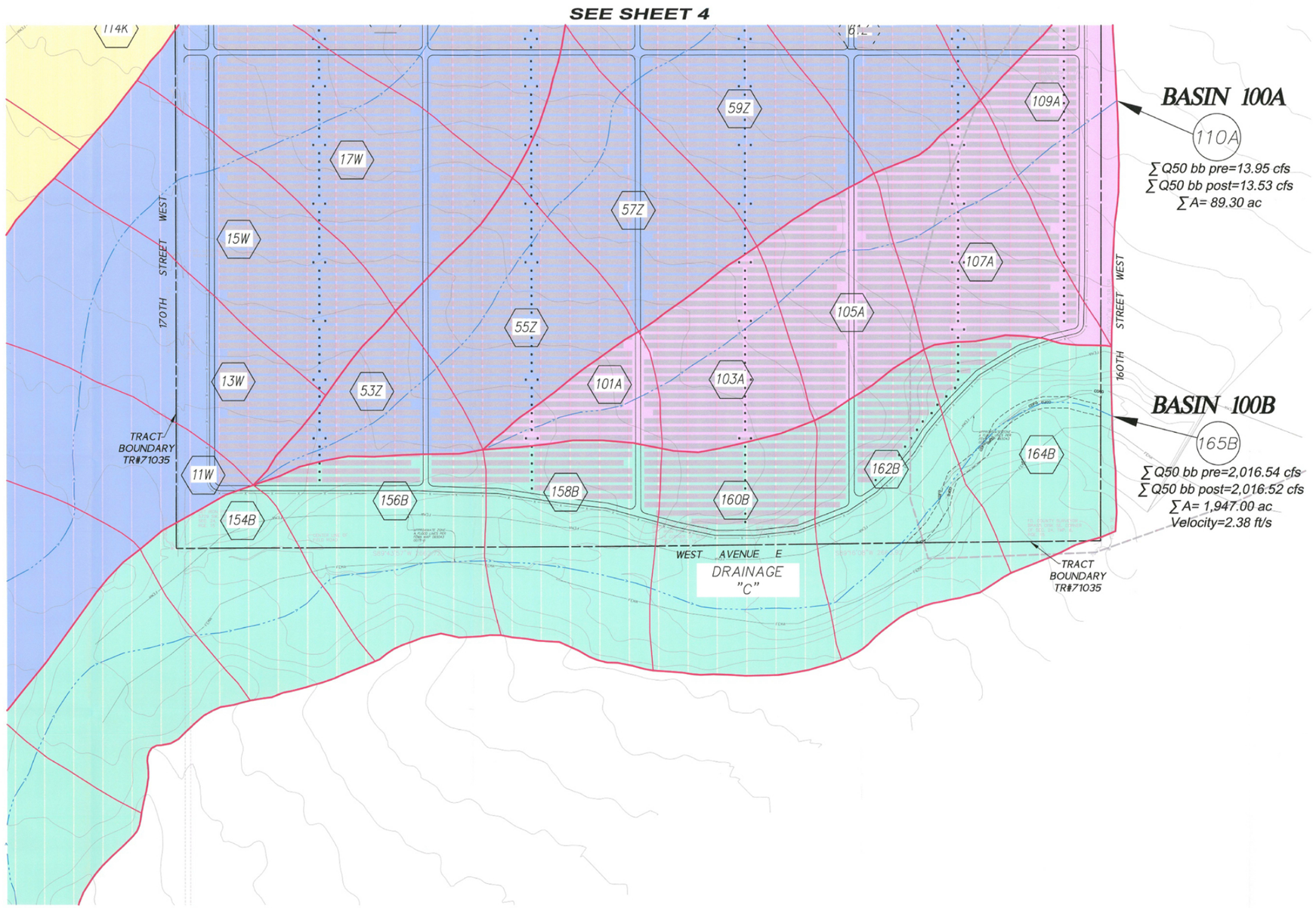
PROPOSED HYDROLOGY STUDY

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO: 1NEX010100

SHEET 4 OF 5

FEET 200 100 0 200 400
INCHES 1 1/2 0 1 2



LEGEND:

- EXISTING PROPERTY BOUNDARY
- HYDROLOGY MAIN DOUNDRAY
- HYDROLOGY SUB-BOUNDARY
- DRAINAGE FLOW LINE
- 1A — SUB-DRAINAGE AREA
- A — DRAINAGE AREA
- FEMA — FEMA LINE
- CDFG — CDFG LINE
- EXISTING FLUME
- D0 — SOIL CLASSIFICATION AREA
- DPA-8 — DEBRIS POTENTIAL AREA

FEET: 200 100 0 200 400
INCHES: 1 1/2 0 1 2

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 20191 DATE 1/20/10
CHECKED BY: _____ DATE 1/20/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Proposed Sht 5

REGISTERED PROFESSIONAL ENGINEER — ERIK WINATA — No. C-67285 — Exp. 09/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA — R.C.E. NO. C 67285 — DATE 12/19/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA

PROPOSED HYDROLOGY STUDY

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 5 OF 5

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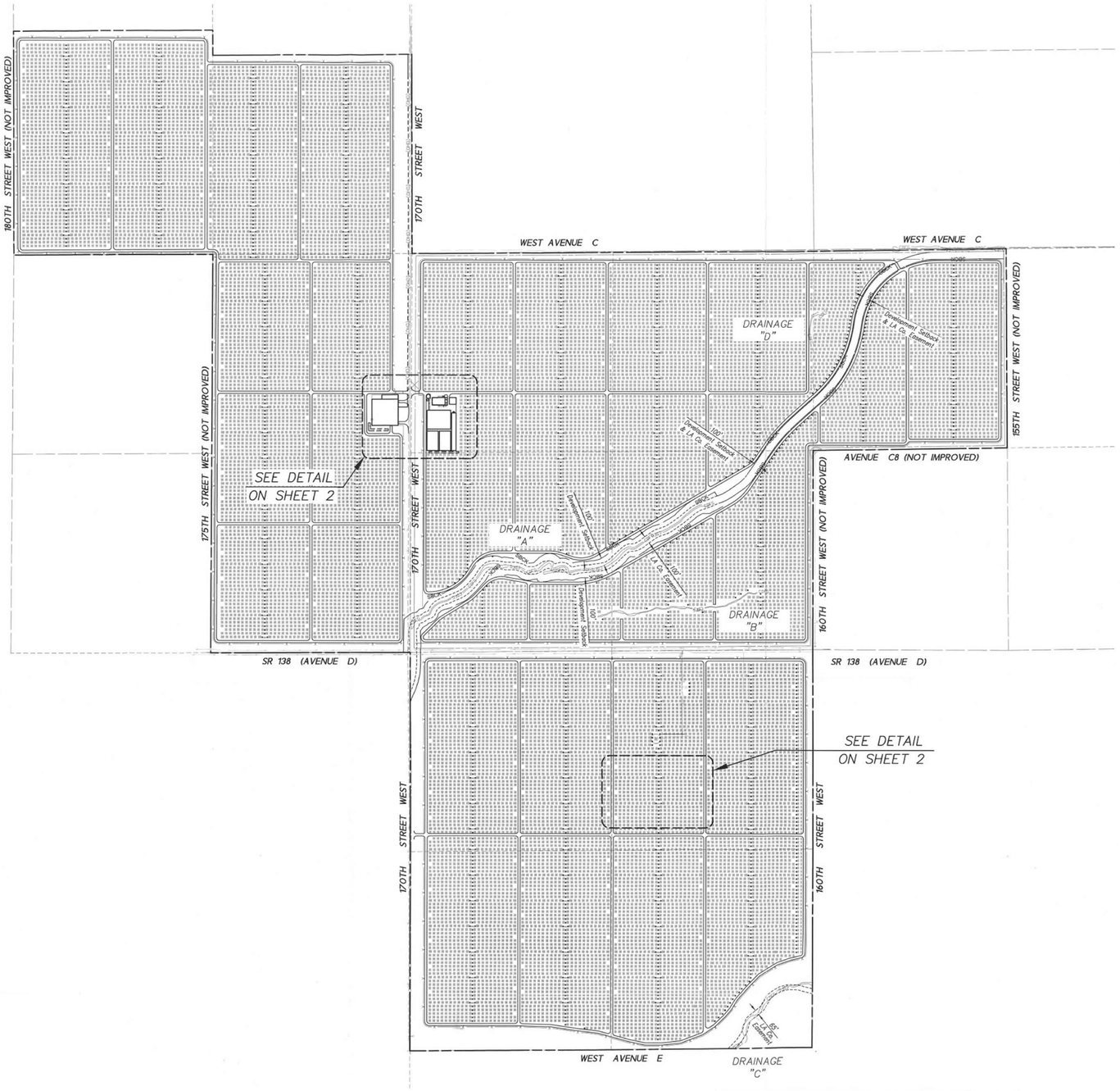

LEGEND:

- EXISTING PROPERTY BOUNDARY
- CDFG — CDFG LINE
- SBCK — DEVELOPMENT SETBACK (100FT FROM CDFG LINES)
- 100FT WIDE EASEMENT

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 76081 DATE 1/07/10
CHECKED BY: _____ DATE 1/07/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Details 1

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www. psomas.com
ERIK WINATA R.C.E. NO. C 67285 12/14/09 DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
SOLAR PANEL LAYOUT (PROJECT SITE PLAN)
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 1 OF 2

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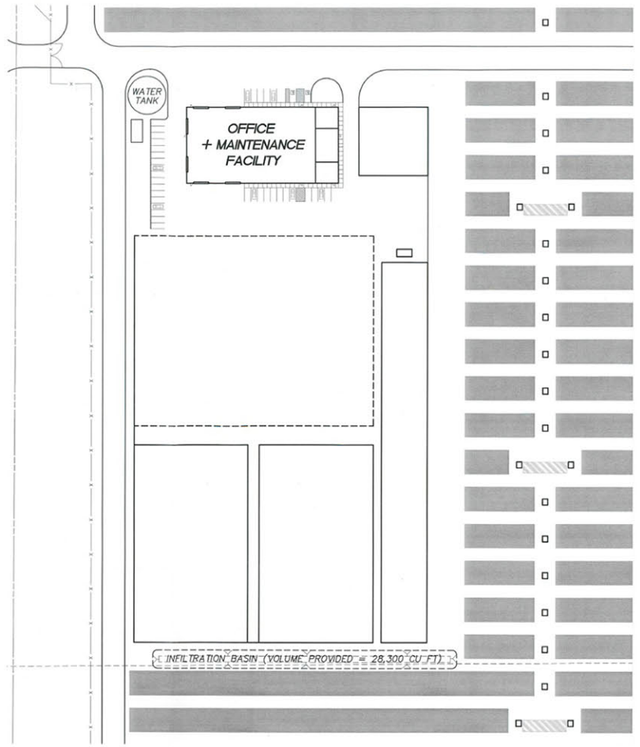
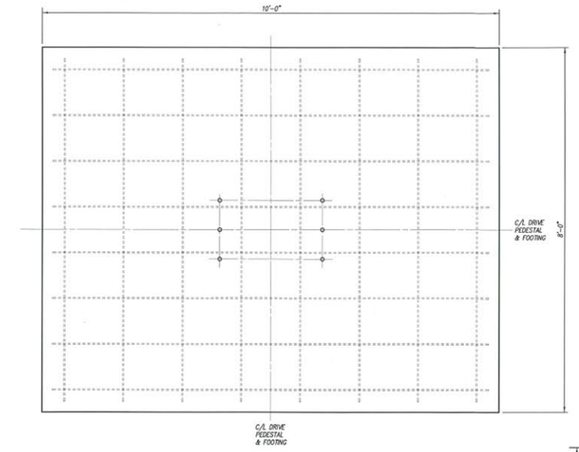
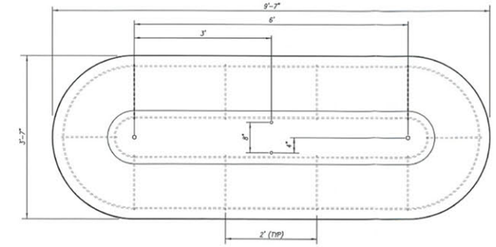


OFFICE AND MAINTENANCE FACILITY
NOT TO SCALE



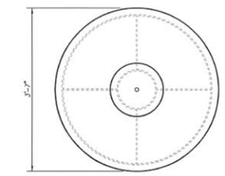
PLAN

4 T-20 DRIVE MOTOR FOUNDATION
NOT TO SCALE



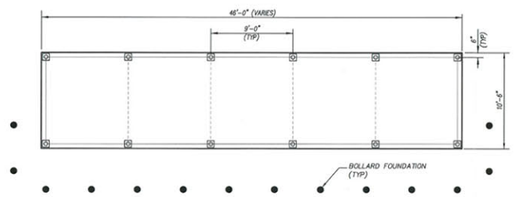
PLAN

3 T-20 TRACKER CAST-IN-PLACE OR PRECAST NORTH FOUNDATION
NOT TO SCALE



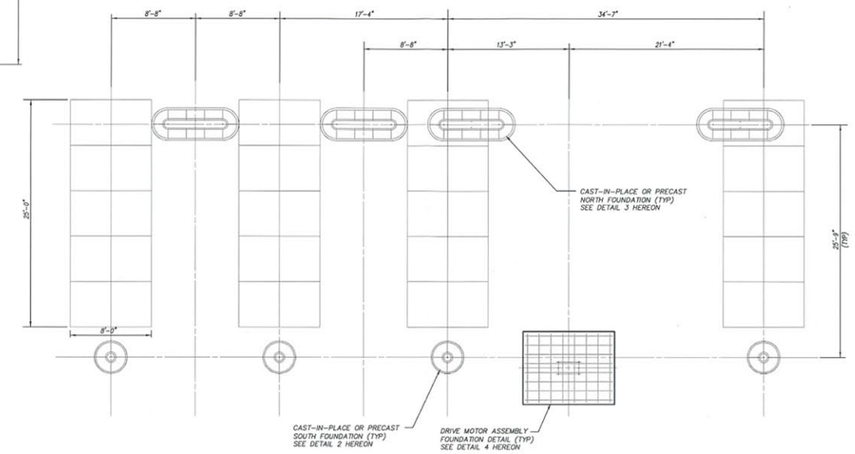
PLAN

2 T-20 TRACKER CAST-IN-PLACE OR PRECAST SOUTH FOUNDATION
NOT TO SCALE



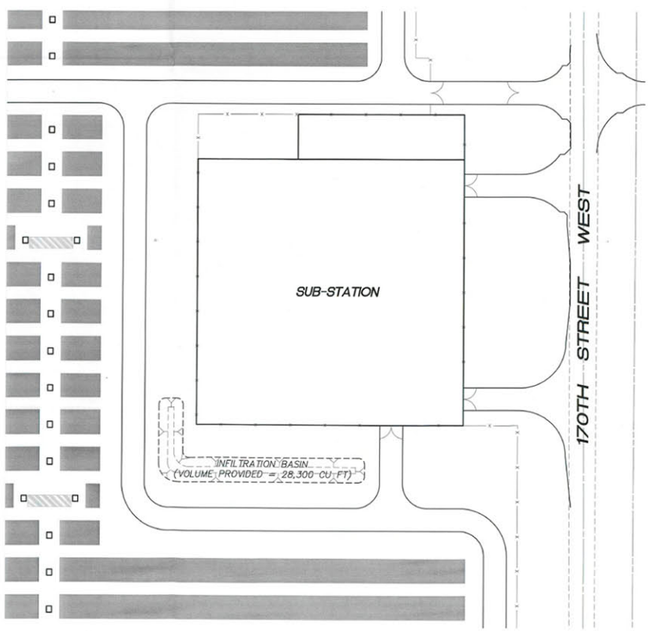
PLAN

5 EQUIPMENT PAD FOUNDATION DETAIL
NOT TO SCALE



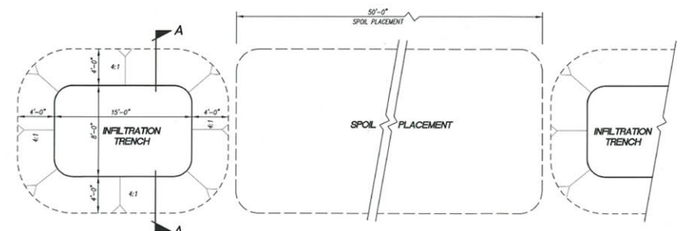
PLAN

1 T-20 TRACKER FOUNDATION SPACING DETAILS
NOT TO SCALE



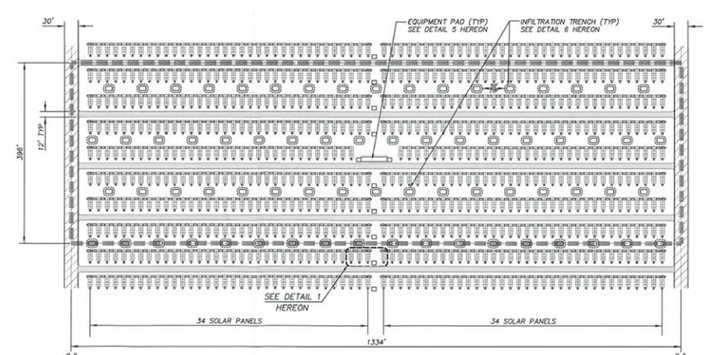
SUB-STATION LAYOUT
NOT TO SCALE

SECTION A-A



PLAN

6 INFILTRATION TRENCH DETAIL
NOT TO SCALE



SOLAR PANEL LAYOUT
NOT TO SCALE

PROJECT SAMPLE AREA	= 1334' x 398' = 528,264 SF = 12.12 AC
POST DEVELOPMENT IMPERVIOUS AREAS	
• SOLAR PANEL BALLAST FOUNDATION	= (10.08 SF)(472) + (31.58 SF)(486) = 20,105.64 SF
• DRIVE MOTOR ASSEMBLY FOUNDATION	= (80 SF)(8) = 640 SF
• EQUIPMENT CABINET PAD FOUNDATION	= 483 SF
• SOLAR PANEL EFFECTIVE IMPERVIOUS AREA (ASSUME 35% OF SURFACE)	= (35%)(200 SF)(472) = 33,040 SF
TOTAL IMPERVIOUS AREA	= 54,268.64 SF = 1.25 AC
IMPERVIOUS FACTOR FOR PROJECT SAMPLE AREA = 1.25/12.12 = 0.10	

• VOLUME OF SINGLE INFILTRATION TRENCH	= 224 CU. FT.
• TOTAL # OF TRENCHES PER 12.12 AC	= 61
• TOTAL VOLUME PROVIDED PER 12.12 AC	= 13,664 CU. FT.

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 67285 DATE 12/21/10
CHECKED BY: _____ DATE 12/23/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Details 2

LEGEND:

- 30 FT WIDE DIRT ACCESS ROAD
- 12 FT WIDE DIRT CONSTRUCTION ACCESS ROAD
- PROJECT SAMPLE AREA
- INFILTRATION TRENCH

REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. C-67285 Exp. 09/30/10 — STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA — R.C.E. NO. C 67285 — DATE 12/14/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA

SOLAR PANEL LAYOUT & DETAILS

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 2 OF 2

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APPENDIX C

FLUME AND CULVERT ANALYSIS

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES

DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES

CALIFORNIA AQUEDUCT

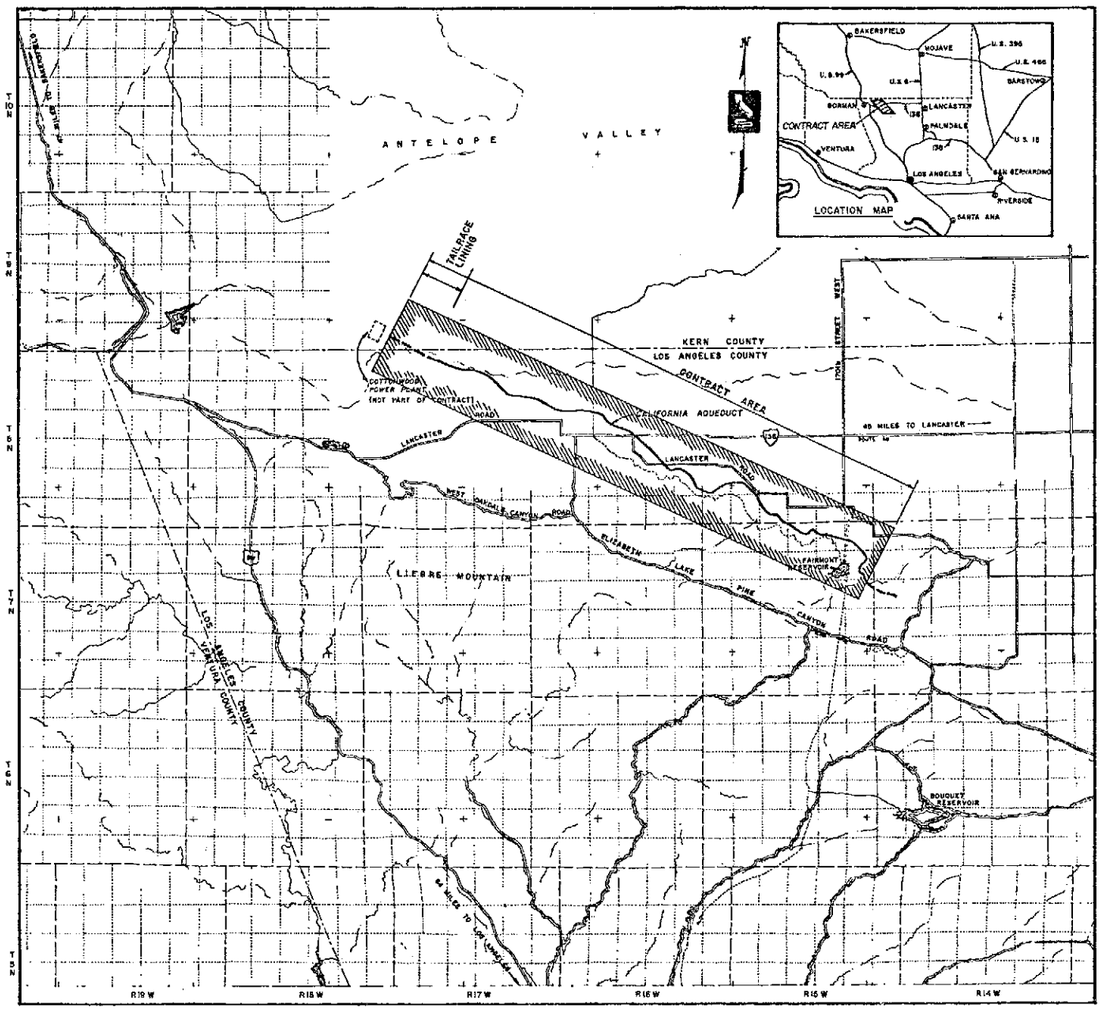
MOJAVE DIVISION

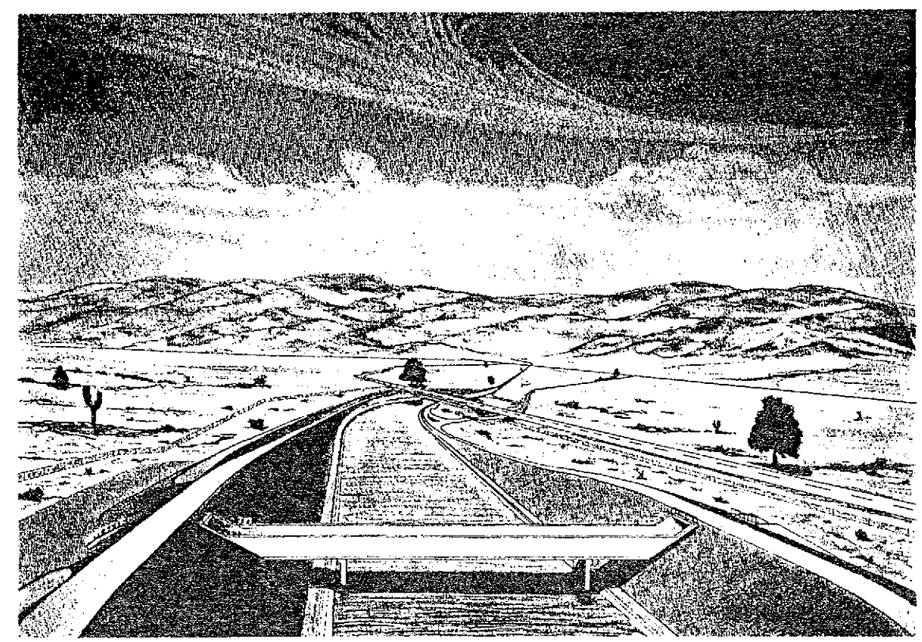
CANAL-STA. 21 + 00 TO STA. 977 + 35

COTTONWOOD POWER PLANT TO FAIRMONT

MILE 307.7 TO MILE 325.8

SPECIFICATION NO. 67-10





REDUCED PLANS

SAFETY — as Necessary as WATER

SUBMITTED: CHIEF, DESIGN SECTION, SO. DIST. REG. C.E. NO. 8477

APPROVAL RECOMMENDED: CHIEF, D & C BRANCH, SO. DIST. REG. C.E. NO. 7192

APPROVED: DATE: JUN 16 1967 DISTRICT ENGINEER, SO. DIST. REG. C.E. NO. 6000

APPROVED: DATE: JUN 16 1967 ASST. CHIEF ENGINEER, D&C REG. C.E. NO. 8906

APPROVED: DATE: JUN 16 1967 DEPUTY DIRECTOR STATE WATER PROJECTS REG. C.E. NO. 10676

REVIEWED — STAFF ENGINEERING, P.E.	REV.	DATE	DESCRIPTION	SUB.	APPD
BY:		12-7-73			
DATE:	1	12-27-73			

DRAWING NO. N-6KI-1

SHEET NO. 1

SPEC. NO. 67-10

SHEET NO.	DRAWING NO.	TITLE
1	N-6K1-1	COVER SHEET
△2	N-6K1-2	LIST OF DRAWINGS
△3	N-6K1-3	LIST OF DRAWINGS
3.1 N-6K1-5, 3.2 N-6K1-6, 3.3 N-6K1-7, 3.4 N-6K1-8		LIST OF SHOP DRAWINGS - CANAL - STA. 21+00 TO 977+35
4	N-6K1-4	VICINITY MAP
5	N-6B1-1	TYPICAL CANAL SECTIONS - STA. 21 + 00 TO STA. 96 + 30
6	N-6B1-2	TYPICAL CANAL SECTIONS - STA. 96 + 30 TO STA. 977 + 35
△6.1	N-6B1-6	TYPICAL CANAL SECTIONS (OVER-EXCAVATION) - STA. 193+00 TO STA. 263+00
7	N-6B1-3	TYPICAL CANAL DETAILS
△8	N-6B1-4	OPERATING ROAD - TYPICAL SECTIONS AND DETAILS
9	N-6B1-5	SLOPE DRAINS
10	N-6F1-1	PLAN AND PROFILE - STA. 21 + 00 TO STA. 55 + 00
△11	N-6F1-2	PLAN AND PROFILE - STA. 55 + 00 TO STA. 115 + 00
△12	N-6F1-3	PLAN AND PROFILE - STA. 115 + 00 TO STA. 175 + 00
△13	N-6F1-4	PLAN AND PROFILE - STA. 175 + 00 TO STA. 230 + 00
△14	N-6F1-5	PLAN AND PROFILE - STA. 230 + 00 TO STA 290 + 00
△15	N-6F1-6	PLAN AND PROFILE - STA. 290 + 00 TO STA 344 + 00
△16	N-6F1-7	PLAN AND PROFILE - STA. 344 + 00 TO STA. 400 + 00
△17	N-6F1-8	PLAN AND PROFILE - STA. 400 + 00 TO STA. 460 + 00
△18	N-6F1-9	PLAN AND PROFILE - STA. 460 + 00 TO STA. 520 + 00
△19	N-6F1-10	PLAN AND PROFILE - STA. 520 + 00 TO STA. 580 + 00
△20	N-6F1-11	PLAN AND PROFILE - STA. 580 + 00 TO STA. 640 + 00
△21	N-6F1-12	PLAN AND PROFILE - STA. 640 + 00 TO STA. 700 + 00
△22	N-6F1-13	PLAN AND PROFILE - STA. 700 + 00 TO STA. 760 + 00
△23	N-6F1-14	PLAN AND PROFILE - STA. 760 + 00 TO STA. 820 + 00
△24	N-6F1-15	PLAN AND PROFILE - STA. 820 + 00 TO STA. 880 + 00
△25	N-6F1-16	PLAN AND PROFILE - STA. 880 + 00 TO STA. 935 + 00
△26	N-6F1-17	PLAN AND PROFILE - STA. 935 + 00 TO STA. 977 + 35
△27	N-6N1-1	R.C. BOX SIPHON NO. 1 - STA. 144 + 50 - GENERAL PLAN AND SECTION
△28	N-6N2-1	R.C. BOX SIPHON NO. 2 - STA. 240 + 50 - GENERAL PLAN AND SECTION
△29	N-6N3-1	R.C. BOX SIPHON NO. 3 - STA. 334 + 00 - GENERAL PLAN AND SECTION
△30	N-6N4-1	R.C. BOX SIPHONS STA. 144 + 50, 240 + 50, 334 + 00 - PLAN AND LONGITUDINAL SECTION
31	N-6N4-2	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - INLET TRANSITION
32	N-6N4-3	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - OUTLET TRANSITION
33	N-6N4-4	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 BOX STRUCTURES - PLAN
34	N-6N4-5	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - CROSS SECTIONS
35	N-6N4-6	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - LONGITUDINAL SECTIONS
36	N-6N4-7	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - MISCELLANEOUS DETAILS
△37	N-6N4-8	R.C. BOX SIPHONS - STA. 144 + 50, 240 + 50, 334 + 00 - FLOOD PROTECTION WALL
38	N-6D1-1	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - GENERAL PLAN AND SECTION
39	N-6D1-2	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - INLET TRANSITION
40	N-6D1-3	CHECK STRUCTURES - STA 228 + 00, 498 + 00, 758 + 00 - OUTLET TRANSITION
41	N-6D1-4	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - HOIST PLATFORM AND WALL DETAILS
42	N-6D1-5	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - HINGE AND MISCELLANEOUS DETAILS
43	N-6D1-6	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - TRUNNION SUPPORT BEAM AND MISCELLANEOUS DETAILS
44	N-6D1-7	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - FLOAT WELL
45	N-6D1-8	CHECK STRUCTURES - STA 228 + 00, 498 + 00, 758 + 00 - RADIAL GATE DETAILS
46	N-6D1-9	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - RADIAL GATE HINGE DETAILS
47	N-6D1-10	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - RADIAL GATE SEAL AND MISCELLANEOUS DETAILS
△47.1	N-6D1-11	CHECK STRUCTURES - RADIAL GATE EXTENSIONS AND STAFF GAGES
48	N-6L1-1	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - GATE HOIST - GENERAL LAYOUT AND DETAILS
49	N-6L1-2	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - ENGINE - GENERATOR SET LAYOUT AND DETAILS
△50	N-6T1-1	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - ELECTRICAL PLAN
△51	N-6T1-2	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - ELECTRICAL - DETAILS AND GROUNDING
△52	N-6T1-3	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - ELECTRICAL - SCHEMATIC DIAGRAM
△53	N-6T1-4	CHECK STRUCTURES - STA 228 + 00, 498 + 00, 758 + 00 - ELECTRICAL - WIRING DIAGRAM
54	N-6T1-5	CHECK STRUCTURES - STA. 228 + 00, 498 + 00, 758 + 00 - CATHODIC PROTECTION
55	N-6S1-1	CONTROL BUILDING - ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS
56	N-6S1-2	CONTROL BUILDING - STRUCTURAL FOUNDATION, FLOOR PLAN AND DETAILS
57	N-6D2-1	THREE POINTS TURNOUT - PLAN AND SECTION
58	N-6D3-1	FAIRMONT TURNOUT - PLAN AND SECTION
59	N-6D4-1	THREE POINTS TURNOUTS - STRUCTURAL DETAILS
60	N-6D5-1	FAIRMONT TURNOUT STRUCTURAL DETAILS
61	N-6D6-1	MISCELLANEOUS TURNOUT DETAILS
62	N-6D6-2	TURNOUT METALWORK - INSTALLATION SCHEDULE AND DETAILS
△63	N-6C1-1	5' OVERCHUTE - STA. 892 + 30 - PLAN AND LONGITUDINAL SECTION
△64	N-6C2-1	5' OVERCHUTE - STA 958+50 - PLAN AND LONGITUDINAL SECTION
△65	N-6C3-1	5' OVERCHUTES - INLET STRUCTURE DETAILS
66	N-6C3-2	5' OVERCHUTES - FLUME AND ABUTMENT DETAILS
△67	N-6C3-3	5' OVERCHUTES - OUTLET STRUCTURE DETAILS
△68	N-6C4-1	10' OVERCHUTE - STA. 517 + 15 - PLAN AND LONGITUDINAL SECTION
△69	N-6C5-1	10' OVERCHUTE - STA. 799 + 95 - PLAN AND LONGITUDINAL SECTION
△70	N-6C6-1	10' OVERCHUTE - STA. 935 + 60 - PLAN AND LONGITUDINAL SECTION
△71	N-6C7-1	10' OVERCHUTES - STA. 517 + 15, 799 + 95 - INLET STRUCTURE DETAILS
△72	N-6C8-1	10' OVERCHUTE - STA. 935 + 60 - INLET STRUCTURE DETAILS
△73	N-6C9-1	10' OVERCHUTES - FLUME AND ABUTMENT DETAILS
△74	N-6C10-1	10' OVERCHUTES - STA. 517 + 15, 799 + 95 - OUTLET STRUCTURE DETAILS
△75	N-6C11-1	10' OVERCHUTE - STA. 935 + 60 - OUTLET STRUCTURE DETAILS
△76	N-6C12-1	15' OVERCHUTE - STA. 376 + 50 - PLAN AND LONGITUDINAL SECTION
△77	N-6C13-1	15' OVERCHUTE - STA. 659 + 30 - PLAN AND LONGITUDINAL SECTION
△78	N-6C14-1	15' OVERCHUTE - STA. 711 + 85 - PLAN AND LONGITUDINAL SECTION
△79	N-6C15-1	15' OVERCHUTES - INLET STRUCTURE DETAILS
80	N-6C15-2	15' OVERCHUTES - FLUME AND ABUTMENT DETAILS
△80.1	N-6C15-4	15' OVERCHUTES - PIER AND ABUTMENT DETAIL
△81	N-6C15-3	15' OVERCHUTES - OUTLET STRUCTURE DETAILS
△82	N-6C16-1	26' OVERCHUTE - STA. 565 + 15 - PLAN AND LONGITUDINAL SECTION
△83	N-6C17-1	26' OVERCHUTE - STA. 597 + 45 - PLAN AND LONGITUDINAL SECTION
△84	N-6C18-1	26' OVERCHUTE - STA. 773 + 00 - PLAN AND LONGITUDINAL SECTION
△85	N-6C19-1	26' OVERCHUTE - STA. 828 + 65 - PLAN AND LONGITUDINAL SECTION
△86	N-6C20-1	30' OVERCHUTE - STA. 188 + 50 - PLAN AND LONGITUDINAL SECTION
△87	N-6C21-1	30' OVERCHUTE - STA. 271 + 30 - PLAN AND LONGITUDINAL SECTION
△88	N-6C22-1	26' - 30' OVERCHUTES - INLET STRUCTURE DETAILS
89	N-6C22-2	26' - 30' OVERCHUTES - FLUME DETAILS
△90	N-6C22-3	26' - 30' OVERCHUTES - PIER AND ABUTMENT DETAILS
△90.1	N-6C22-4	30' OVERCHUTES - PIER AND ABUTMENT DETAILS
△91	N-6C23-1	26' OVERCHUTES - OUTLET STRUCTURE DETAILS
92	N-6C24-1	30' OVERCHUTES - OUTLET STRUCTURE DETAILS

REDUCED PLANS

REV.	DATE	DESCRIPTION	SUB.	APP'D
3	7-12-68	Added drawing - Sheet G.1		
2	9-29-67	Latest drawings - Sheets G.1, G.3.1 & G.3.1		
1	8-7-67	Addendum - Original dwgs. clarified.		
		Corrected or redrawn		

REVIEWED—STAFF ENGINEERING, S.R.

BY: R. F. Tong

DATE:

DESIGNED	DRAWN	CHECKED	REVIEWED
			D. J. Tong

SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

CANAL - STA. 21 + 00 TO STA. 977 + 35

LIST OF DRAWINGS

SUBMITTED: CHIEF, DESIGN SECTION, R.E.S. NO.

APPROVAL RECOMMENDED: CHIEF, R.E.S. DESIGN BRANCH

APPROVAL RECOMMENDED: CHIEF, DESIGN BRANCH, S.W.P.

APPROVED: DATE: CHIEF ENGINEER AND DIRECTOR, RES. & S.W.P. NO. 3400

DRAWING NO. N-6K1-2

SHEET NO. 2

SPEC. NO. 87-10

SHEET NO.	DRAWING NO.	TITLE
△93	N-6C25-1	KING'S CANYON OVERCHUTE - (STA. 754 + 00) - PLAN AND LONGITUDINAL SECTION
△94	N-6C25-2	KING'S CANYON OVERCHUTE - INLET STRUCTURE DETAILS
95	N-6C25-3	KING'S CANYON OVERCHUTE - FLUME DETAILS
△96	N-6C25-4	KING'S CANYON OVERCHUTE - OUTLET STRUCTURE DETAILS
△97	N-6C25-5	KING'S CANYON OVERCHUTE - PIER AND ABUTMENT DETAILS
△98	N-6C26-1	MISCELLANEOUS OVERCHUTE DETAILS
△99	N-6C27-1	48" DIAMETER CULVERT - STA. 858 + 95 - PLAN AND LONGITUDINAL SECTION
△100	N-6C28-1	48" DIAMETER CULVERT - STA 867 + 50 - PLAN AND LONGITUDINAL SECTION
101	N-6C29-1	48" DIAMETER CULVERT - STA. 899 + 25 - PLAN AND LONGITUDINAL SECTION
102	N-6C30-1	48" DIAMETER CULVERT - STA. 858 + 95, 867 + 50, 899 + 25 - INLET AND OUTLET STRUCTURES
103	N-6C31-1	66" DIAMETER CULVERT - STA. 844 + 50 - PLAN AND LONGITUDINAL SECTION
104	N-6C32-1	66" DIAMETER CULVERT - STA. 874 + 75 - PLAN AND LONGITUDINAL SECTION
105	N-6C33-1	66" DIAMETER CULVERT - STA. 913 + 80 - PLAN AND LONGITUDINAL SECTION
106	N-6C34-1	66" DIAMETER CULVERTS - STA. 844+50, 874+75, 913 + 80 - INLET AND OUTLET STRUCTURE DETAILS
107	N-6C35-1	R C BOX CULVERT - STA. 453 + 15 - PLAN AND SECTIONS
108	N-6C36-1	R. C. BOX CULVERT - STA. 488 + 50 - PLAN AND SECTIONS
109	N-6C37-1	R C. BOX CULVERT - STA. 453 + 15, 488 + 50 - INLET AND OUTLET STRUCTURE DETAILS
110	N-6C38-1	REINFORCED CONCRETE PIPE - DETAILS
111	N-6C38-2	REINFORCED CONCRETE PIPE - REINFORCEMENT TABLES
112	N-6C39-1	GENERAL DRAINAGE PLAN - STA. 375 + 00 TO STA. 405 + 00
113	N-6C39-2	GENERAL DRAINAGE PLAN - STA. 405 + 00 TO STA. 438 + 00
114	N-6C39-3	GENERAL DRAINAGE PLAN - STA. 438 + 00 TO STA. 470 + 00
115	N-6C39-4	GENERAL DRAINAGE PLAN - STA. 470 + 00 TO STA 500 + 00
△116	N-6C39-5	GENERAL DRAINAGE PLAN - STA 500 + 00 TO STA 533 + 00
117	N-6C39-6	GENERAL DRAINAGE PLAN - STA. 545 + 00 TO STA 582 + 00
118	N-6C39-7	GENERAL DRAINAGE PLAN - STA 582 + 00 TO STA 613 + 00
119	N-6C39-8	GENERAL DRAINAGE PLAN - STA. 771 + 00 TO STA. 807 + 00
120	N-6C39-9	GENERAL DRAINAGE PLAN - STA. 807 + 00 TO STA 840 + 00
121	N-6C39-10	GENERAL DRAINAGE PLAN - STA. 840 + 00 TO STA. 876 + 00
122	N-6C39-11	GENERAL DRAINAGE PLAN - STA. 876 + 00 TO STA. 912 + 00
△123	N-6C39-12	GENERAL DRAINAGE PLAN - STA. 912 + 00 TO STA 940 + 00
△124	N-6C39-13	GENERAL DRAINAGE PLAN - STA. 940 + 00 TO STA 977 +
125	N-6E1-1	NEENACH BRIDGE - SITE PLAN AND PROFILE
126	N-6E1-2	NEENACH BRIDGE - GENERAL PLAN
127	N-6E1-3	NEENACH BRIDGE - FOUNDATION PLAN
128	N-6E1-4	NEENACH BRIDGE - ABUTMENT DETAILS
129	N-6E1-5	NEENACH BRIDGE - TYPICAL SECTION AND GIRDER LAYOUT
130	N-6E1-6	NEENACH BRIDGE - BOX GIRDER DETAILS NO. 1
131	N-6E1-7	NEENACH BRIDGE - TYPE 1-A RETAINING WALL
132	N-6E1-8	NEENACH BRIDGE - BARRIER RAILING (TYPE 9)
133	N-6E1-9	NEENACH BRIDGE - BRIDGE APPROACH GUARD RAILING TYPE B (DETAILS)
134	N-6E1-10	NEENACH BRIDGE - LOG OF TEST BORING
135	N-6M1-1	ROUTE 48 RECONSTRUCTION - STA. 14 + 75.24 TO STA. 38 + 39.03 - PLAN AND PROFILE
136	N-6M2-1	DETOUR AT NEENACH BRIDGE - STA 14 + 75.32 TO STA. 38 + 39.03 - PLAN AND PROFILE
137	N-6E2-1	300TH STREET WEST BRIDGE - STA. 97 + 39.01 - SITE PLAN AND PROFILE
137.1	N-6E2-7	300 TH STREET WEST BRIDGE - STA. 97+39.01 - SURVEY LAYOUT & GRADING PLAN
138	N-6E2-2	300 TH STREET WEST BRIDGE - GENERAL PLAN
139	N-6E2-3	300 TH STREET WEST BRIDGE - ABUTMENT DETAILS
140	N-6E2-4	300 TH STREET WEST BRIDGE - PIER DETAILS
141	N-6E2-5	300 TH STREET WEST BRIDGE - TYPICAL SECTION
△142	N-6E2-6	300 TH STREET WEST BRIDGE - GIRDER DETAILS
143	N-6E3-1	280 TH STREET WEST BRIDGE - GENERAL PLAN
143.1	N-6E3-5	280 TH STREET WEST BRIDGE - OPERATING ROAD LAYOUT
144	N-6E3-2	280 TH STREET WEST BRIDGE - ABUTMENT DETAILS
145	N-6E3-3	280 TH STREET WEST BRIDGE - TYPICAL SECTION
△146	N-6E3-4	280 TH STREET WEST BRIDGE - GIRDER DETAILS
147	N-6E4-1	260TH STREET WEST BRIDGE - GENERAL PLAN
147.1	N-6E4-5	260TH STREET WEST BRIDGE - OPERATING ROAD LAYOUT
148	N-6E4-2	260TH STREET WEST BRIDGE - ABUTMENT DETAILS
149	N-6E4-3	260TH STREET WEST BRIDGE - TYPICAL SECTION
150	N-6E4-4	260TH STREET WEST BRIDGE - GIRDER DETAILS
△151	N-6E5-1	ELISE STREET BRIDGE - GENERAL PLAN
△152	N-6E5-2	ELISE STREET BRIDGE - ABUTMENT DETAILS
△153	N-6E5-3	ELISE STREET BRIDGE - TYPICAL SECTION
△154	N-6E5-4	ELISE STREET BRIDGE - GIRDER DETAILS
△154.1	N-6E5-5	ELISE STREET BRIDGE APPROACHES
155	N-6E6-1	195TH STREET WEST BRIDGE - GENERAL PLAN
156	N-6E6-2	195TH STREET WEST BRIDGE - ABUTMENT DETAILS
157	N-6E6-3	195TH STREET WEST BRIDGE - TYPICAL SECTION
158	N-6E6-4	195TH STREET WEST BRIDGE - GIRDER DETAILS
159	N-6E7-1	180TH STREET WEST BRIDGE - GENERAL PLAN
160	N-6E7-2	180TH STREET WEST BRIDGE - ABUTMENT DETAILS
161	N-6E7-3	180TH STREET WEST BRIDGE - TYPICAL SECTION
162	N-6E7-4	180TH STREET WEST BRIDGE - GIRDER DETAILS
163	N-6E8-1	GENERAL - TYPE 1 RETAINING WALL
164	N-6E8-2	GENERAL - MISCELLANEOUS DETAILS AND RAILING DETAILS
165	N-6E8-3	GENERAL - STEEL RAILING DETAILS
166	N-6E9-1	LANCASTER ROAD BRIDGE - SITE PLAN AND PROFILE
△167	N-6E10-1	170TH STREET WEST BRIDGE - STA. 916 + 24.40 - SITE PLAN AND PROFILE
168	N-6E10-2	170TH STREET WEST - PLAN AND PROFILE
169	N-6E10-3	170TH STREET WEST - PLAN AND PROFILE
170	N-6E11-1	AVENUE H BRIDGE - SITE PLAN AND PROFILE
△171	N-6H1-1	IRRIGATION PIPELINE CROSSING - STA. 98 + 35 AND STA. 135 + 30 - PLAN AND PROFILE
△172	N-6H2-1	IRRIGATION PIPELINE CROSSING - STA. 216+96 - PLAN AND PROFILE.
△173	N-6H3-1	IRRIGATION PIPELINE CROSSING - STA. 250 + 00 - PLAN AND PROFILE
174	N-6H4-1	WATER PIPELINE CROSSING - STA. 865 + 00 AND STA. 913 + 00 - PLAN AND PROFILE
174.1	N-6H4-2	WATERLINE RECONSTRUCTION - STA. 930+70.86 - PLAN AND PROFILE
175	N-6H5-1	IRRIGATION PIPELINE CROSSING - DETAILS
176	N-6M3-1	FARM ACCESS ROADS - PROFILE
176.1	N-6M3-4	FARM ACCESS ROADS - PROFILE
177	N-6M3-2	FARM ACCESS ROADS - PROFILE
178	N-6M3-3	FARM ACCESS ROADS - TYPICAL SECTION
179	N-6Z1-1	LOS ANGELES AQUEDUCT - PIPE ENCASEMENT - GUARDRAIL DETAILS
△179.1	N-6Z1-2	LOS ANGELES AQUEDUCT CROSSING - ACCESS ROAD
△180	N-6G1-1	EARTHWORK PAYLINES - CANAL AND BRIDGES
△181	N-6G2-1	EARTHWORK PAYLINES - STRUCTURES
△182	N-6G2-2	EARTHWORK PAYLINES - STRUCTURES
△183	N-6G3-1	EARTHWORK PAYLINES - DRAINAGE STRUCTURES
184	N-6J1-1	ALUMINUM AND GALVANIZED PIPE HANDRAILS - DETAILS
185	N-6J2-1	STANDARD FENCING DETAILS - BARBED WIRE
186	N-6J2-2	STANDARD FENCING DETAILS - WOVEN WIRE
187	N-6J2-3	STANDARD FENCING DETAILS - CHAIN LINK
188	N-6N6-1	R.C. BOX SIPHONS - STOP LOGS - STA. 144+50, 240+50, 334+00 - PLAN, SECTION AND DETAILS
189	T-0E1-2	FORMAT FOR C.P.M. TYPE CONTRACTOR'S SCHEDULE
190	N-6J3-1	PROJECT CONSTRUCTION SIGN - ELEVATION
191	N-6J3-2	PROJECT CONSTRUCTION SIGN - DETAILS
		REFERENCE DRAWINGS
192	M-14F2-1	PLAN AND PROFILE - ROADS "X", "Y", & "Z"
193	M-15F1-1	PLAN AND PROFILE - NEENACH AQUEDUCT EMBANKMENT
△	~~194 N-6G4-1~~	~~FAIRMONT BORROW AREA PLAN & SECTION~~ DELETED

REDUCED PLANS

REV.	DATE	DESCRIPTION	SUB.	APP'D
2	9-28-69	Added drawings - Sheets 150.1 & 179.1		
1	6-7-67	Addendum - Original dwgs. clarified, corrected and been dwg. incl. list		

REVIEWED—STAFF ENGINEERING, BR.

DESIGNED | DRAWN | CHECKED | REVIEWED D. J. Tong

SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

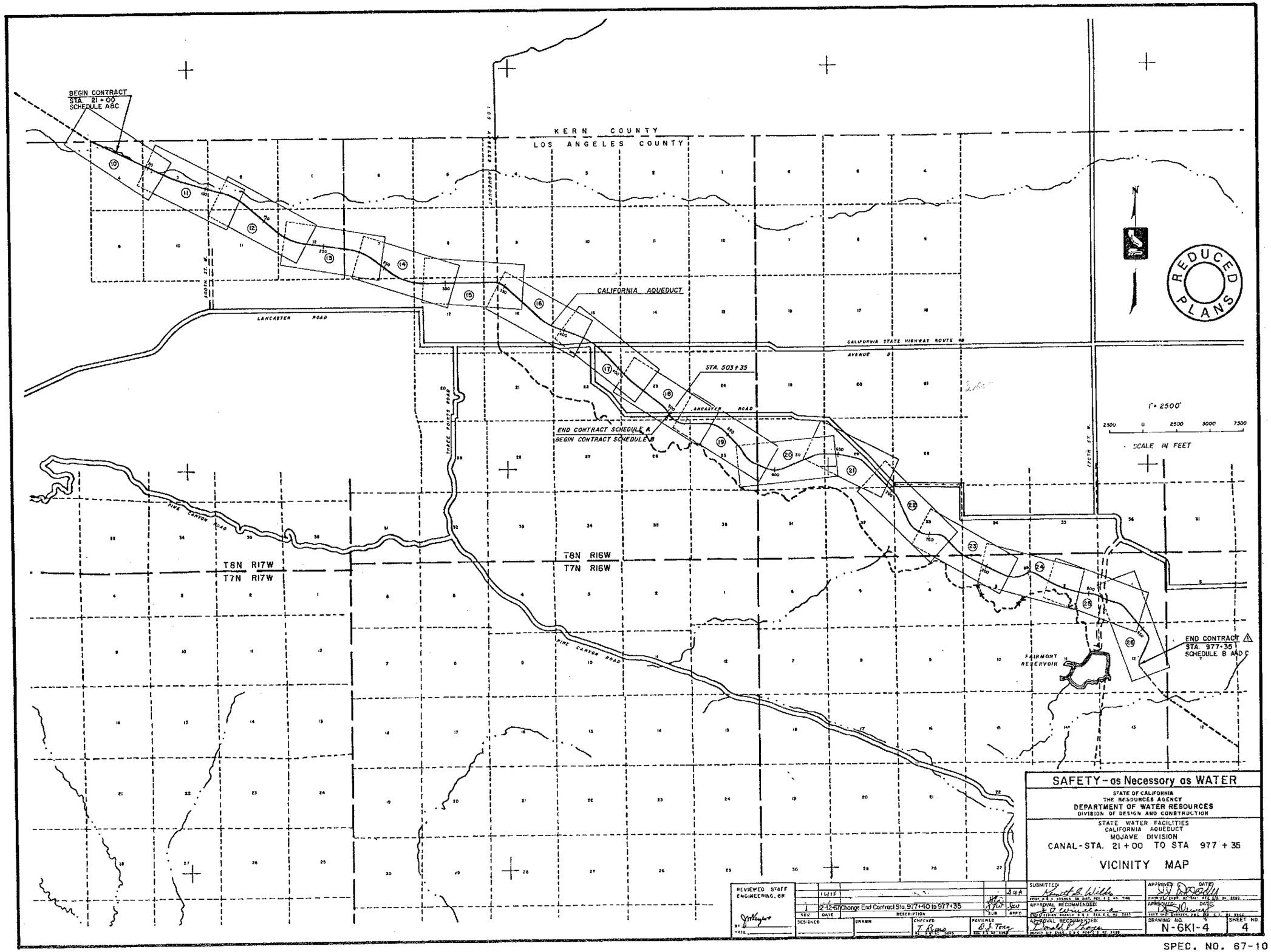
CANAL - STA. 21 + 00 TO STA. 977 + 35

LIST OF DRAWINGS

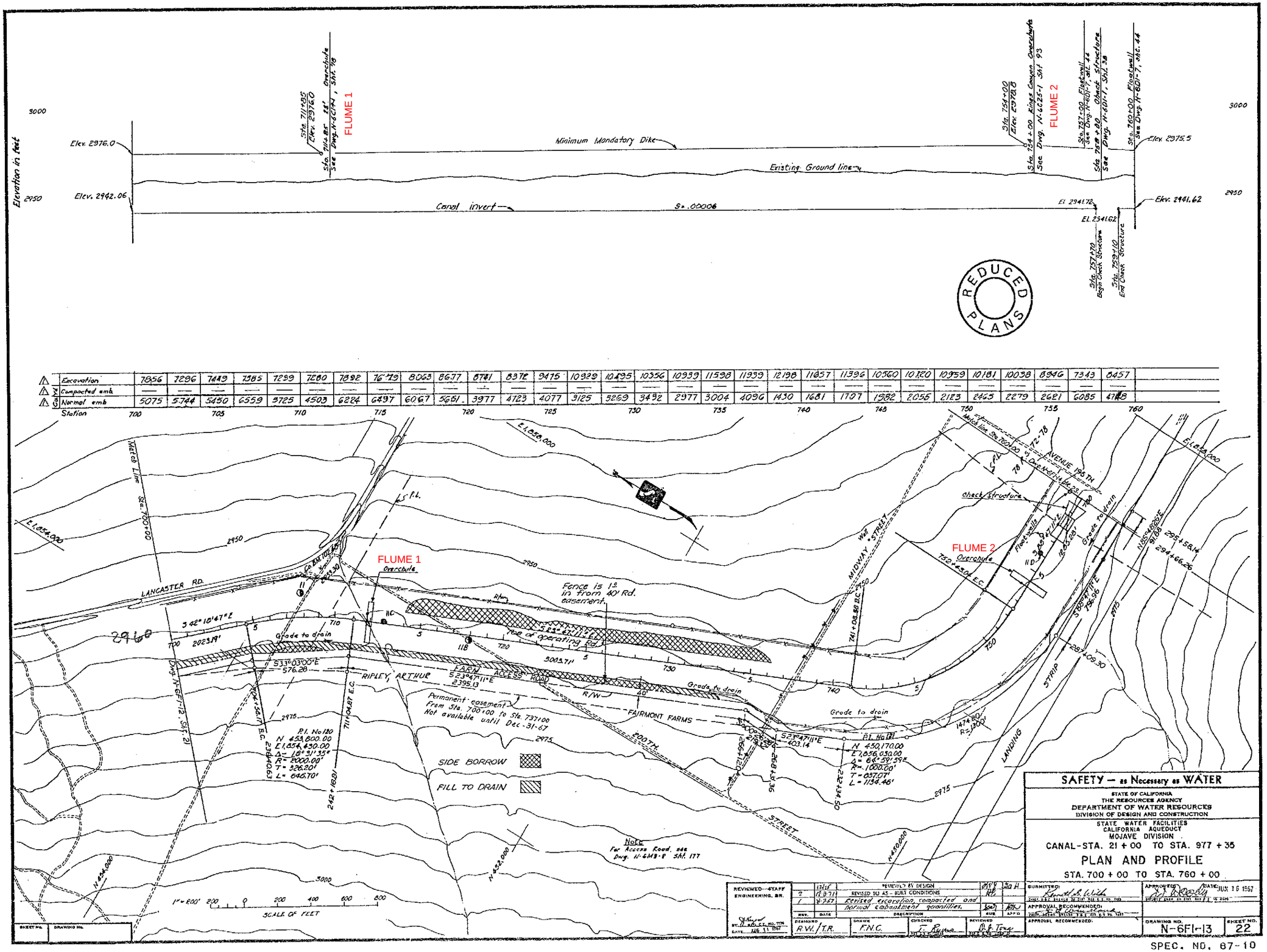
SUBMITTED: | APPROVAL RECOMMENDED | APPROVAL RECOMMENDED | APPROVED: | DATE:

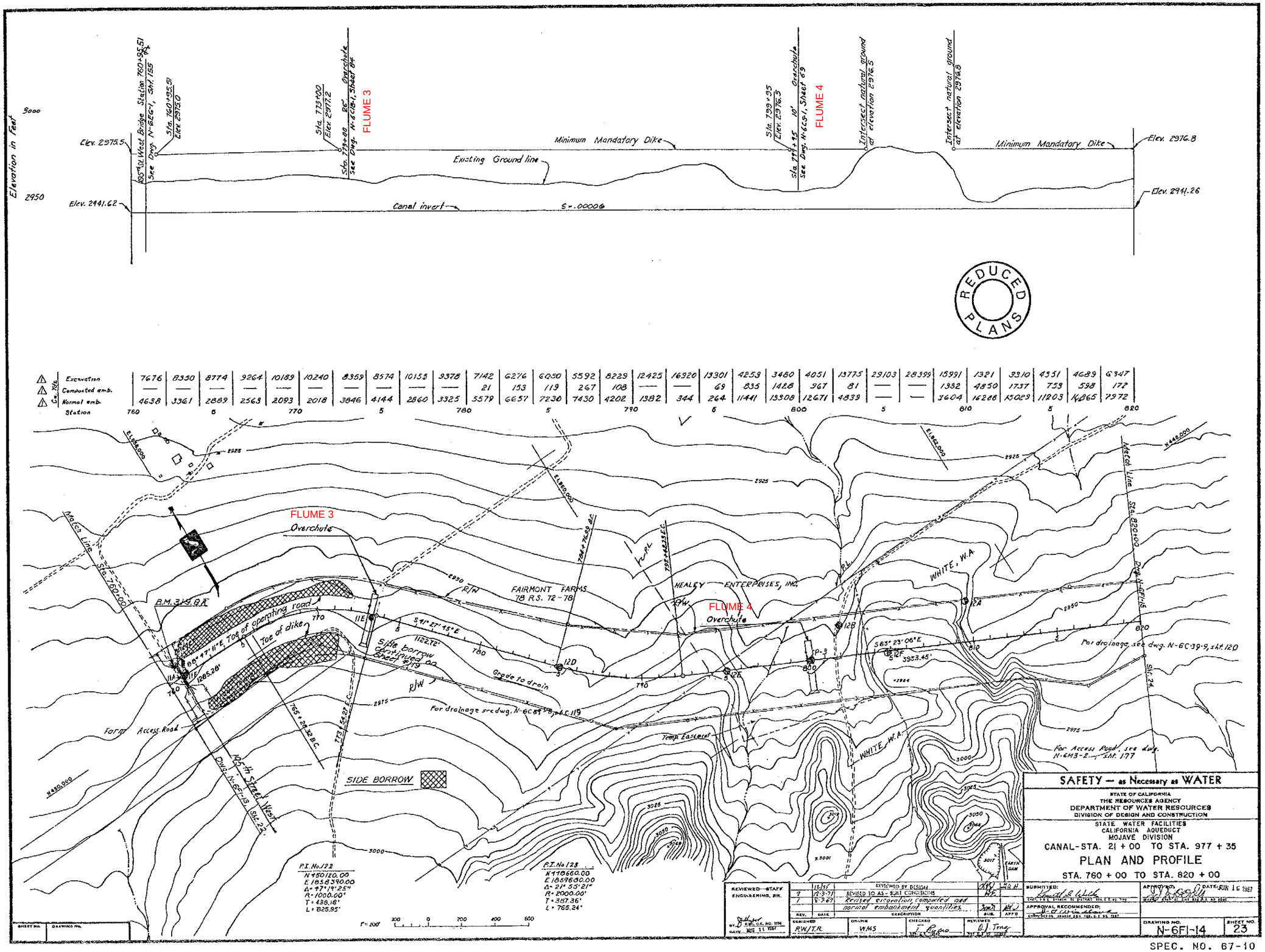
DRAWING NO. N-6K1-3 | SHEET NO. 3

SPEC. NO. 67-

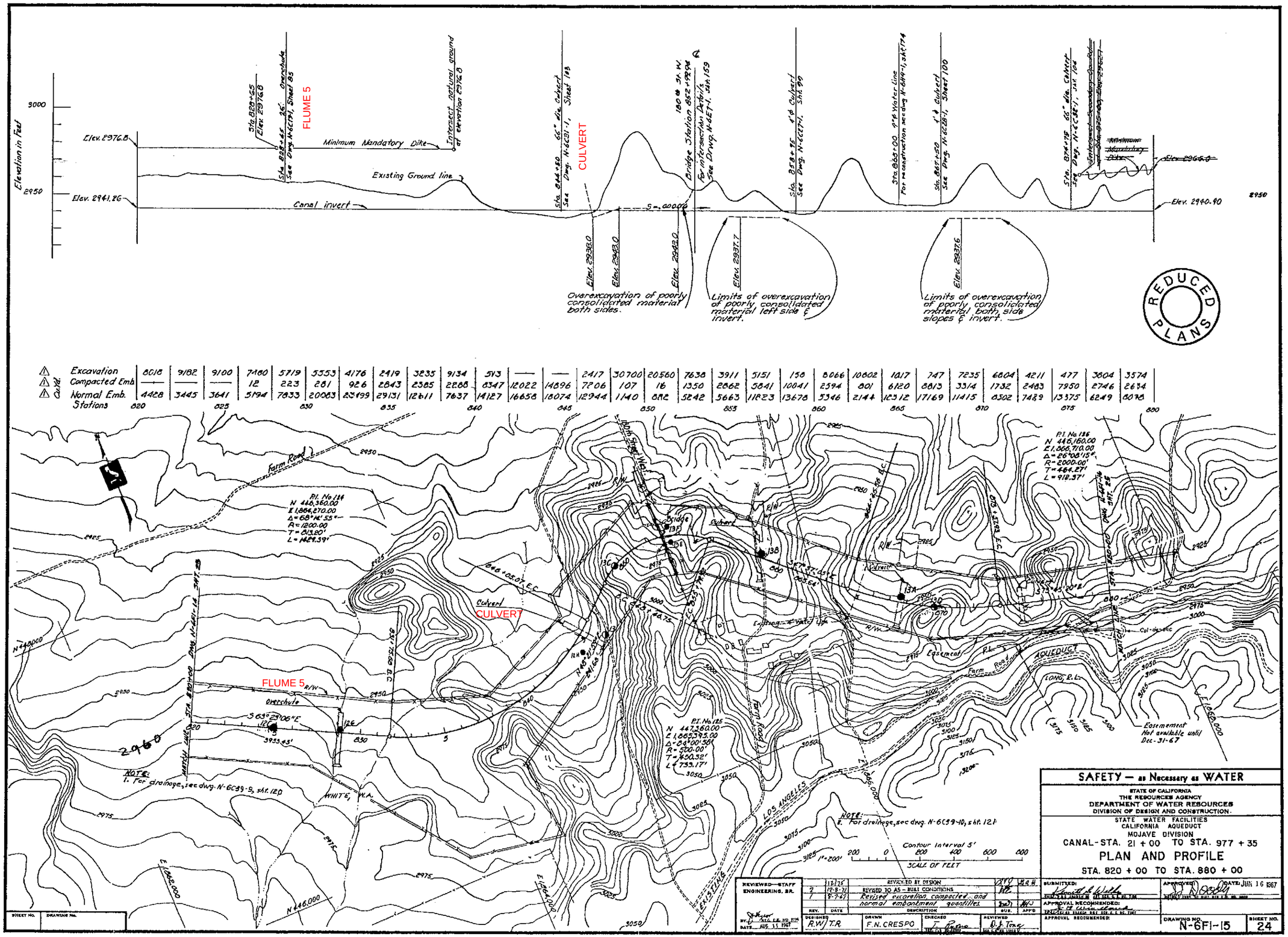

BEGIN CONTRACT
STA. 21 + 00
SCHEDULE ABC
KERN COUNTY
LOS ANGELES COUNTY
LOS ANGELES AQUEDUCT
CALIFORNIA AQUEDUCT
LANCASTER ROAD
CALIFORNIA STATE HIGHWAY ROUTE 138
AVENUE D
STA. 503 + 35
END CONTRACT SCHEDULE A
BEGIN CONTRACT SCHEDULE B
THREE POINTS ROAD
PINE CANYON ROAD
T8N R17W
T7N R17W
T8N R16W
T7N R16W
FAIRMONT RESERVOIR
END CONTRACT
STA. 977+35
SCHEDULE B AND C
REDUCED PLANS
1" = 2500'
SCALE IN FEET
SAFETY - as Necessary as WATER
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION
STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION
CANAL-STA. 21 + 00 TO STA 977 + 35
VICINITY MAP
REVIEWED STAFF ENGINEERING, GR
1 2-12-67 Change End Contract Sta. 977+40 to 977+35
REV DATE DESCRIPTION
DESIGNED
DRAWN
CHECKED
REVIEWED
SUBMITTED
APPROVAL RECOMMENDED
APPROVED
DATE
DRAWING NO. N-6K1-4
SHEET NO. 4

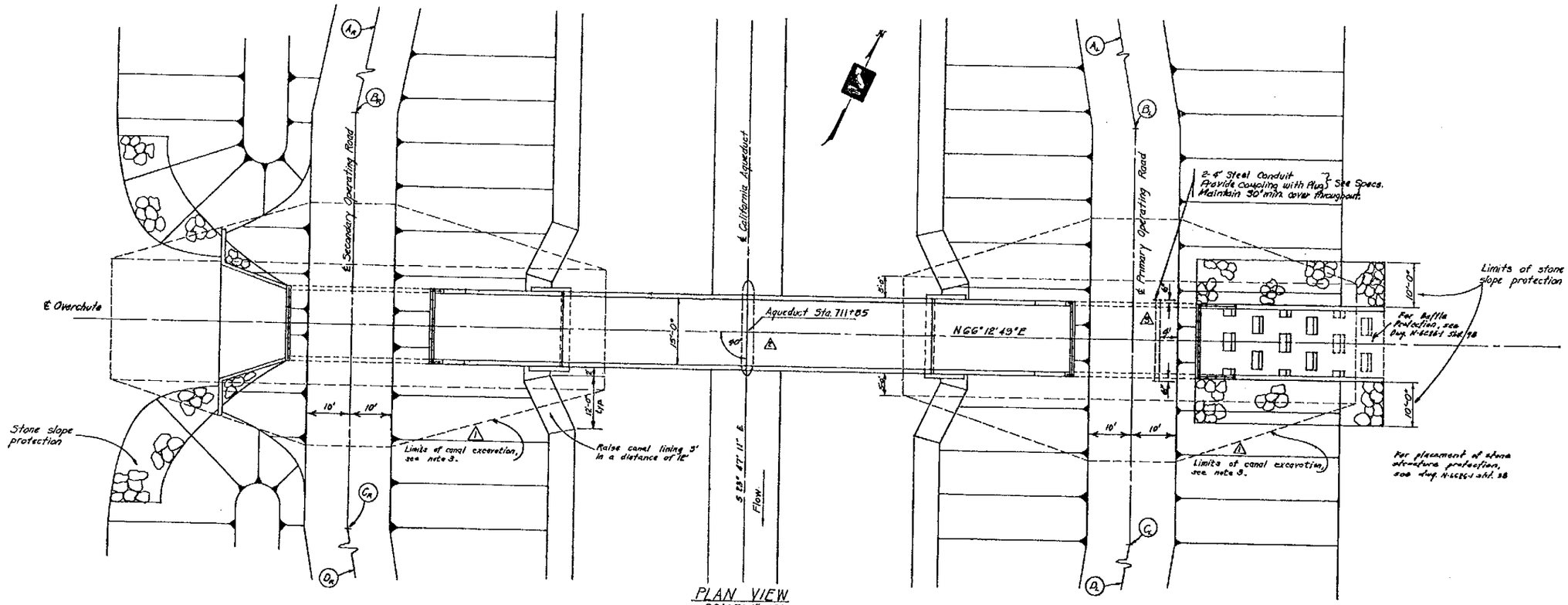
SPEC. NO. 67-10


Elevation in feet
3000
2950
Elev. 2976.0
Elev. 2942.06
Sta. 711+85
Elev. 2976.0
Sta. 711+85 B.C.
See Dwg. N-6CH1, Sht. 78
Overchute
FLUME 1
Minimum Mandatory Dike
Existing Ground line
Canal invert
S = .00006
Sta. 754+00
Elev. 2978.8
Sta. 754+00 Kings Canyon Overchute
See Dwg. N-6D25-1 Sht 93
FLUME 2
Sta. 757+00 Floatwall
See Dwg. N-6D1-7, Sht. 44
Sta. 758+00 Check Structure
See Dwg. N-6D1-1, Sht. 38
Sta. 760+00 Floatwall
See Dwg. N-6D1-7, Sht. 44
Elev. 2975.5
Elev. 2941.62
El. 2941.72
El. 2941.62
Sta. 757+70 Begin Check Structure
Sta. 759+10 End Check Structure
REDUCED PLANS
Excavation
Compacted emb.
Normal emb.
Station
700
705
710
715
720
725
730
735
740
745
750
755
760
Water Line Sta. 700+00
LANCASTER RD.
FLUME 1
Overchute
FLUME 2
Overchute
Fence is 1' in from 40' Rd. easement.
Grade to drain
RIPLEY, ARTHUR
FARM ACCESS ROAD
FAIRMONT FARMS
Permanent easement From Sta. 700+00 to Sta. 737+00 Not available until Dec-31-67
SIDE BORROW
FILL TO DRAIN
P.I. No 180
N 453,800.00
E 1,854,430.00
Δ = 18°31'35"
R = 2000.00'
T = 326.30'
L = 646.70'
P.I. No 181
N 450,170.00
E 1,856,050.00
Δ = 66°59'59"
R = 1,000.00'
T = 657.07'
L = 1194.46'
MIDWAY STREET
AVENUE 196TH
STREET
STRIP
LANDING
check structure
Note: For Access Road, see Dwg. N-6M3-8 Sht. 177
1" = 200'
SCALE OF FEET
SAFETY — as Necessary as WATER
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION
STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION
CANAL-STA. 21 + 00 TO STA. 977 + 35
PLAN AND PROFILE
STA. 700 + 00 TO STA. 760 + 00
REVISED BY DESIGN
REVISED TO AS-BUILT CONDITIONS
Revised excavation, compacted and normal embankment quantities.
DESIGNED R.W./T.R.
DRAWN F.N.C.
CHECKED
REVIEWED
SUBMITTED:
APPROVED:
JUN 26 1967
APPROVAL RECOMMENDED:
DRAWING NO. N-6F1-13
SHEET NO. 22
SPEC. NO. 67-10

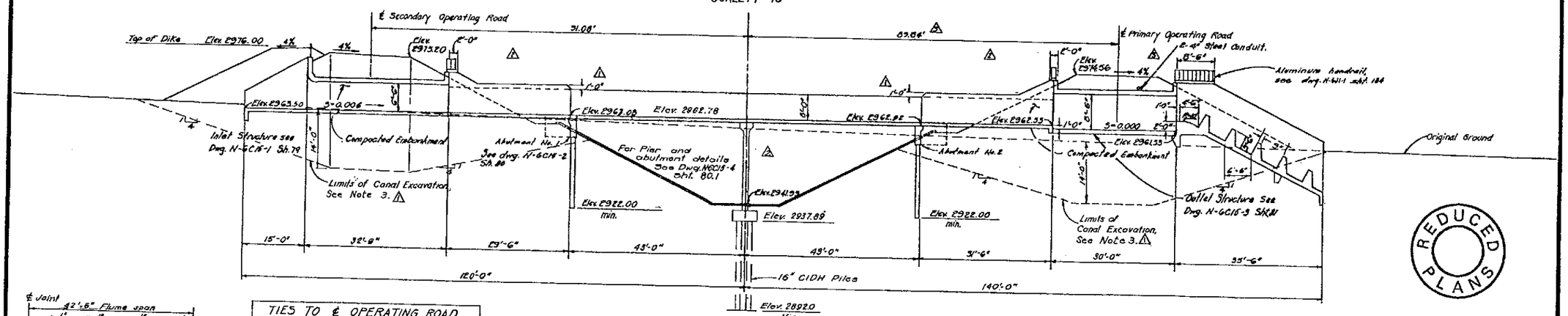

Elevation in Feet
3000
2950
Elev. 2975.5
Elev. 2941.62
85° Rt. West Bridge Station 760+55.51
See Dwg. N-6E6-1, Sht. 155
Sta. 760+55.51
Elev. 2975.0
Sta. 773+00
Elev. 2977.2
Sta. 773+00
See Dwg. N-6C18-1, Sheet 84
Overchute
FLUME 3
Minimum Mandatory Dike
Existing Ground line
Canal invert
S=.00006
Sta. 799+95
Elev. 2976.3
Sta. 799+95
See Dwg. N-6C9-1, Sheet 69
Overchute
FLUME 4
Intersect natural ground at elevation 2976.5
Intersect natural ground at elevation 2976.8
Minimum Mandatory Dike
Elev. 2976.8
Elev. 2941.26
REDUCED PLANS
Excavation
Compacted emb.
Normal emb.
Station
7676 8330 8774 9264 10189 10240 8359 8574 10155 9378 7142 6276 6050 5592 8229 12425 16920 13301 4253 3480 4051 13775 29103 28399 15991 1321 3310 4351 4689 6347
— — — — — — — — — — 21 153 119 267 108 — — 69 835 1428 967 81 — — 1382 4850 1737 753 598 172
4638 3361 2889 2563 2093 2018 3846 4144 2860 3325 5579 6657 7230 7430 4202 1382 344 264 11441 13308 12671 4839 — — 3604 16268 15029 11203 14865 7972
760 770 780 790 800 810 820
FLUME 3
Overchute
FLUME 4
Overchute
FAIRMONT FARMS
78 R.S. 72-78
HEALEY ENTERPRISES, INC.
WHITE, W.A.
B.M. 3149 BX
Toe of dike
Top of operating road
Side borrow
Grade to drain
For drainage see dwg. N-6C8-1, sht. 119
For drainage see dwg. N-6C39-9, sht. 120
For Access Road, see dwg. N-6M3-2, sht. 177
Temp. Easement
Form Access Road
SIDE BORROW
193rd Street West
Dwg. N-6F1-15 Sht. 22
Match Line Sta. 760+00
Match Line Sta. 820+00
Dwg. N-6F1-15 Sht. 24
P.I. No. 122
N 150120.00
E 1858390.00
Δ = 271°19'25"
R = 1000.00'
T = 439.18'
L = 825.95'
P.I. No. 128
N 118660.00
E 1859630.00
Δ = 21° 55'21"
R = 2000.00'
T = 387.36'
L = 765.24'
SAFETY — as Necessary as WATER
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION
STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION
CANAL-STA. 21 + 00 TO STA. 977 + 35
PLAN AND PROFILE
STA. 760 + 00 TO STA. 820 + 00
REVIEWED—STAFF ENGINEERING, BR.
REVIEWED BY DESIGN
REVISED TO AS-BUILT CONDITIONS
Revised excavation, compacted and normal embankment quantities
DESIGNED R.W./T.R.
DRAWN W.M.S.
CHECKED
REVIEWED
SUBMITTED:
APPROVED:
DATE: JUN 16 1967
APPROVAL RECOMMENDED:
DRAWING NO. N-6F1-14
SHEET NO. 23

SPEC. NO. 67-10

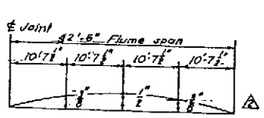

Elevation in Feet
3000
2950
Elev. 2976.8
Elev. 2941.86
Sta. 828+45
Elev. 2976.8
26' Overchute
See Dwg. N-6C191, Sheet 85
FLUME 5
Minimum Mandatory Dike
Intersect natural ground at elevation 2976.8
Existing Ground line
Canal invert
Sta. 844+50 66" dia. Culvert
See Dwg. N-6C31-1, Sheet 148
CULVERT
Bridge Station 852+29.96
For intersection Detail
See Dwg. N-6E7-1, Sht. 159
Sta. 858+95 4'ø Culvert
See Dwg. N-6C27-1, Sht. 99
Sta. 863+00 7'ø Water line
For reconstruction see dwg. N-6B9-1, sht. 174
Sta. 867+50 4'ø Culvert
See Dwg. N-6C28-1, Sheet 100
Sta. 874+75 66" dia. Culvert
See Dwg. N-6C38-1, Sht. 104
Elev. 2940.90
Elev. 2938.0
Elev. 2943.0
Elev. 2943.0
Elev. 2937.7
Elev. 2937.6
Overexcavation of poorly consolidated material both sides.
Limits of overexcavation of poorly consolidated material left side & invert.
Limits of overexcavation of poorly consolidated material, both side slopes & invert.
REDUCED PLANS
Excavation 8018 9182 9100 7460 5719 5553 4176 2419 3235 9134 593 — — 2417 30700 20560 7638 3911 5151 158 8066 10802 1017 747 7235 6804 4211 477 3604 3574
Compacted Emb — — — 12 223 281 926 2843 2585 2268 6347 12022 14896 7206 107 16 1350 2862 5841 10041 2594 801 6120 8813 3314 1732 2483 7950 2746 2634
Normal Emb. 4428 3445 3641 5194 7833 20083 23199 29131 12611 7637 14127 16658 18074 12944 1140 882 5242 5663 11823 13678 5346 2144 12312 17169 11415 8302 7489 13375 6249 8098
Cu. Yd.
Stations 820 825 830 835 840 845 850 855 860 865 870 875 880
Farm Road
P.I. No. 136
N 446,360.00
E 1,864,270.00
Δ = 68°41'55"
R = 1200.00
T = 813.80'
L = 1429.39'
P.I. No. 136
N 446,150.00
E 1,866,710.00
Δ = 26°08'15"
R = 2000.00'
T = 464.27'
L = 912.37'
Bridge
Culvert
CULVERT
FLUME 5
Overchute
S 63°23'06" E
N 446,000
P.I. No. 125
N 447,360.00
E 1,865,395.00
Δ = 84°00'36"
R = 500.00'
T = 420.32'
L = 733.17'
Easement
Farm Road
AQUEDUCT
LONG B.L.
Easement Not available until Dec-31-67
LOS ANGELES
EXISTING
NOTE:
1. For drainage, see dwg. N-6C39-9, sht. 120
NOTE:
2. For drainage, see dwg. N-6C39-10, sht. 121
Contour Interval 5'
1" = 200'
200 0 200 400 600 800
SCALE OF FEET
SAFETY — as Necessary as WATER
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION.
STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION
CANAL-STA. 21 + 00 TO STA. 977 + 35
PLAN AND PROFILE
STA. 820 + 00 TO STA. 880 + 00
REVIEWED—STAFF ENGINEERING, B.R.
REVIEWED BY DESIGN
REVISED TO AS-BUILT CONDITIONS
Revised excavation, compacted, and normal embankment quantities
DESIGNED R.W./T.R.
DRAWN F.N. CRESPO
CHECKED
REVIEWED
SUBMITTED:
APPROVED:
DATE: JUN 16 1967
APPROVAL RECOMMENDED:
APPROVAL RECOMMENDED:
DRAWING NO. N-6F1-15
SHEET NO. 24



PLAN VIEW
SCALE: 1"=10'



LONGITUDINAL SECTION
SCALE: 1"=10'



CAMBER DIAGRAM
Not to Scale

Total Overchute Deflection due to dead loads. For Deflection Values at the time of falsework removal divide those shown by 2. Construct Overchute to camber shown above.

TIES TO ℄ OPERATING ROAD			
POINT	STATION	ELEVATION	℄ DISTANCE
A_L	709+45	* 2962.60	66.67
B_L	711+45	* 2974.16	89.84
C_L	712+25	* 2974.16	89.84
D_L	714+25	* 2962.58	66.67
A_R	709+45	2963.40	66.67
B_R	711+45	2975.60	91.08
C_R	712+25	2975.60	91.08
D_R	714+25	2963.38	66.67

NOTES

1. For placement of stone slope protection, see dwg. N-6C16-1, Sht. 98
2. All slopes are 2 to 1 unless otherwise shown.
3. Transverse side slope of 1:1, and longitudinal side slope of 4:1.

* Modified under Spec. 74-12

1"=10' 10 0 10 20 30 40
SCALE OF FEET

REV.	DATE	DESCRIPTION	DR.	SUB.	APPR.
	11-13-58	[illegible]	DR	JGH	
4	12-3-71	[illegible] CONDITIONS	DR		
3	3-25-68	Revised slope of primary oper. rd. & added 2-4" steel conduits.	J.R.	JGH	
2	12-17-67	Added pier changed height of flume & revised camber diagram	DR	JGH	
1	8-7-67	Raised height of U-section by 1'-0". Added limits of canal excavation on Plan View (Note 3)	JGH	DR	

REVIEWED—STAFF ENGINEERING, B.R.
BY: [illegible] REG. C.E. NO. [illegible]
DATE: [illegible] 1967

DESIGNED: W. STEWART
DRAWN: [illegible]
CHECKED: [illegible]
REVIEWED: [illegible]

SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

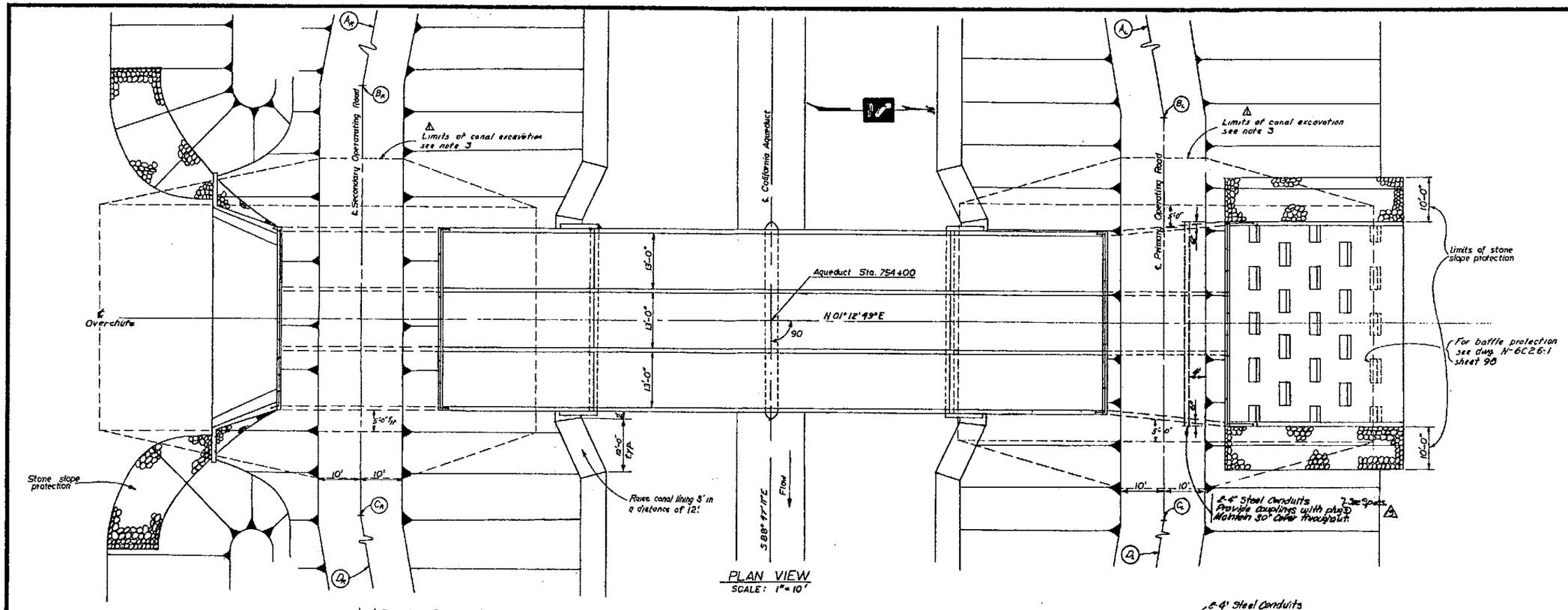
CANAL - STA. 21 + 00 TO STA. 977 + 35
15' OVERCHUTE
STA. 711+85
PLAN AND LONGITUDINAL SECTION

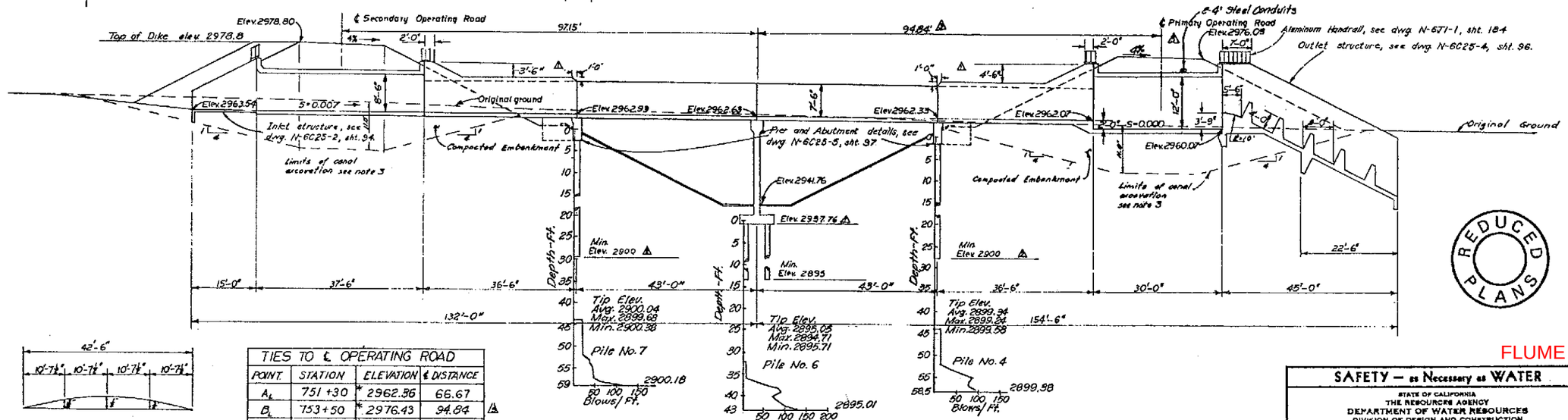
SUBMITTED: [illegible]
Supervising Engineer, Sec. 1 & 2, Sec. 3
APPROVAL RECOMMENDED: [illegible]
Supervising Engineer, Sec. 1 & 2, Sec. 3
APPROVAL RECOMMENDED: [illegible]
Supervising Engineer, Sec. 1 & 2, Sec. 3
APPROVED: [illegible] DATE: JUN 16 1967
Chief, Div. of Design and Construction

DRAWING NO. N-6C14-1
SHEET NO. 78

REDUCED PLANS

FLUME 1





CAMBER DIAGRAM
Not to scale

Total overchute deflection due to dead loads. For deflection values at time of falsework removal divide those shown by 2. Construct to camber shown above.

TIES TO ℄ OPERATING ROAD			
POINT	STATION	ELEVATION	℄ DISTANCE
A_L	751+30	* 2962.36	66.67
B_L	753+50	* 2976.43	94.84
C_L	754+50	* 2976.43	94.84
D_L	756+70	* 2962.32	66.67
A_R	751+00	2963.17	66.67
B_R	753+50	2978.40	97.15
C_R	754+50	2978.40	97.15
D_R	757+00	2963.14	66.67

* Modified under Spec. 74-12

NOTE:
1-For placement of stone slope protection see Dwg N-6C26-1, Sht. 98.
2-All slopes are 2:1 unless otherwise shown.
3-Transverse side slope of 1 to 1
Longitudinal side slope of 4 to 1

1"=10' 10 0 10 20 30 40
SCALE OF FEET

REV.	DATE	DESCRIPTION	DR.	CH.
4	12-3-75	REVISED TO AS-BUILT CONDITIONS		
3	4-29-69	Revised slope of primary oper. Rd. & added 2-4" Steel conduits.		
2	11-12-67	Changed pile tip elevations		
1	6-7-67	Raised height of U-section 1'-0" Added Limits of Canal Excavation on plan and Note 3. Changed Elevation at bottom of Pier Footing. Deleted 16" CIOH Pipe		

REVISED—STAFF ENGINEERING, B.R.
BY: REG. C.E. NO. 11276
DATE: JUN 11 1967

DESIGNED: W STEWART | DRAWN: STEWART | CHECKED: T. Rino | REVIEWED: B. J. Tracy

SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

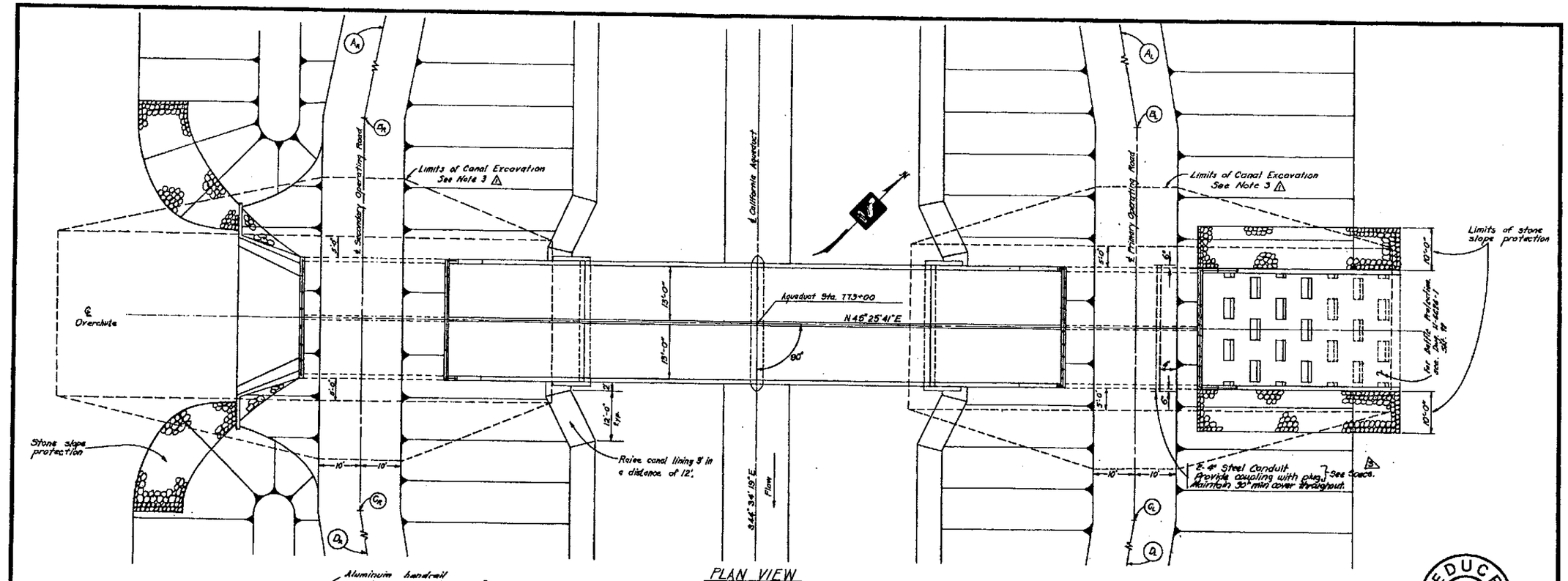
CANAL- STA. 21 + 00 TO STA. 977 + 35
KING'S CANYON OVERCHUTE
(STA. 754+00)
PLAN AND LONGITUDINAL SECTION

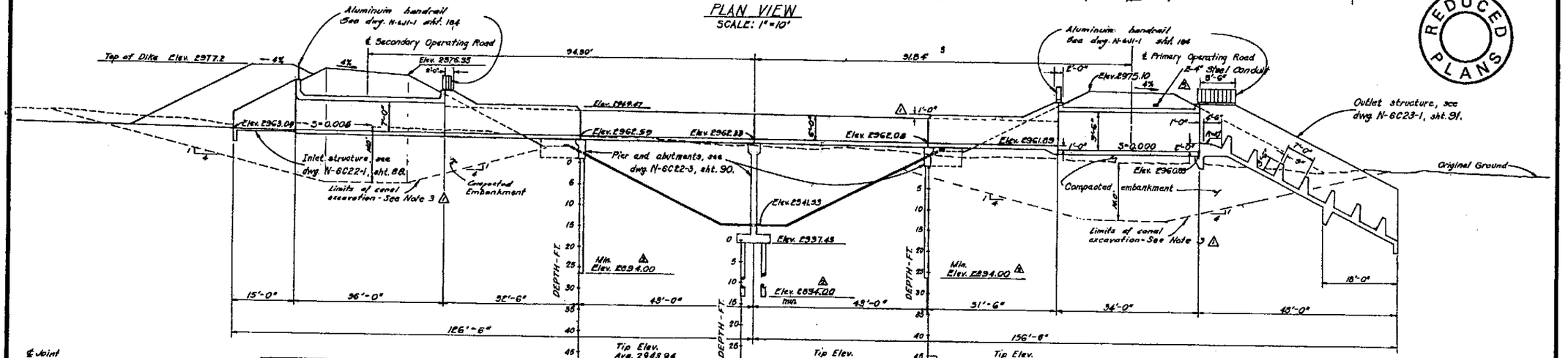
SUBMITTED: Supervising Engineer, Design Section, Eng. Div. No. 3171
APPROVED: DATE: JUN 16 1967 Chief, Design Section, Eng. Div. No. 3171
APPROVAL RECOMMENDED: Supervising Engineer, Eng. Div. No. 3171
APPROVAL RECOMMENDED: Chief, Eng. Div. No. 3171
DRAWING NO. N-6C25-1 | SHEET NO. 93

REDUCED PLANS

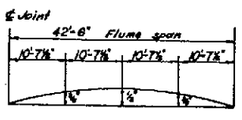
FLUME 2

SPEC. NO. 67-10





LONGITUDINAL SECTION
SCALE: 1"=10'



CAMBER DIAGRAM
Not to Scale

Total Overchute Deflection due to dead loads. For Deflection Values at the time of falsework removal divide those shown by 2. Construct Overchute to camber shown above.

TIES TO ℄ OPERATING ROAD			
POINT	STATION	ELEVATION	℄ DISTANCE
A_L	770+61	*2962.15	66.67
B_L	772+56	*2974.70	91.84 △3
C_L	773+44	*2974.70	91.84 △3
D_L	775+33	*2962.12	66.67
A_R	770+31	2962.95	66.67
B_R	772+56	2976.75	94.30
C_R	773+44	2976.75	94.30
D_R	775+69	2962.92	66.67

* Modified under Spec. 74-12

NOTES
1. For placement of stone slope protection, see dwg. N-6C26-1, sht. 98.
2. All slopes are 2 to 1 unless otherwise shown
3. Overexcavation Longitudinal slope 4 to 1; Transverse Side Slope 1 to 1 △

1"=10' 10 0 10 20 30 40
SCALE OF FEET

NO.	DATE	REVISED BY DESIGN	DR.	CHK.
4	12-3-71	REVISED TO AS-BUILT CONDITIONS		
3	3-23-66	Reversed slope of primary oper. rd. & added 8'-4" Steel Conduit.		
2	12-12-67	Changed pile-tip elevation		
1	8-7-67	Revised height of U-Section by 1'-0" Added "Limits of Canal Excavation" and Note 3		
REV.	DATE	DESCRIPTION	DR.	APPD

REVIEWED—STAFF ENGINEERING, BR.
BY: N.S. S.E. NO. 1171
DATE: AUG 11 1967

DESIGNED BY: R.T.E. H. STEWART
DRAWING: M. Kanawati
CHECKED: T. E. Grant
REVIEWED: A. J. Troy

REDUCED PLANS

FLUME 3

SAFETY — as Necessary as WATER

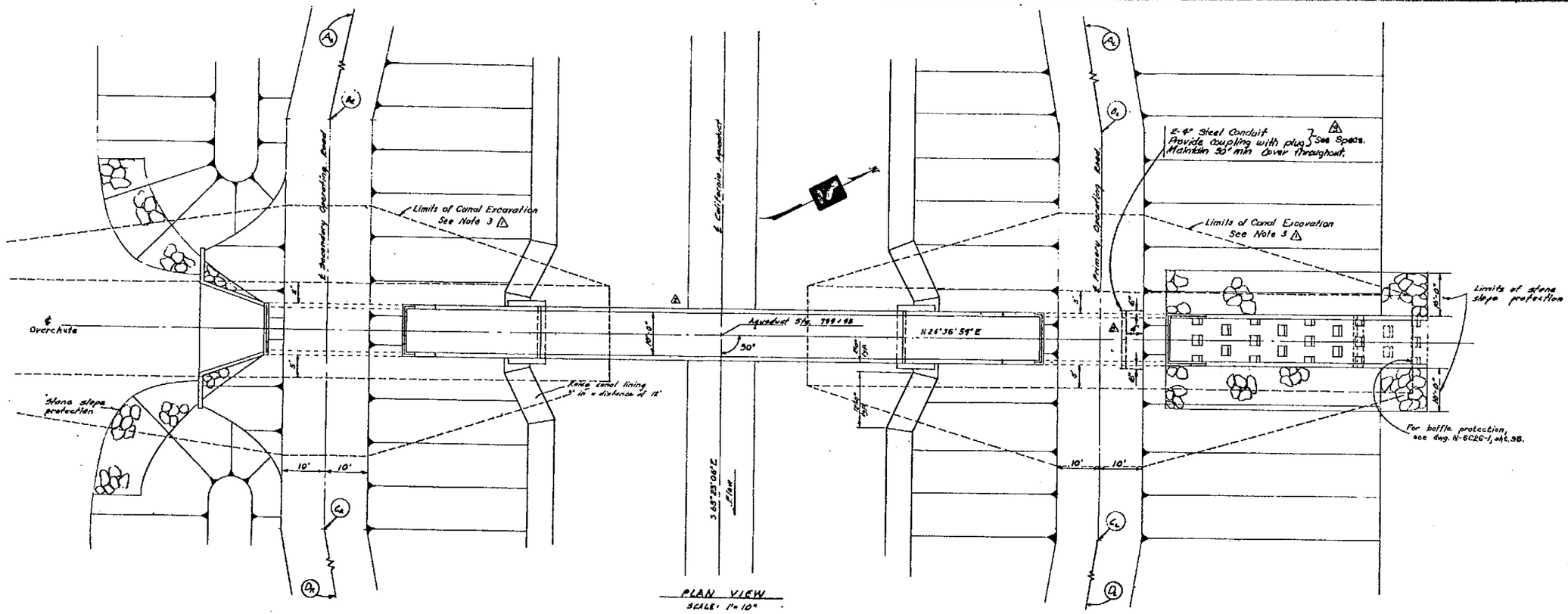
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

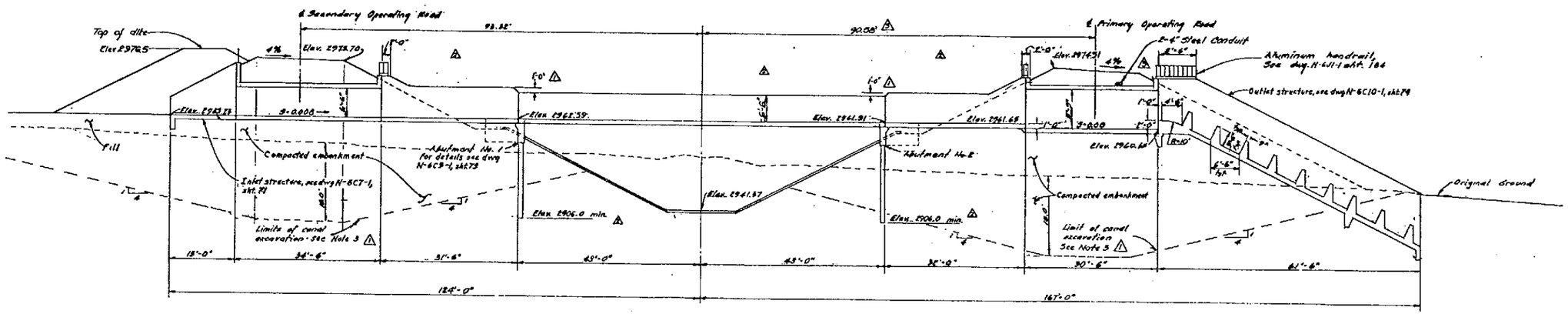
STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

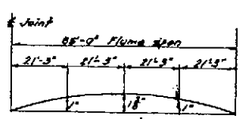
CANAL - STA. 21 + 00 TO STA. 977 + 35
26' OVERCHUTE
STA. 773+00
PLAN AND LONGITUDINAL SECTION

SUBMITTED: Sam Arnold
APPROVAL RECOMMENDED: [illegible]
APPROVED: [illegible]
DATED: JUN 16 1967
APPROVAL RECOMMENDED: [illegible]
DRAWING NO. N-6C18-1
SHEET NO. 84

SPEC. NO. 67-10







CAMBER DIAGRAM
Not to Scale

Total Overchute Deflection due to dead loads. For Deflection Values at the time of falsework removal divide those shown by 2. Construct Overchute to camber shown above.

TIES TO ℄ OPERATING ROAD			
POINT	STATION	ELEVATION	℄ DISTANCE
A_1	797+20	* 2961.99	66.67'
B_1	799+50	* 2973.91	90.58' △
C_1	800+40	* 2973.91	90.58 △
D_1	802+70	* 2961.98	66.67'
A_2	797+60	2962.73	66.67'
B_2	799+50	2976.10	93.32'
C_2	800+40	2976.10	93.32'
D_2	802+30	2962.76	66.67'

LONGITUDINAL SECTION
SCALE: 1"=10'

NOTES

1. For placement of stone slope protection see dwg. N 6C26-1 Sht. 96
2. All slopes are 2 to 1 unless otherwise shown
3. Transverse side slope of 1 to 1 and longitudinal side slope of 4:1. △

* Modified under Spec. 74-12

REDUCED PLANS

1"=10' SCALE OF FEET

REV.	DATE	DESCRIPTION	DRWN	CHKD
4	12-3-71	REVISED TO AS-BUILT CONDITIONS		
3	3-25-68	Revised slope of primary oper. rd. & added 2-4" Steel Conduit.	T.K.	
2	12-12-67	Raised height of flume, removed shrub, and changed camber diagram		
1	8-7-67	Raised height of U-Section by 1'-0" Added Limits of Canal Excavation and Note 3		

REVIEWED—STAFF ENGINEERING, DR.
DATE Mar 11 1967

DESIGNED H. STEWART | DRAWN C. Matsumoto | CHECKED | REVIEWED D. J. Troy

FLUME 4

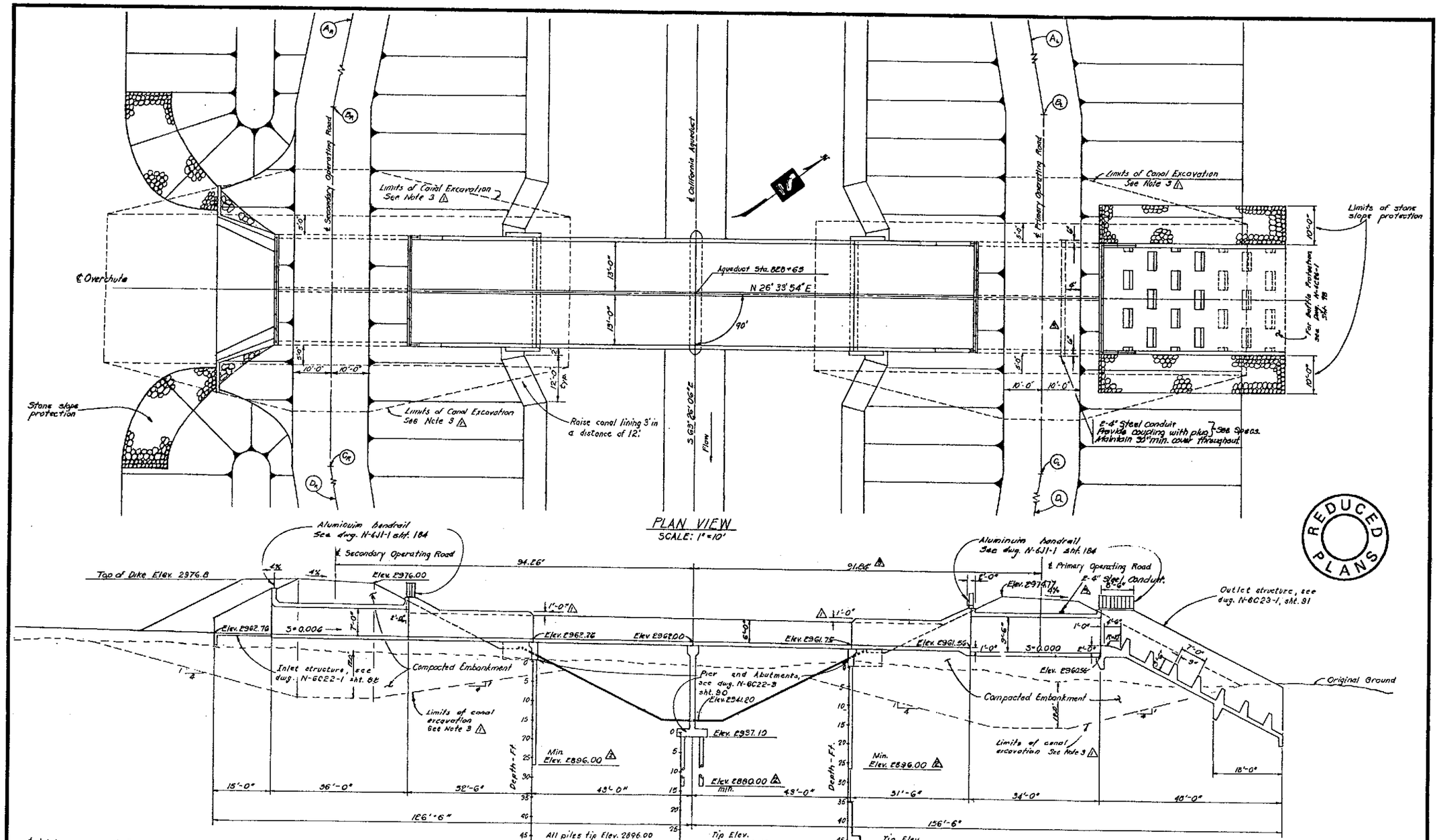
SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

CANAL - STA. 21 + 00 TO STA. 977 + 35
10' OVERCHUTE
STA. 799+95
PLAN AND LONGITUDINAL SECTION

SUBMITTED: Chief, Design Branch
APPROVED: Chief, Design Branch
DATE: JUN 16 1967
APPROVAL RECOMMENDED: Chief, Design Section
APPROVAL RECOMMENDED: Chief, Engineering Geology Section
DRAWING NO. N-6C5-1
SHEET NO. 69



TIES TO ℄ OPERATING ROAD			
POINT	STATION	ELEVATION	℄ DISTANCE
A_L	826+20	* 2961.82	66.67
B_L	828+15	* 2974.37	91.84 △
C_L	829+15	* 2974.37	91.84 △
D_L	831+10	* 2961.79	66.67
A_R	825+90	2962.62	66.67
B_R	828+15	2976.40	94.26
C_R	829+15	2976.40	94.26
D_R	831+40	2962.59	66.67

* Modified under Spec. 74-12

NOTES

1. For placement of stone slope protection, see dwg. N-6C26-1, sht. 98
2. All slopes are 2 to 1 unless otherwise shown
3. Overexcavation Longitudinal Slope 4 to 1 Transverse Side Slope 1 to 1 △

REV.	DATE	DESCRIPTION	BY	APP'D
4	1-23-71	REVIEWED BY DESIGN		
		REVISED TO AS-BUILT CONDITIONS		
3	9-5-68	Reversed slope of primary operating road & added 2-4" Steel conduit.		
2	12-12-67	Changed pile tip elevations		
1	4-7-67	Raise Height of U-Section by 1'-0" Added limits of Canal Excavation and Note 3		

REVIEWED—STAFF ENGINEERING, BR.
BY: [signature] C.E. C.E. NO. 7199
DATE: NOV 11 1967

DESIGNED: W. STEWART
DRAWN: M. Kawamoto
CHECKED: T. Evans
REVIEWED: D. J. Tong

SAFETY — as Necessary as WATER

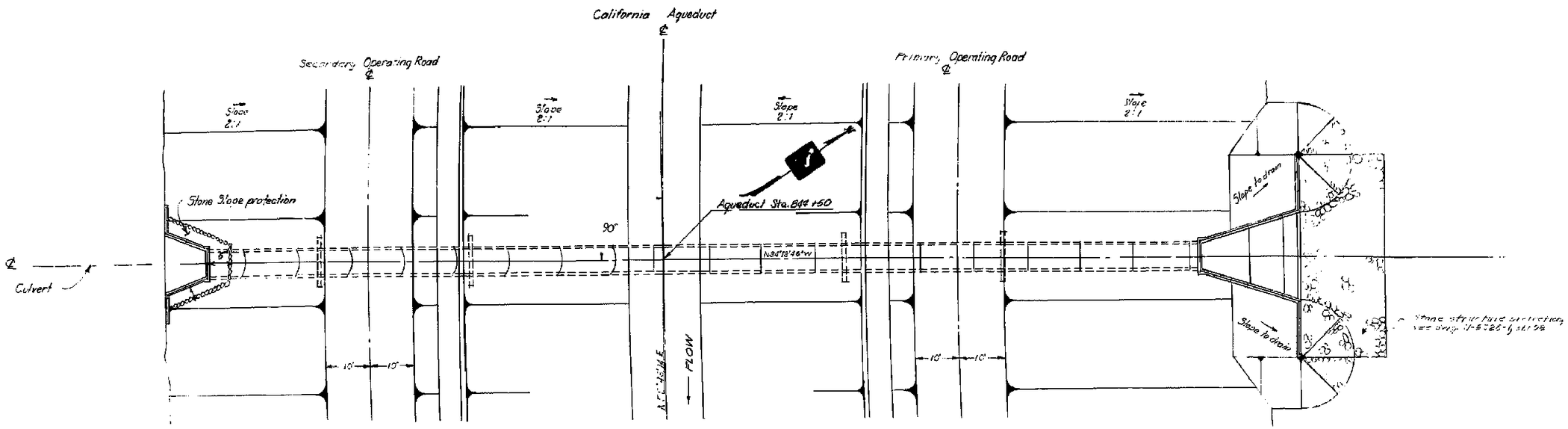
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

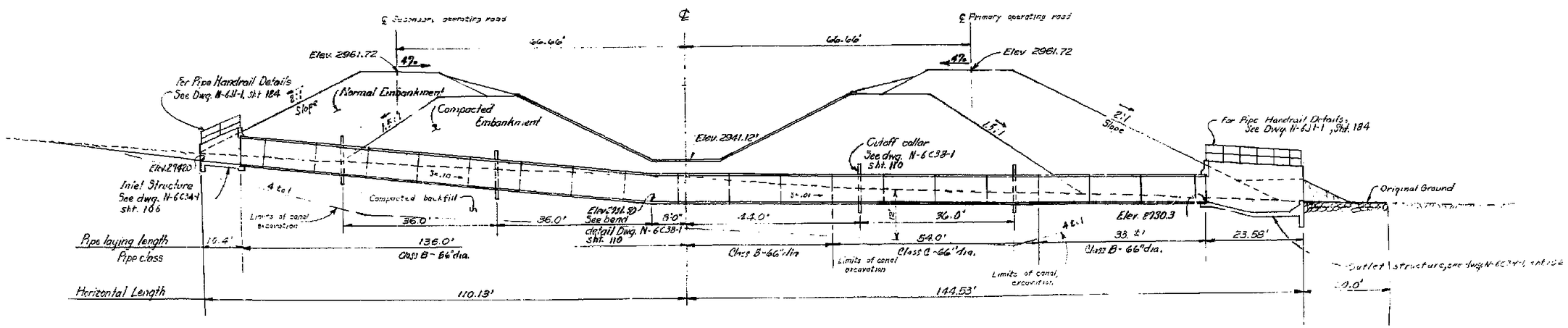
CANAL - STA. 21 + 00 TO STA. 977 + 35
26' OVERCHUTE
STA. 828+65
PLAN AND LONGITUDINAL SECTION

SUBMITTED: [signature] SANITARY ENGINEER, SENIOR CIVIL ENGINEER, SUPV. CIVIL ENGINEER
APPROVED: [signature] DATE: JUN 1 0 1968
APPROVAL RECOMMENDED: [signature] DESIGN ENGINEER, SUPV. CIVIL ENGINEER, CHIEF, DESIGN BRANCH
APPROVAL RECOMMENDED: [signature] CHIEF, STRUCTURAL DESIGN, SUPV. CIVIL ENGINEER, CHIEF, DESIGN BRANCH
DRAWING NO. N-6C19-1
SHEET NO. 85

SPEC. NO. 67-10



PLAN
Scale 1"=10'



LONGITUDINAL SECTION △
Scale: 1"=10'

NOTE: For As-Installed profile see shop drawing WB-124A

CULVERT

1"=10' 10 0 10 20 30 40
SCALE OF FEET

SAFETY — as Necessary as WATER

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF DESIGN AND CONSTRUCTION

STATE WATER FACILITIES
CALIFORNIA AQUEDUCT
MOJAVE DIVISION

CANAL - STA. 21 + 00 TO STA. 977 + 35
66" DIAMETER CULVERT
STA. 844+50

PLAN AND LONGITUDINAL SECTION

REV.	DATE	DESCRIPTION	DR.	CK.	SUB.	APP'D
	12/75	[illegible]	[illegible]	[illegible]		
2	7-28-71	Revised to As-Built Conditions	[illegible]			
1	12-1-67	Corrected Longitudinal Section	[illegible]			

REVIEWED—STAFF ENGINEERING, SR.
BY: [illegible]
DATE:

DESIGNED: W. STEWART
DRAWN: W. H. Walker
CHECKED: T. Tang
REVIEWED: L. S. Tang
SUBMITTED: [illegible]
APPROVAL RECOMMENDED: [illegible]
APPROVAL RECOMMENDED: [illegible]
APPROVED: [illegible]
DATE: [illegible]
DRAWING NO. N-6C31-1
SHEET NO. 103

SR 7255

SPEC. NO. 67 10

Culvert Calculator Report
Flume 1

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	2,973.50	ft	Headwater Depth/Height	1.54	
Computed Headwater Eleva	2,973.50	ft	Discharge	1,160.19	cfs
Inlet Control HW Elev.	2,973.50	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	2,973.49	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	2,963.50	ft	Downstream Invert	2,962.33	ft
Length	194.50	ft	Constructed Slope	0.006015	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	4.72	ft
Slope Type	Steep		Normal Depth	4.41	ft
Flow Regime	Supercritical		Critical Depth	5.71	ft
Velocity Downstream	16.38	ft/s	Critical Slope	0.002930	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	15.00	ft
Section Size	15 x 6.5 ft		Rise	6.50	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	2,973.49	ft	Upstream Velocity Head	2.85	ft
Ke	0.50		Entrance Loss	1.43	ft

Inlet Control Properties					
Inlet Control HW Elev.	2,973.50	ft	Flow Control	Submerged	
Inlet Type	45° non-offset wingwall flares		Area Full	97.5	ft²
K	0.49700		HDS 5 Chart	12	
M	0.66700		HDS 5 Scale	1	
C	0.03390		Equation Form	2	
Y	0.80300				

Culvert Calculator Report
Flume 2

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	2,975.54	ft	Headwater Depth/Height	1.41	
Computed Headwater Eleva	2,975.54	ft	Discharge	3,972.21	cfs
Inlet Control HW Elev.	2,975.20	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	2,975.54	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	2,963.54	ft	Downstream Invert	2,962.07	ft
Length	211.50	ft	Constructed Slope	0.006950	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	5.64	ft
Slope Type	Steep		Normal Depth	5.25	ft
Flow Regime	Supercritical		Critical Depth	6.86	ft
Velocity Downstream	18.05	ft/s	Critical Slope	0.003387	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	13.00	ft
Section Size	13 x 8.5 ft		Rise	8.50	ft
Number Sections	3				

Outlet Control Properties					
Outlet Control HW Elev.	2,975.54	ft	Upstream Velocity Head	3.43	ft
Ke	0.50		Entrance Loss	1.71	ft

Inlet Control Properties					
Inlet Control HW Elev.	2,975.20	ft	Flow Control	Submerged	
Inlet Type	45° non-offset wingwall flares		Area Full	331.5	ft²
K	0.49700		HDS 5 Chart	12	
M	0.66700		HDS 5 Scale	1	
C	0.03390		Equation Form	2	
Y	0.80300				

Culvert Calculator Report
Flume 3

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	2,973.04	ft	Headwater Depth/Height	1.43	
Computed Headwater Eleva	2,973.04	ft	Discharge	2,014.51	cfs
Inlet Control HW Elev.	2,972.79	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	2,973.04	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	2,963.04	ft	Downstream Invert	2,961.89	ft
Length	201.00	ft	Constructed Slope	0.005721	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	4.84	ft
Slope Type	Steep		Normal Depth	4.62	ft
Flow Regime	Supercritical		Critical Depth	5.71	ft
Velocity Downstream	16.02	ft/s	Critical Slope	0.003194	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	13.00	ft
Section Size	13 x 7 ft		Rise	7.00	ft
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	2,973.04	ft	Upstream Velocity Head	2.86	ft
Ke	0.50		Entrance Loss	1.43	ft

Inlet Control Properties					
Inlet Control HW Elev.	2,972.79	ft	Flow Control	Submerged	
Inlet Type	45° non-offset wingwall flares		Area Full	182.0	ft²
K	0.49700		HDS 5 Chart	12	
M	0.66700		HDS 5 Scale	1	
C	0.03390		Equation Form	2	
Y	0.80300				

Culvert Calculator Report
Flume 4

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	2,973.23	ft	Headwater Depth/Height	1.54	
Computed Headwater Eleva	2,973.23	ft	Discharge	773.98	cfs
Inlet Control HW Elev.	2,973.23	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	2,973.22	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	2,963.23	ft	Downstream Invert	2,961.65	ft
Length	197.00	ft	Constructed Slope	0.008020	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	4.60	ft
Slope Type	Steep		Normal Depth	4.32	ft
Flow Regime	Supercritical		Critical Depth	5.71	ft
Velocity Downstream	16.83	ft/s	Critical Slope	0.003804	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	10.00	ft
Section Size	10 x 6.5 ft		Rise	6.50	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	2,973.22	ft	Upstream Velocity Head	2.86	ft
Ke	0.50		Entrance Loss	1.43	ft

Inlet Control Properties					
Inlet Control HW Elev.	2,973.23	ft	Flow Control	Submerged	
Inlet Type	45° non-offset wingwall flares		Area Full	65.0	ft²
K	0.49700		HDS 5 Chart	12	
M	0.66700		HDS 5 Scale	1	
C	0.03390		Equation Form	2	
Y	0.80300				

Culvert Calculator Report
Flume 5

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	2,972.76	ft	Headwater Depth/Height	1.43	
Computed Headwater Eleva	2,972.76	ft	Discharge	2,014.51	cfs
Inlet Control HW Elev.	2,972.51	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	2,972.76	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	2,962.76	ft	Downstream Invert	2,961.56	ft
Length	201.00	ft	Constructed Slope	0.005970	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	4.79	ft
Slope Type	Steep		Normal Depth	4.55	ft
Flow Regime	Supercritical		Critical Depth	5.71	ft
Velocity Downstream	16.17	ft/s	Critical Slope	0.003194	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	13.00	ft
Section Size	13 x 7 ft		Rise	7.00	ft
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	2,972.76	ft	Upstream Velocity Head	2.86	ft
Ke	0.50		Entrance Loss	1.43	ft

Inlet Control Properties					
Inlet Control HW Elev.	2,972.51	ft	Flow Control	Submerged	
Inlet Type	45° non-offset wingwall flares		Area Full	182.0	ft²
K	0.49700		HDS 5 Chart	12	
M	0.66700		HDS 5 Scale	1	
C	0.03390		Equation Form	2	
Y	0.80300				

Worksheet for Culvert

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Normal Depth	5.50	ft
Diameter	5.50	ft

Results

Discharge	237.44	ft^3/s
Flow Area	23.76	ft^2
Wetted Perimeter	17.28	ft
Hydraulic Radius	1.38	ft
Top Width	0.00	ft
Critical Depth	4.31	ft
Percent Full	100.0	%
Critical Slope	0.00547	ft/ft
Velocity	9.99	ft/s
Velocity Head	1.55	ft
Specific Energy	7.05	ft
Froude Number	0.00	
Maximum Discharge	255.42	ft^3/s
Discharge Full	237.44	ft^3/s
Slope Full	0.00500	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	ft/s

Worksheet for Culvert

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	5.50	ft
Critical Depth	4.31	ft
Channel Slope	0.00500	ft/ft
Critical Slope	0.00547	ft/ft

NEXTLIGHT
AV SOLAR RANCH ONE
FLOW CALCULATIONS ACROSS EXISTING FLUMES AND CULVERTS

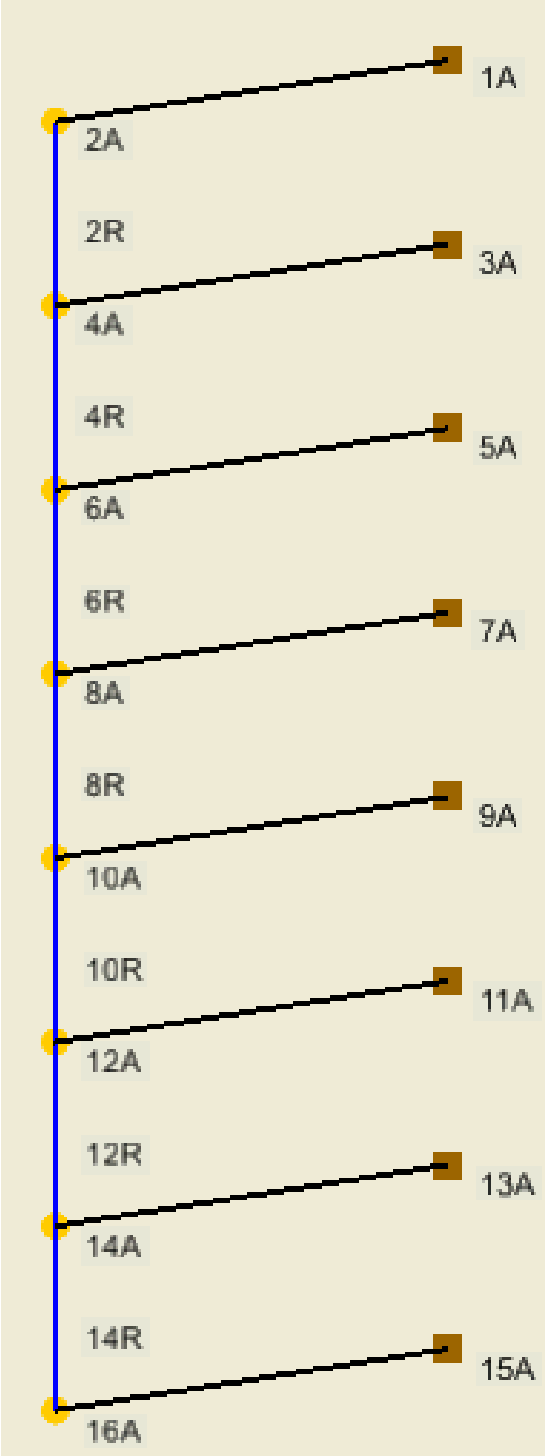
Structure Type	HEC-1 100-Year Flows (from RBF) (cfs)	Estimated 50-Year Flows (cfs)	Estimated 50-Year Burned Flows (cfs)	Estimated 50-Year B+B Flows (cfs)	Estimated 25-Year Flows (cfs)	Estimated 10-Year Flows (cfs)	Estimated 5-Year Flows (cfs)	Estimated 2-Year Flows (cfs)	Calculated Capacity (cfs)	Q50 B+B Design Flows (cfs)
Flume 1	1,000	885	1,540	2,248	777	632	517	342	1,160	1,160
Flume 2	6,000	5,310	9,239	13,489	4,662	3,791	3,101	2,055	3,970	3,970
Flume 3	1,200	1,062	1,848	2,698	932	758	620	411	2,000	2,000
Flume 4	300	265	462	674	233	190	155	103	775	640
Flume 5	1,700	1,504	2,618	3,822	1,321	1,074	879	582	2,000	2,000
Culvert									240	240

FF=0.34 for Antelope Valley

	Q_{50} Clear (cfs)	Q_{50} Burned (cfs)	Q_{50} Burned & Bulked (cfs)	Area (acres)	I (in/hr)	T (min)	Peak Bulking Factor (0.0625 mi^2, DPA-5)
Sample Area	8.62	15.0	21.8	40	1.54	30	1.46
	Factor=	**1.74**	**1.46**				

APPENDIX D

MODIFIED RATIONAL METHOD TC CALCULATION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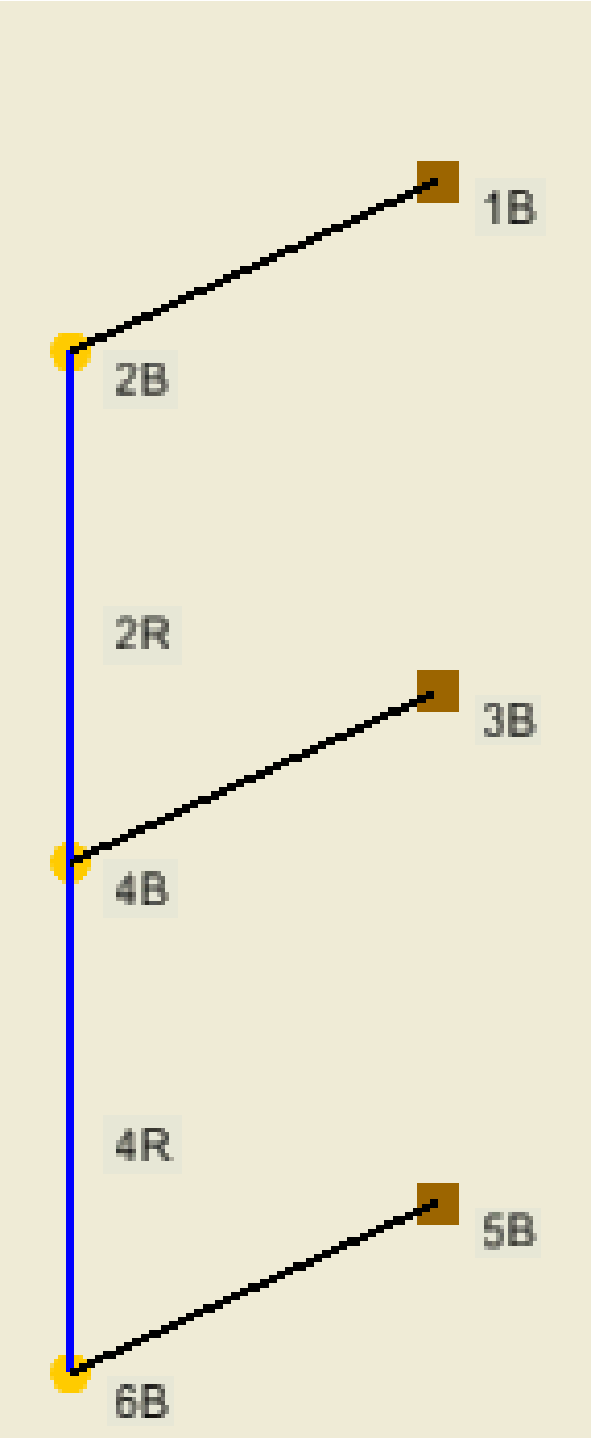
BASIN A



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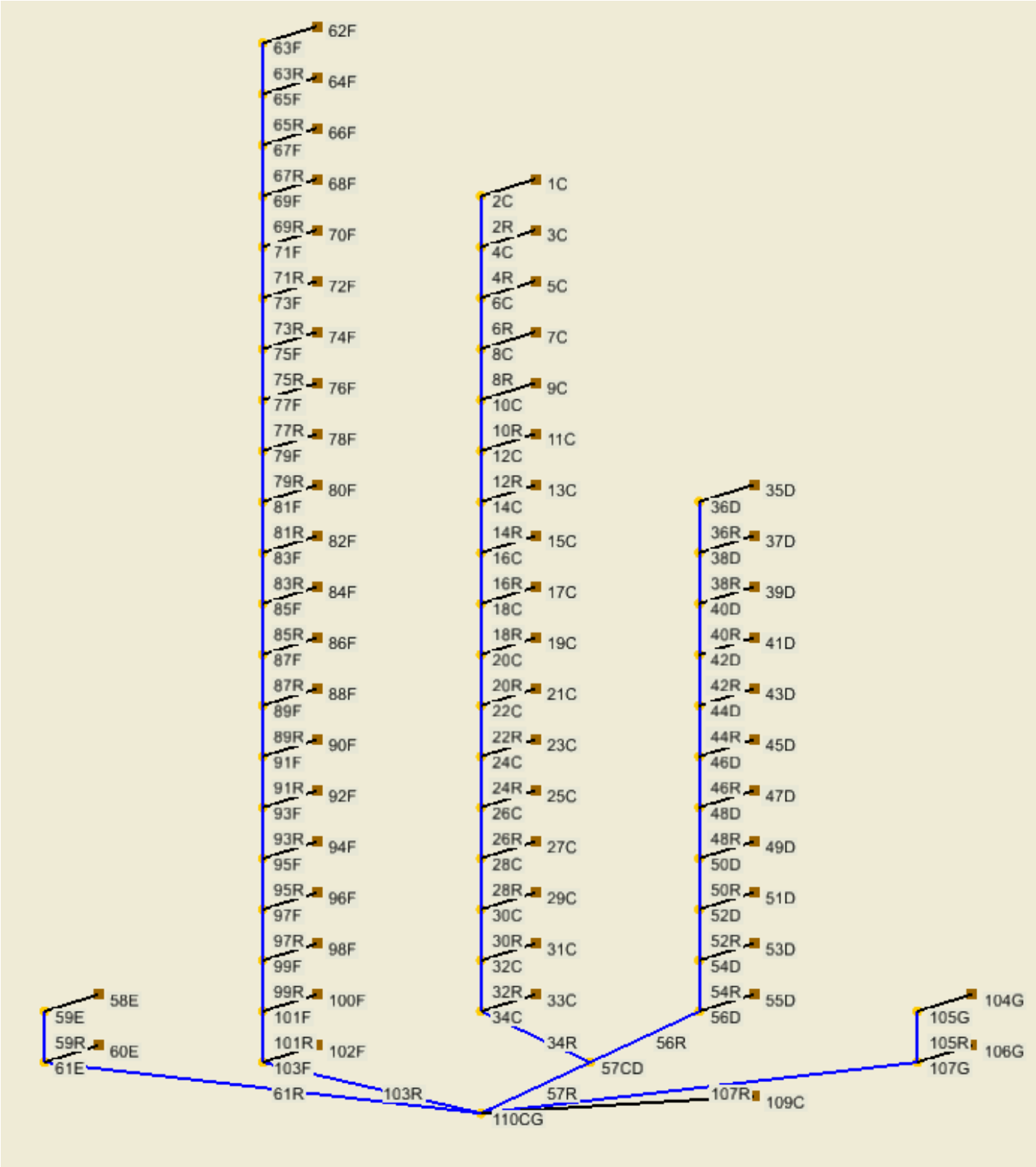
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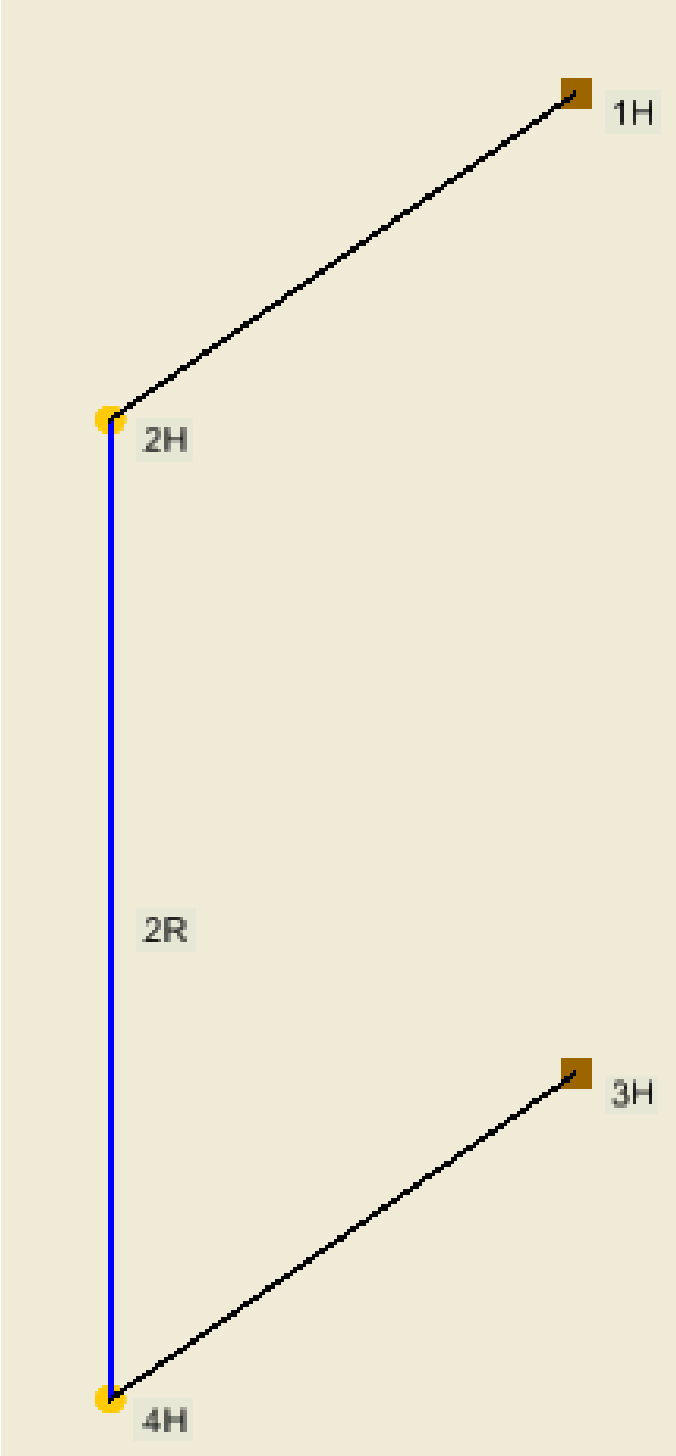

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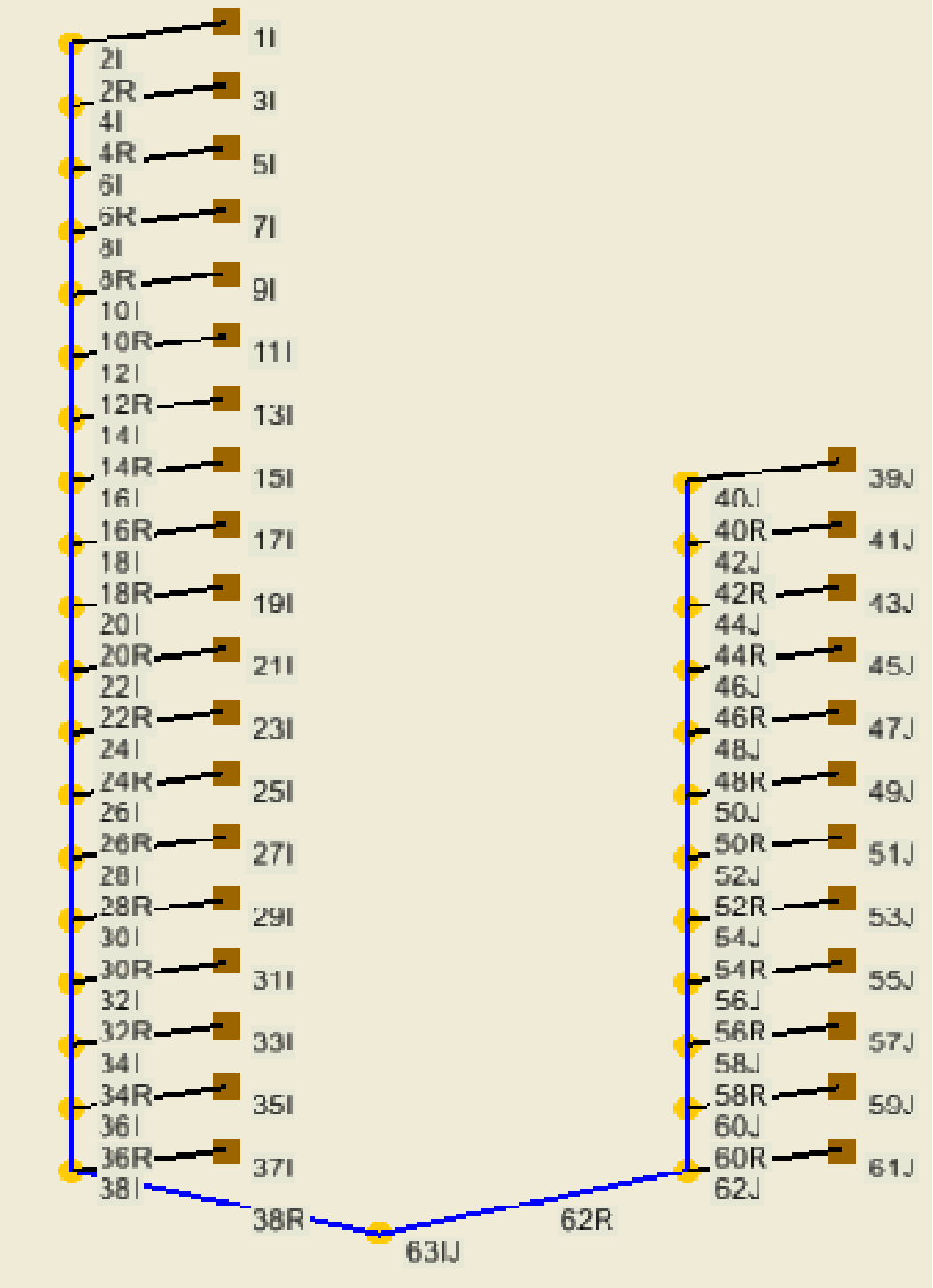
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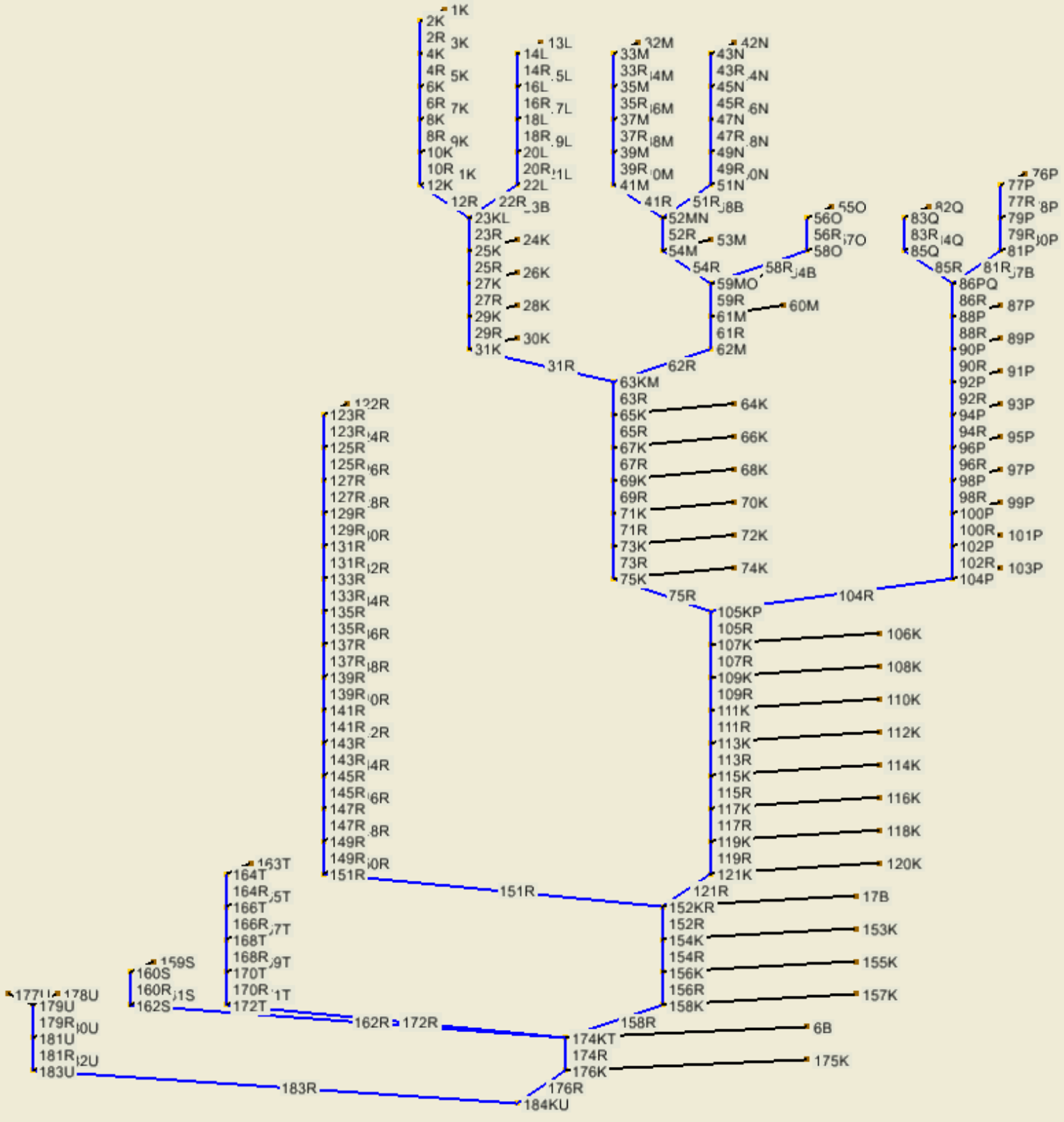
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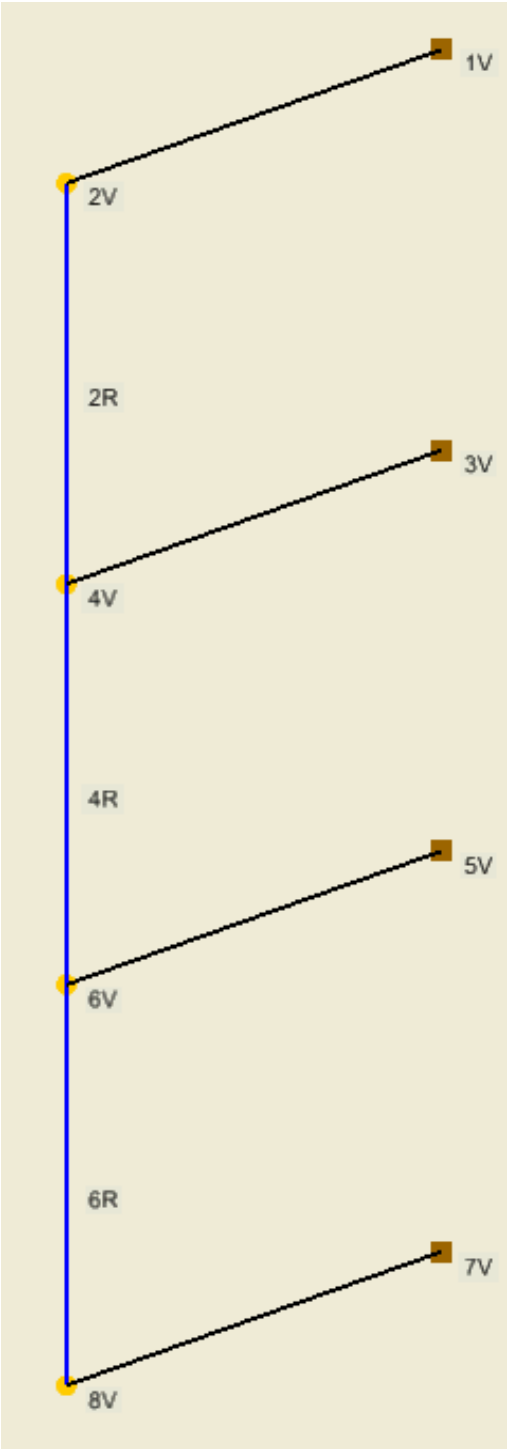
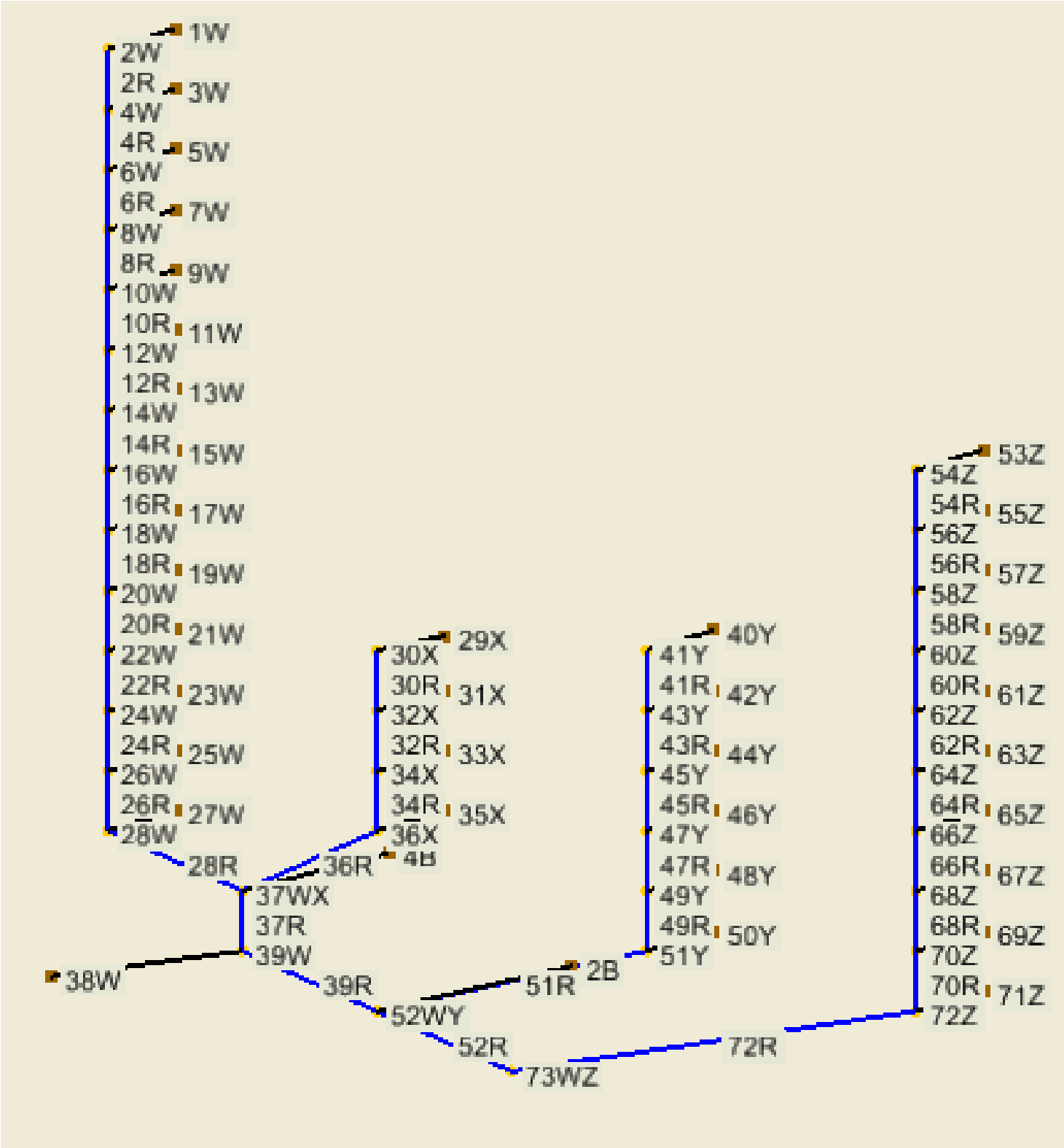
BASIN K



BASIN V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10W
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26W
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32R
33X
34X
34R
35X
36X
36R
37WX
37R
38W
39W
39R
40Y
41Y
41R
42Y
43Y
43R
44Y
45Y
45R
46Y
47Y
47R
48Y
49Y
49R
50Y
51Y
51R
2B
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52R
53Z
54Z
54R
55Z
56Z
56R
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58R
59Z
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60R
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62Z
62R
63Z
64Z
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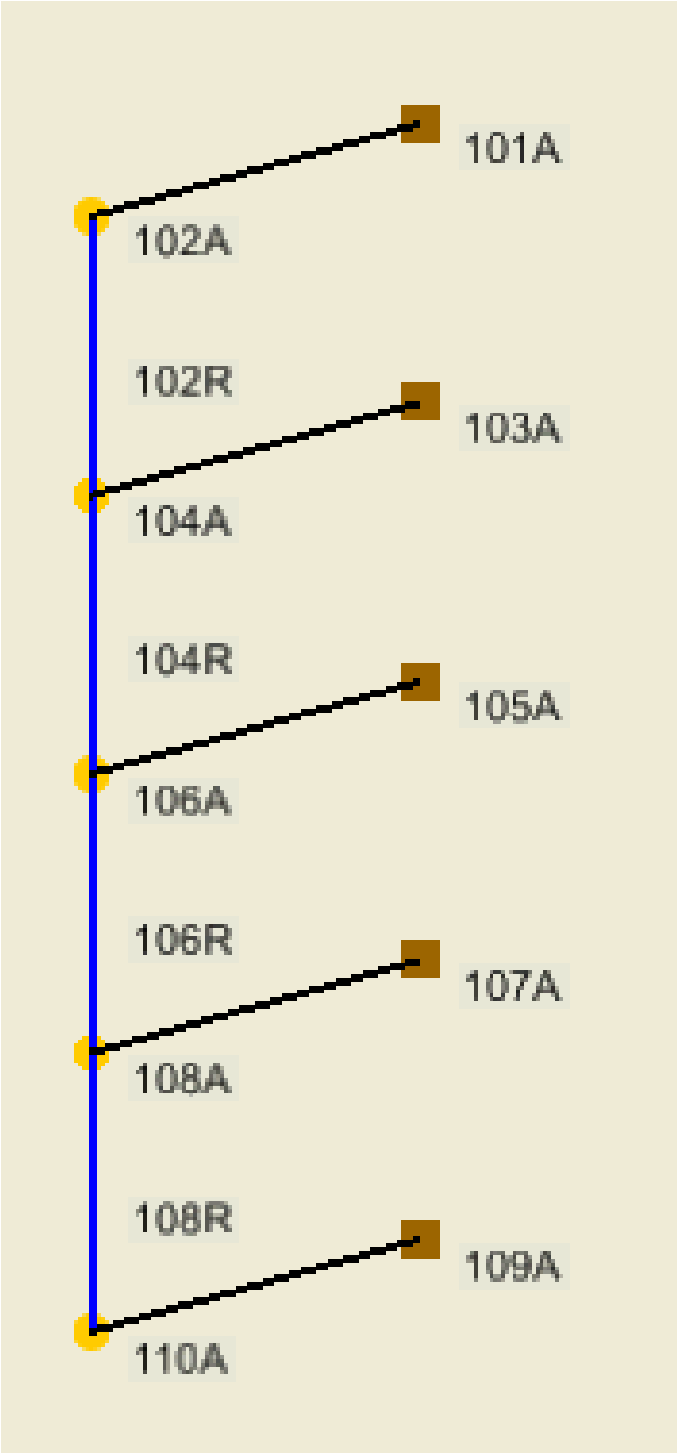
72R
73WZ

BASIN W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108R
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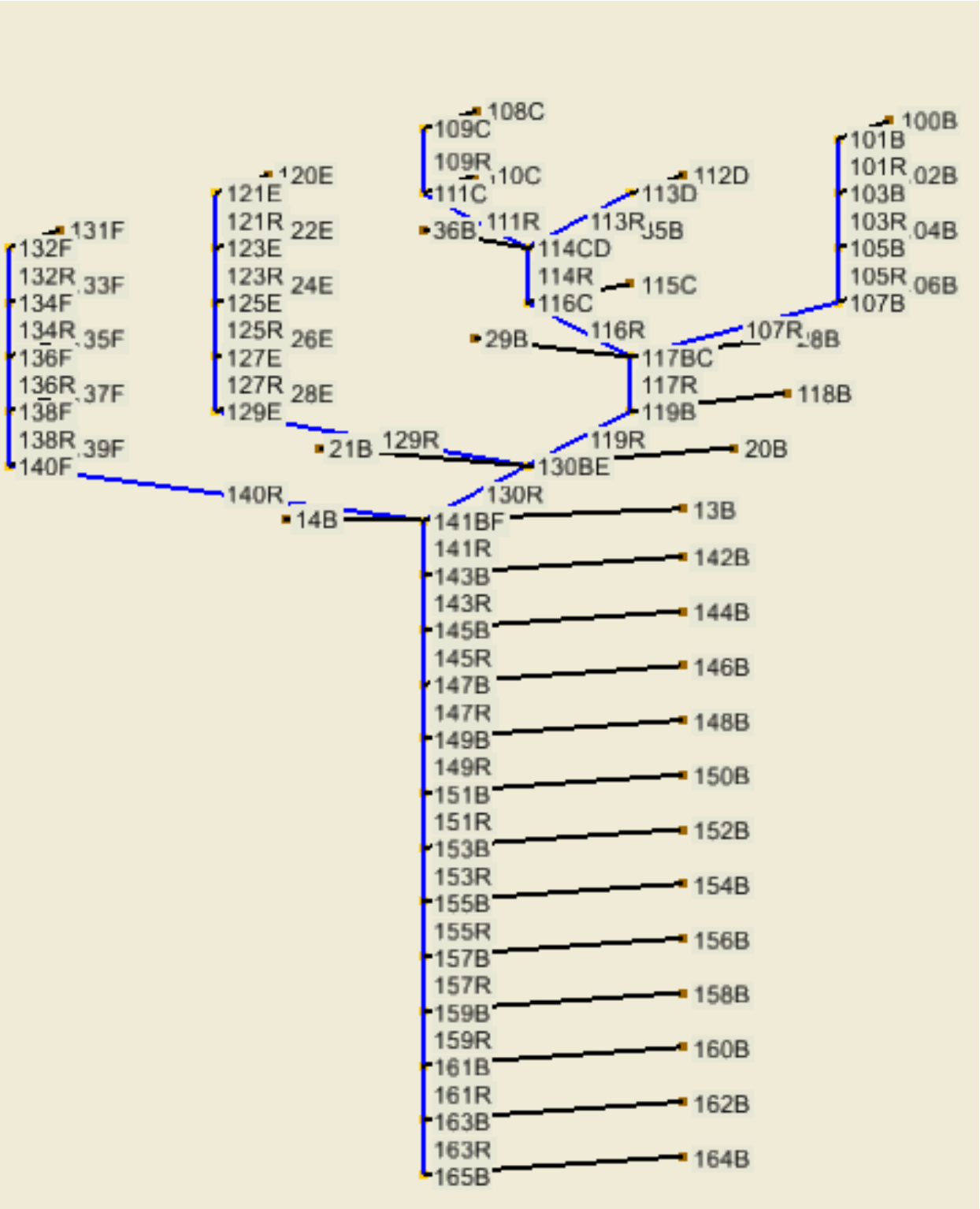
110A

BASIN100A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117R
119B
118B
119R
20B
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130R
21B
129R
14B
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13B
141R
143B
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103B
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126E
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127R
128E
129E
131F
132F
132R
133F
134F
134R
135F
136F
136R
137F
138F
138R
139F
140F
140R

BASIN100B

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	2	124	2,398	0.0092	1.6	30	0.42	0.10	0.11	1.85	3.17	3.25
NEX	3A	39.8	0.01	2	124	1,498	0.0097	1.5	30	0.38	0.10	0.11	1.66	2.82	2.89
NEX	5A	38.3	0.01	2	124	1,253	0.0091	1.4	30	0.36	0.10	0.11	1.52	2.56	2.62
NEX	7A	32.4	0.01	2	124	1,114	0.0101	1.4	30	0.35	0.10	0.11	1.25	2.10	2.15
NEX	9A	27.7	0.01	2	124	1,242	0.0087	1.3	30	0.34	0.10	0.11	1.04	1.74	1.78
NEX	11A	33.9	0.01	2	124	1,469	0.0099	1.3	30	0.34	0.10	0.11	1.27	2.12	2.17
NEX	13A	38.9	0.01	2	134	1,177	0.0087	1.3	30	0.33	0.10	0.11	1.41	2.35	2.41
NEX	15A	38.3	0.01	2	134	994	0.0104	1.2	30	0.32	0.10	0.11	1.35	2.24	2.29
Outlet 6B															
NEX	1B	22.1	0.01	2	124	2,664	0.0093	1.3	30	0.34	0.10	0.11	0.83	1.39	1.42
NEX	3B	39.9	0.01	2	124	1,443	0.0124	1.2	30	0.32	0.10	0.11	1.40	2.33	2.38
NEX	5B	39.0	0.01	2	124	732	0.0103	1.2	30	0.32	0.10	0.11	1.37	2.27	2.33
Outlet 110CG															
NEX	1C	17.8	0.01	2	124	1,591	0.0201	2.4	30	0.62	0.10	0.11	1.21	2.18	2.23
NEX	3C	15.5	0.01	2	124	1,045	0.0180	2.3	30	0.60	0.10	0.11	1.02	1.83	1.87
NEX	5C	29.5	0.01	2	124	1,347	0.0173	2.2	30	0.58	0.10	0.11	1.88	3.35	3.44
NEX	7C	25.1	0.01	2	124	1,037	0.0175	2.2	30	0.57	0.10	0.11	1.57	2.80	2.87
NEX	9C	20.7	0.01	2	124	733	0.0164	2.2	30	0.56	0.10	0.11	1.28	2.27	2.32
NEX	11C	25.8	0.01	2	124	713	0.0162	2.1	30	0.55	0.10	0.11	1.56	2.76	2.83
NEX	13C	31.9	0.01	2	124	939	0.0156	2.1	30	0.55	0.10	0.11	1.93	3.42	3.50
NEX	15C	34.6	0.01	2	124	903	0.0126	2.1	30	0.54	0.10	0.11	2.06	3.64	3.73
NEX	17C	32.8	0.01	2	124	1,112	0.0142	2.0	30	0.52	0.10	0.11	1.88	3.31	3.39
NEX	19C	23.2	0.01	2	124	1,160	0.0121	1.9	30	0.50	0.10	0.11	1.28	2.24	2.30
NEX	21C	29.7	0.01	2	124	1,549	0.0113	1.8	30	0.47	0.10	0.11	1.54	2.68	2.74
NEX	23C	35.4	0.01	2	124	1,993	0.0106	1.6	30	0.42	0.10	0.11	1.64	2.81	2.88
NEX	25C	28.1	0.01	2	124	1,765	0.0089	1.5	30	0.39	0.10	0.11	1.21	2.05	2.11
NEX	27C	35.0	0.01	2	124	1,922	0.0082	1.4	30	0.36	0.10	0.11	1.39	2.34	2.40
NEX	29C	34.0	0.01	2	124	1,457	0.0104	1.4	30	0.35	0.10	0.11	1.31	2.20	2.25
NEX	31C	29.3	0.01	2	124	1,251	0.0108	1.3	30	0.34	0.10	0.11	1.10	1.84	1.88
NEX	33C	35.6	0.01	2	124	2,107	0.0110	1.3	30	0.33	0.10	0.11	1.29	2.15	2.20
NEX	109C	21.4	0.01	2	124	2,279	0.0094	1.2	30	0.32	0.10	0.11	0.75	1.25	1.28
NEX	35D	16.7	0.01	2	134	1,299	0.0130	2.0	30	0.52	0.10	0.11	0.96	1.69	1.73
NEX	37D	29.0	0.01	2	124	1,308	0.0138	1.9	30	0.50	0.10	0.11	1.60	2.80	2.87
NEX	39D	29.9	0.01	2	124	1,530	0.0105	1.9	30	0.48	0.10	0.11	1.58	2.75	2.82

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	41D	21.4	0.01	2	124	1,185	0.0107	1.7	30	0.45	0.10	0.11	1.06	1.83	1.88
NEX	43D	26.1	0.01	2	124	1,524	0.0106	1.6	30	0.42	0.10	0.11	1.21	2.07	2.13
NEX	45D	30.2	0.01	2	134	1,697	0.0084	1.5	30	0.40	0.10	0.11	1.33	2.27	2.32
NEX	47D	30.2	0.01	2	134	1,239	0.0099	1.4	30	0.36	0.10	0.11	1.20	2.02	2.07
NEX	49D	39.0	0.01	2	134	1,500	0.0087	1.4	30	0.35	0.10	0.11	1.50	2.52	2.58
NEX	51D	31.8	0.01	2	134	1,258	0.0114	1.3	30	0.34	0.10	0.11	1.19	1.99	2.04
NEX	53D	23.0	0.01	2	134	1,118	0.0076	1.3	30	0.34	0.10	0.11	0.86	1.44	1.47
NEX	55D	14.6	0.01	2	124	1,256	0.0099	1.3	30	0.33	0.10	0.11	0.53	0.88	0.90
NEX	58E	12.6	0.01	2	124	1,440	0.0115	1.3	30	0.33	0.10	0.11	0.46	0.76	0.78
NEX	60E	28.7	0.01	2	124	3,334	0.0115	1.2	30	0.32	0.10	0.11	1.01	1.68	1.72
NEX	62F	16.5	0.01	2	124	1,673	0.0210	2.4	30	0.61	0.10	0.11	1.11	1.99	2.04
NEX	64F	24.0	0.01	2	124	955	0.0200	2.3	30	0.60	0.10	0.11	1.58	2.83	2.90
NEX	66F	33.9	0.01	2	124	1,251	0.0183	2.2	30	0.58	0.10	0.11	2.16	3.85	3.95
NEX	68F	29.6	0.01	2	124	1,122	0.0174	2.2	30	0.57	0.10	0.11	1.86	3.30	3.39
NEX	70F	25.9	0.01	2	124	874	0.0146	2.2	30	0.56	0.10	0.11	1.60	2.84	2.91
NEX	72F	26.7	0.01	2	124	907	0.0150	2.1	30	0.55	0.10	0.11	1.62	2.87	2.94
NEX	74F	29.9	0.01	2	124	876	0.0140	2.1	30	0.54	0.10	0.11	1.78	3.14	3.22
NEX	76F	39.5	0.01	2	124	987	0.0160	2.0	30	0.52	0.10	0.11	2.26	3.98	4.08
NEX	78F	38.8	0.01	2	124	900	0.0130	1.9	30	0.50	0.10	0.11	2.13	3.74	3.83
NEX	80F	39.6	0.01	2	124	831	0.0143	1.9	30	0.48	0.10	0.11	2.09	3.65	3.74
NEX	82F	39.9	0.01	2	124	829	0.0121	1.8	30	0.46	0.10	0.11	2.02	3.50	3.59
NEX	84F	39.8	0.01	2	124	853	0.0117	1.7	30	0.44	0.10	0.11	1.93	3.33	3.41
NEX	86F	39.1	0.01	2	124	1,094	0.0099	1.7	30	0.44	0.10	0.11	1.89	3.26	3.35
NEX	88F	22.9	0.01	2	124	845	0.0078	1.6	30	0.42	0.10	0.11	1.06	1.82	1.86
NEX	90F	36.2	0.01	2	124	1,675	0.0088	1.5	30	0.39	0.10	0.11	1.55	2.64	2.70
NEX	92F	23.7	0.01	2	124	1,298	0.0095	1.4	30	0.36	0.10	0.11	0.94	1.58	1.62
NEX	94F	17.9	0.01	2	124	1,020	0.0084	1.4	30	0.35	0.10	0.11	0.69	1.16	1.19
NEX	96F	22.5	0.01	2	124	1,387	0.0064	1.3	30	0.34	0.10	0.11	0.84	1.41	1.44
NEX	98F	21.4	0.01	2	124	1,222	0.0099	1.3	30	0.34	0.10	0.11	0.80	1.34	1.37
NEX	100F	16.7	0.01	2	124	1,247	0.0115	1.3	30	0.33	0.10	0.11	0.61	1.01	1.04
NEX	102F	23.0	0.01	2	124	3,287	0.0111	1.2	30	0.32	0.10	0.11	0.81	1.34	1.38
NEX	104G	18.2	0.01	2	134	1,898	0.0104	1.3	30	0.33	0.10	0.11	0.66	1.10	1.13
NEX	106G	39.9	0.01	2	134	2,469	0.0090	1.2	30	0.32	0.10	0.11	1.40	2.33	2.38
Outlet 4H															
NEX	1H	19.0	0.01	2	134	1,718	0.0090	1.3	30	0.33	0.10	0.11	0.69	1.15	1.18

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	3H	39.5	0.01	2	134	1,850	0.0112	1.2	30	0.32	0.10	0.11	1.39	3.63	3.72
Outlet 63IJ															
NEX	1I	10.8	0.01	2	124	1,416	0.0169	2.2	30	0.58	0.10	0.11	0.69	1.23	1.26
NEX	3I	18.1	0.01	2	124	929	0.0163	2.2	30	0.57	0.10	0.11	1.13	2.01	2.06
NEX	5I	12.8	0.01	2	124	459	0.0169	2.2	30	0.57	0.10	0.11	0.80	1.43	1.46
NEX	7I	16.5	0.01	2	134	616	0.0136	2.2	30	0.56	0.10	0.11	1.02	1.81	1.85
NEX	9I	25.9	0.01	2	134	879	0.0149	2.2	30	0.56	0.10	0.11	1.60	2.84	2.91
NEX	11I	26.8	0.01	2	134	968	0.0127	2.1	30	0.55	0.10	0.11	1.62	2.87	2.94
NEX	13I	31.1	0.01	2	134	1,180	0.0126	2.1	30	0.53	0.10	0.11	1.81	3.20	3.28
NEX	15I	37.7	0.01	2	134	1,443	0.0129	2.0	30	0.52	0.10	0.11	2.16	3.80	3.89
NEX	17I	27.6	0.01	2	134	900	0.0119	1.9	30	0.49	0.10	0.11	1.49	2.60	2.67
NEX	19I	25.5	0.01	2	134	838	0.0125	1.9	30	0.48	0.10	0.11	1.35	2.35	2.41
NEX	21I	37.2	0.01	2	134	1,165	0.0103	1.8	30	0.46	0.10	0.11	1.88	3.26	3.35
NEX	23I	34.3	0.01	2	134	1,034	0.0107	1.7	30	0.44	0.10	0.11	1.66	2.87	2.94
NEX	25I	38.0	0.01	2	134	1,049	0.0101	1.6	30	0.42	0.10	0.11	1.76	3.02	3.09
NEX	27I	39.5	0.01	2	134	2,077	0.0093	1.5	30	0.38	0.10	0.11	1.65	2.80	2.87
NEX	29I	29.4	0.01	2	134	1,661	0.0096	1.4	30	0.35	0.10	0.11	1.13	1.90	1.95
NEX	31I	39.6	0.01	2	134	1,306	0.0098	1.3	30	0.34	0.10	0.11	1.48	2.48	2.54
NEX	33I	39.3	0.01	2	134	1,279	0.0066	1.3	30	0.34	0.10	0.11	1.47	2.46	2.52
NEX	35I	26.7	0.01	2	134	878	0.0114	1.3	30	0.33	0.10	0.11	0.97	1.62	1.66
NEX	37I	37.9	0.01	2	134	1,809	0.0076	1.2	30	0.32	0.10	0.11	1.33	2.21	2.26
NEX	39J	27.8	0.01	2	134	1,645	0.0119	2.0	30	0.52	0.10	0.11	1.59	2.80	2.87
NEX	41J	18.8	0.01	2	134	760	0.0129	1.9	30	0.50	0.10	0.11	1.03	1.81	1.85
NEX	43J	32.3	0.01	2	134	1,022	0.0128	1.9	30	0.49	0.10	0.11	1.74	3.04	3.12
NEX	45J	32.3	0.01	2	134	1,126	0.0115	1.8	30	0.47	0.10	0.11	1.67	2.90	2.98
NEX	47J	27.3	0.01	2	134	1,116	0.0106	1.7	30	0.44	0.10	0.11	1.32	2.28	2.34
NEX	49J	22.5	0.01	2	134	1,019	0.0104	1.6	30	0.42	0.10	0.11	1.04	1.78	1.83
NEX	51J	18.6	0.01	2	134	1,085	0.0098	1.5	30	0.38	0.10	0.11	0.78	1.32	1.35
NEX	53J	35.3	0.01	2	134	1,400	0.0103	1.5	30	0.38	0.10	0.11	1.48	2.51	2.57
NEX	55J	40.0	0.01	2	134	1,510	0.0079	1.4	30	0.36	0.10	0.11	1.58	2.66	2.73
NEX	57J	40.0	0.01	2	134	1,410	0.0090	1.3	30	0.34	0.10	0.11	1.50	2.50	2.57
NEX	59J	37.3	0.01	2	134	1,434	0.0091	1.3	30	0.33	0.10	0.11	1.35	2.25	2.31
NEX	61J	28.5	0.01	2	134	2,082	0.0073	1.2	30	0.32	0.10	0.11	1.00	1.66	1.70
Outlet 184KU															
NEX	1K	464.4	0.01	2	120	1,160	0.0500	3.1	30	0.80	0.20	0.21	78.02	108.70	111.42

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	3K	21.5	0.01	2	124	571	0.0305	2.5	30	0.64	0.10	0.11	1.51	2.72	2.79
NEX	5K	39.6	0.01	2	124	1,014	0.0204	2.4	30	0.63	0.10	0.11	2.74	4.93	5.06
NEX	7K	39.6	0.01	2	124	1,054	0.0183	2.4	30	0.62	0.10	0.11	2.70	4.85	4.97
NEX	9K	30.7	0.01	2	134	957	0.0161	2.3	30	0.60	0.10	0.11	2.03	3.63	3.72
NEX	11K	33.2	0.01	2	134	1,511	0.0147	2.3	30	0.59	0.10	0.11	2.15	3.84	3.94
NEX	83B	26.8	0.01	2	134	709	0.0130	2.2	30	0.56	0.10	0.11	1.65	2.93	3.00
NEX	24K	30.9	0.01	2	134	778	0.0132	2.2	30	0.56	0.10	0.11	1.90	3.38	3.46
NEX	26K	32.3	0.01	2	134	881	0.0107	2.2	30	0.56	0.10	0.11	1.99	3.53	3.62
NEX	28K	28.9	0.01	2	134	934	0.0105	2.1	30	0.55	0.10	0.11	1.75	3.10	3.18
NEX	30K	21.2	0.01	2	134	853	0.0132	2.1	30	0.54	0.10	0.11	1.26	2.23	2.28
NEX	64K	31.4	0.01	2	134	784	0.0105	2.1	30	0.55	0.10	0.11	1.90	3.37	3.45
NEX	66K	37.2	0.01	2	124	770	0.0108	2.1	30	0.54	0.10	0.11	2.21	3.91	4.00
NEX	68K	34.7	0.01	2	124	992	0.0100	2.0	30	0.52	0.10	0.11	1.98	3.49	3.58
NEX	70K	19.1	0.01	2	124	975	0.0088	1.9	30	0.50	0.10	0.11	1.05	1.84	1.89
NEX	72K	10.9	0.01	2	124	715	0.0070	1.9	30	0.49	0.10	0.11	0.59	1.03	1.05
NEX	74K	24.2	0.01	2	124	1,168	0.0128	1.9	30	0.48	0.10	0.11	1.28	2.23	2.29
NEX	106K	32.1	0.01	2	124	913	0.0110	1.8	30	0.47	0.10	0.11	1.66	2.89	2.96
NEX	108K	37.7	0.01	2	124	1,081	0.0100	1.8	30	0.46	0.10	0.11	1.91	3.31	3.39
NEX	110K	39.4	0.01	2	124	1,044	0.0124	1.7	30	0.44	0.10	0.11	1.91	3.29	3.38
NEX	112K	39.8	0.01	2	124	1,121	0.0111	1.6	30	0.42	0.10	0.11	1.84	3.16	3.24
NEX	114K	40.0	0.01	2	124	960	0.0095	1.5	30	0.40	0.10	0.11	1.76	3.00	3.08
NEX	116K	39.8	0.01	2	124	919	0.0099	1.5	30	0.38	0.10	0.11	1.66	2.82	2.89
NEX	118K	39.8	0.01	2	134	835	0.0198	1.4	30	0.36	0.10	0.11	1.58	2.66	2.72
NEX	120K	22.4	0.01	2	134	1,042	0.0077	1.4	30	0.35	0.10	0.11	0.86	1.44	1.48
NEX	15B	39.1	0.01	2	134	1,212	0.0083	1.4	30	0.35	0.10	0.11	1.51	2.53	2.59
NEX	153K	38.8	0.01	2	134	2,066	0.0097	1.3	30	0.34	0.10	0.11	1.45	2.43	2.49
NEX	155K	27.3	0.01	2	134	1,710	0.0088	1.3	30	0.33	0.10	0.11	0.99	1.65	1.69
NEX	157K	22.1	0.01	2	134	1,697	0.0087	1.2	30	0.32	0.10	0.11	0.78	1.29	1.32
NEX	6B	39.7	0.01	2	134	1,115	0.0092	1.2	30	0.32	0.10	0.11	1.40	2.32	2.38
NEX	175K	28.5	0.01	2	134	1,834	0.0081	1.2	30	0.32	0.10	0.11	1.00	1.66	1.70
NEX	13L	28.8	0.01	2	134	659	0.0212	2.6	30	0.66	0.10	0.11	2.09	3.78	3.87
NEX	15L	24.8	0.01	2	134	724	0.0209	2.5	30	0.65	0.10	0.11	1.77	3.20	3.28
NEX	17L	25.3	0.01	2	134	1,152	0.0170	2.5	30	0.64	0.10	0.11	1.78	3.21	3.29
NEX	19L	21.3	0.01	2	134	1,374	0.0164	2.4	30	0.62	0.10	0.11	1.45	2.61	2.67
NEX	21L	17.9	0.01	2	134	1,523	0.0156	2.3	30	0.60	0.10	0.11	1.18	2.11	2.16

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	32M	935.0	0.90	2	120	1,000	0.2000	3.1	10	1.33	0.41	0.85	1,057.02	1,078.74	1,105.70
NEX	34M	31.7	0.01	2	134	1,319	0.0217	2.6	30	0.66	0.10	0.11	2.30	4.16	4.26
NEX	36M	29.5	0.01	2	134	1,114	0.0194	2.5	30	0.64	0.10	0.11	2.08	3.74	3.84
NEX	38M	27.9	0.01	2	134	1,014	0.0181	2.4	30	0.62	0.10	0.11	1.90	3.41	3.50
NEX	40M	39.2	0.01	2	134	1,409	0.0155	2.4	30	0.61	0.10	0.11	2.63	4.71	4.83
NEX	68B	23.0	0.01	2	134	885	0.0208	2.3	30	0.60	0.10	0.11	1.52	2.72	2.79
NEX	53M	18.1	0.01	2	134	1,259	0.0092	2.2	30	0.58	0.10	0.11	1.15	2.05	2.11
NEX	64B	24.1	0.01	2	134	934	0.0115	2.2	30	0.57	0.10	0.11	1.51	2.69	2.75
NEX	60M	21.5	0.01	2	134	1,075	0.0132	2.2	30	0.56	0.10	0.11	1.32	2.35	2.41
NEX	42N	959.0	0.01	2	120	2,000	0.0500	3.1	30	0.80	0.20	0.21	161.11	224.46	230.07
NEX	44N	39.5	0.01	2	134	684	0.0517	2.6	30	0.66	0.10	0.11	2.87	5.19	5.32
NEX	46N	38.9	0.01	2	134	702	0.0282	2.5	30	0.65	0.10	0.11	2.78	5.02	5.14
NEX	48N	37.9	0.01	2	134	938	0.0231	2.5	30	0.64	0.10	0.11	2.67	4.81	4.93
NEX	50N	32.3	0.01	2	134	1,933	0.0092	2.4	30	0.62	0.10	0.11	2.20	3.95	4.05
NEX	55O	35.7	0.01	2	134	2,369	0.0122	2.4	30	0.62	0.10	0.11	2.43	4.37	4.48
NEX	57O	19.0	0.01	2	134	1,288	0.0125	2.4	30	0.61	0.10	0.11	1.27	2.28	2.34
NEX	76P	199.8	0.01	2	120	640	0.0500	3.1	19	0.99	0.32	0.33	65.29	79.82	81.81
NEX	78P	26.5	0.01	2	124	1,220	0.0087	2.6	30	0.66	0.10	0.11	1.92	3.47	3.56
NEX	80P	39.7	0.01	2	134	2,419	0.0185	2.5	30	0.64	0.10	0.11	2.79	5.03	5.16
NEX	57B	40.0	0.01	2	134	949	0.0200	2.4	30	0.62	0.10	0.11	2.73	4.90	5.02
NEX	87P	40.0	0.01	2	134	856	0.0115	2.5	30	0.64	0.10	0.11	2.82	5.08	5.20
NEX	89P	40.0	0.01	2	134	1,066	0.0130	2.3	30	0.59	0.10	0.11	2.60	4.64	4.75
NEX	91P	40.0	0.01	2	134	1,323	0.0100	2.2	30	0.58	0.10	0.11	2.55	4.55	4.66
NEX	93P	38.5	0.01	2	134	1,231	0.0098	2.2	30	0.56	0.10	0.11	2.37	4.21	4.31
NEX	95P	32.9	0.01	2	124	853	0.0100	2.1	30	0.55	0.10	0.11	1.99	3.53	3.61
NEX	97P	32.3	0.01	2	124	903	0.0083	2.1	30	0.53	0.10	0.11	1.88	3.32	3.40
NEX	99P	36.0	0.01	2	124	1,173	0.0077	2.0	30	0.51	0.10	0.11	2.02	3.55	3.64
NEX	101P	22.9	0.01	2	124	832	0.0121	1.9	30	0.50	0.10	0.11	1.26	2.21	2.26
NEX	103P	12.6	0.01	2	124	949	0.0105	1.9	30	0.48	0.10	0.11	0.67	1.16	1.19
NEX	82Q	40.0	0.01	2	134	1,582	0.0272	2.6	30	0.66	0.10	0.11	2.90	5.25	5.38
NEX	84Q	40.0	0.01	2	134	1,847	0.0211	2.5	30	0.64	0.10	0.11	2.82	5.08	5.20
NEX	122R	21.6	0.01	2	134	1,940	0.0123	2.1	30	0.54	0.10	0.11	1.28	2.27	2.32
NEX	124R	32.5	0.01	2	134	1,189	0.0132	2.1	30	0.53	0.10	0.11	1.89	3.34	3.42
NEX	126R	23.9	0.01	2	134	803	0.0128	2.0	30	0.52	0.10	0.11	1.37	2.41	2.47
NEX	128R	28.8	0.01	2	134	966	0.0104	2.1	30	0.53	0.10	0.11	1.68	2.96	3.04

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	130R	29.3	0.01	2	134	795	0.0096	1.9	30	0.50	0.10	0.11	1.61	2.82	2.89
NEX	132R	27.5	0.01	2	134	759	0.0105	1.9	30	0.49	0.10	0.11	1.48	2.59	2.65
NEX	134R	27.3	0.01	2	134	740	0.0098	1.9	30	0.48	0.10	0.11	1.44	2.51	2.58
NEX	136R	29.4	0.01	2	134	849	0.0100	1.8	30	0.47	0.10	0.11	1.52	2.64	2.71
NEX	138R	36.9	0.01	2	134	960	0.0102	1.8	30	0.46	0.10	0.11	1.87	3.24	3.32
NEX	140R	27.6	0.01	2	134	705	0.0125	1.7	30	0.44	0.10	0.11	1.34	2.31	2.37
NEX	142R	36.0	0.01	2	134	966	0.0104	1.6	30	0.42	0.10	0.11	1.66	2.85	2.92
NEX	144R	39.6	0.01	2	134	1,078	0.0094	1.5	30	0.39	0.10	0.11	1.70	2.89	2.96
NEX	146R	27.4	0.01	2	134	693	0.0144	1.4	30	0.36	0.10	0.11	1.09	1.83	1.88
NEX	148R	27.6	0.01	2	134	1,266	0.0097	1.4	30	0.36	0.10	0.11	1.09	1.84	1.88
NEX	150R	20.7	0.01	2	134	1,379	0.0096	1.4	30	0.35	0.10	0.11	0.80	1.34	1.37
NEX	17B	39.1	0.01	2	134	1,212	0.0083	1.3	30	0.34	0.10	0.11	1.46	2.44	2.50
NEX	159S	39.3	0.01	2	134	2,302	0.0110	1.3	30	0.33	0.10	0.11	1.43	2.38	2.44
NEX	161S	36.7	0.01	2	134	2,012	0.0121	1.2	30	0.32	0.10	0.11	1.29	2.14	2.20
NEX	163T	16.1	0.01	2	134	1,839	0.0088	1.3	30	0.34	0.10	0.11	0.60	1.00	1.03
NEX	165T	28.5	0.01	2	134	887	0.0119	1.3	30	0.34	0.10	0.11	1.07	1.79	1.83
NEX	167T	38.0	0.01	2	134	1,078	0.0088	1.2	30	0.32	0.10	0.11	1.34	2.22	2.28
NEX	169T	39.8	0.01	2	134	1,337	0.0120	1.2	30	0.32	0.10	0.11	1.40	2.32	2.38
NEX	171T	29.2	0.01	2	134	1,813	0.0098	1.2	30	0.32	0.10	0.11	1.03	1.71	1.75
NEX	177U	29.4	0.01	2	134	3,079	0.0082	1.2	30	0.32	0.10	0.11	1.03	1.71	1.76
NEX	178U	29.1	0.01	2	134	2,590	0.0098	1.2	30	0.32	0.10	0.11	1.02	1.70	1.74
NEX	180U	31.8	0.01	2	134	2,207	0.0112	1.2	30	0.32	0.10	0.11	1.12	1.86	1.90
NEX	182U	21.3	0.01	2	134	2,448	0.0081	1.2	30	0.32	0.10	0.11	0.75	1.24	1.28
Outlet 8V															
NEX	1V	23.8	0.01	2	134	1,412	0.0103	1.2	30	0.32	0.10	0.11	0.84	1.39	1.43
NEX	3V	39.4	0.01	2	134	1,046	0.0115	1.2	30	0.32	0.10	0.11	1.39	2.30	2.36
NEX	5V	39.9	0.01	2	134	892	0.0100	1.2	30	0.32	0.10	0.11	1.40	2.33	2.38
NEX	7V	40.0	0.01	2	134	964	0.0100	1.2	30	0.32	0.10	0.11	1.41	2.34	2.40
Outlet 73WZ															
NEX	1W	24.1	0.01	2	124	1,848	0.0105	2.0	30	0.52	0.10	0.11	1.38	2.43	2.49
NEX	3W	22.3	0.01	2	124	1,007	0.0107	1.9	30	0.50	0.10	0.11	1.23	2.15	2.21
NEX	5W	26.9	0.01	2	124	1,111	0.0099	1.9	30	0.48	0.10	0.11	1.42	2.48	2.54
NEX	7W	24.7	0.01	2	124	1,118	0.0071	1.8	30	0.46	0.10	0.11	1.25	2.17	2.22
NEX	9W	35.1	0.01	2	124	1,301	0.0100	1.7	30	0.44	0.10	0.11	1.70	2.93	3.01
NEX	11W	24.8	0.01	2	124	779	0.0075	1.7	30	0.43	0.10	0.11	1.17	2.02	2.07

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	13W	36.2	0.01	2	124	915	0.0114	1.6	30	0.42	0.10	0.11	1.67	2.87	2.94
NEX	15W	33.0	0.01	2	124	796	0.0139	1.5	30	0.40	0.10	0.11	1.45	2.48	2.54
NEX	17W	39.5	0.01	2	124	930	0.0120	1.5	30	0.38	0.10	0.11	1.65	2.80	2.87
NEX	19W	32.8	0.01	2	124	774	0.0094	1.4	30	0.36	0.10	0.11	1.30	2.19	2.24
NEX	21W	35.4	0.01	2	124	1,066	0.0082	1.4	30	0.36	0.10	0.11	1.40	2.36	2.42
NEX	23W	19.1	0.01	2	134	860	0.0063	1.4	30	0.35	0.10	0.11	0.74	1.24	1.27
NEX	25W	11.4	0.01	2	134	684	0.0073	1.4	30	0.35	0.10	0.11	0.44	0.74	0.76
NEX	27W	22.7	0.01	2	134	1,949	0.0103	1.3	30	0.34	0.10	0.11	0.85	1.42	1.46
NEX	4B	15.1	0.01	2	134	642	0.0098	1.3	30	0.34	0.10	0.11	0.56	0.94	0.96
NEX	38W	19.2	0.01	2	134	1,430	0.0096	1.3	30	0.33	0.10	0.11	0.70	1.16	1.19
NEX	2B	27.6	0.01	2	134	1,623	0.0080	1.2	30	0.32	0.10	0.11	0.97	1.61	1.65
NEX	29X	7.3	0.01	2	124	1,088	0.0076	1.4	30	0.36	0.10	0.11	0.29	0.49	0.50
NEX	31X	23.1	0.01	2	124	882	0.0135	1.4	30	0.35	0.10	0.11	0.89	1.49	1.53
NEX	33X	13.0	0.01	2	124	429	0.0129	1.3	30	0.34	0.10	0.11	0.49	0.82	0.84
NEX	35X	18.5	0.01	2	134	1,115	0.0128	1.3	30	0.34	0.10	0.11	0.69	1.16	1.18
NEX	40Y	6.4	0.01	2	124	970	0.0089	1.4	30	0.36	0.10	0.11	0.25	0.42	0.43
NEX	42Y	11.2	0.01	2	124	831	0.0114	1.4	30	0.36	0.10	0.11	0.44	0.74	0.76
NEX	44Y	15.6	0.01	2	124	883	0.0107	1.4	30	0.35	0.10	0.11	0.60	1.01	1.03
NEX	46Y	9.5	0.01	2	124	390	0.0168	1.3	30	0.34	0.10	0.11	0.36	0.60	0.61
NEX	48Y	13.1	0.01	2	134	658	0.0167	1.3	30	0.33	0.10	0.11	0.48	0.80	0.82
NEX	50Y	24.4	0.01	2	134	1,416	0.0105	1.3	30	0.33	0.10	0.11	0.89	1.48	1.52
NEX	53Z	12.8	0.01	2	124	1,273	0.0132	1.5	30	0.40	0.10	0.11	0.56	0.96	0.98
NEX	55Z	24.9	0.01	2	124	1,086	0.0117	1.5	30	0.39	0.10	0.11	1.07	1.82	1.86
NEX	57Z	25.8	0.01	2	124	863	0.0135	1.4	30	0.37	0.10	0.11	1.05	1.77	1.82
NEX	59Z	30.1	0.01	2	124	922	0.0123	1.4	30	0.36	0.10	0.11	1.19	2.01	2.06
NEX	61Z	28.0	0.01	2	124	907	0.0102	1.4	30	0.35	0.10	0.11	1.08	1.81	1.86
NEX	63Z	32.7	0.01	2	124	1,048	0.0113	1.4	30	0.35	0.10	0.11	1.26	2.11	2.17
NEX	65Z	25.7	0.01	2	134	1,003	0.0124	1.3	30	0.34	0.10	0.11	0.96	1.61	1.65
NEX	67Z	9.1	0.01	2	134	399	0.0147	1.3	30	0.34	0.10	0.11	0.34	0.57	0.58
NEX	69Z	24.4	0.01	2	134	1,072	0.0128	1.3	30	0.33	0.10	0.11	0.89	1.48	1.52
NEX	71Z	27.0	0.01	2	134	1,351	0.0092	1.2	30	0.32	0.10	0.11	0.95	1.58	1.62
Outlet 110A															
NEX	101A	8.2	0.01	2	124	1,080	0.0117	1.5	30	0.40	0.10	0.11	0.36	0.61	0.63
NEX	103A	17.4	0.01	2	124	846	0.0126	1.5	30	0.38	0.10	0.11	0.73	1.24	1.27
NEX	105A	18.4	0.01	2	124	782	0.0142	1.4	30	0.37	0.10	0.11	0.75	1.27	1.30

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	107A	24.3	0.01	2	120	822	0.0118	1.4	30	0.36	0.10	0.11	0.96	1.62	1.66
NEX	109A	21.0	0.01	2	120	717	0.0102	1.4	30	0.36	0.10	0.11	0.83	1.40	1.43
Outlet 165B															
NEX	13B	30.0	0.01	2	124	1,041	0.0084	2.2	30	0.56	0.10	0.11	1.85	3.28	3.36
NEX	14B	22.1	0.01	2	134	2,097	0.0097	2.2	30	0.57	0.10	0.11	1.39	2.47	2.53
NEX	20B	38.7	0.01	2	124	1,100	0.0114	2.2	30	0.58	0.10	0.11	2.47	4.40	4.51
NEX	21B	11.2	0.01	2	134	976	0.0116	2.2	30	0.58	0.10	0.11	0.71	1.27	1.30
NEX	28B	24.5	0.01	2	134	1,210	0.0123	2.4	30	0.62	0.10	0.11	1.67	3.00	3.07
NEX	29B	7.6	0.01	2	124	918	0.0157	2.4	30	0.62	0.10	0.11	0.52	0.93	0.96
NEX	35B	15.5	0.01	2	124	1,532	0.0248	2.5	30	0.65	0.10	0.11	1.11	2.00	2.05
NEX	36B	29.0	0.01	2	124	1,706	0.0265	2.6	30	0.66	0.10	0.11	2.11	3.81	3.91
NEX	100B	67.1	0.01	2	120	240	0.0500	3.1	8	1.48	0.46	0.46	45.67	52.04	53.34
NEX	102B	26.0	0.01	2	124	1,058	0.0457	2.6	30	0.68	0.10	0.11	1.94	3.52	3.61
NEX	104B	24.8	0.01	2	124	1,470	0.0295	2.6	30	0.66	0.10	0.11	1.80	3.25	3.34
NEX	106B	18.1	0.01	2	124	959	0.0182	2.5	30	0.64	0.10	0.11	1.27	2.29	2.35
NEX	118B	34.1	0.01	2	124	944	0.0135	2.3	30	0.60	0.10	0.11	2.25	4.03	4.13
NEX	142B	27.0	0.01	2	124	872	0.0100	2.1	30	0.55	0.10	0.11	1.63	2.89	2.96
NEX	144B	24.7	0.01	2	124	1,127	0.0100	2.1	30	0.53	0.10	0.11	1.44	2.54	2.60
NEX	146B	26.0	0.01	2	124	1,083	0.0087	2.0	30	0.51	0.10	0.11	1.46	2.56	2.63
NEX	148B	22.6	0.01	2	124	872	0.0064	1.9	30	0.49	0.10	0.11	1.22	2.13	2.18
NEX	150B	28.5	0.01	2	124	1,358	0.0100	1.8	30	0.46	0.10	0.11	1.44	2.50	2.56
NEX	152B	23.4	0.01	2	124	1,217	0.0094	1.7	30	0.44	0.10	0.11	1.13	1.95	2.00
NEX	154B	20.9	0.01	2	124	807	0.0117	1.6	30	0.42	0.10	0.11	0.97	1.66	1.70
NEX	156B	26.1	0.01	2	124	966	0.0109	1.6	30	0.41	0.10	0.11	1.18	2.02	2.07
NEX	158B	26.4	0.01	2	124	973	0.0103	1.5	30	0.40	0.10	0.11	1.16	1.98	2.03
NEX	160B	29.7	0.01	2	124	1,044	0.0088	1.5	30	0.39	0.10	0.11	1.27	2.16	2.22
NEX	162B	27.9	0.01	2	124	1,101	0.0100	1.5	30	0.38	0.10	0.11	1.17	1.98	2.03
NEX	164B	25.2	0.01	2	124	1,034	0.0097	1.5	30	0.38	0.10	0.11	1.05	1.78	1.83
NEX	108C	959.0	0.01	2	120	2,000	0.0500	3.1	30	0.80	0.20	0.21	161.11	224.46	230.07
NEX	110C	39.7	0.01	2	124	1,568	0.0397	2.6	30	0.67	0.10	0.11	2.93	5.30	5.43
NEX	115C	12.0	0.01	2	124	949	0.0196	2.5	30	0.64	0.10	0.11	0.84	1.52	1.56
NEX	112D	37.7	0.01	2	124	2,150	0.0278	2.6	30	0.67	0.10	0.11	2.78	5.03	5.16
NEX	120E	31.1	0.01	2	124	2,049	0.0310	2.6	30	0.66	0.10	0.11	2.26	4.08	4.19
NEX	122E	18.9	0.01	2	124	866	0.0304	2.5	30	0.65	0.10	0.11	1.35	2.44	2.50
NEX	124E	37.4	0.01	2	134	1,753	0.0175	2.4	30	0.63	0.10	0.11	2.59	4.66	4.78

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	126E	21.3	0.01	2	134	919	0.0177	2.4	30	0.61	0.10	0.11	1.43	2.56	2.63
NEX	128E	16.6	0.01	2	134	904	0.0144	2.3	30	0.60	0.10	0.11	1.10	1.96	2.01
NEX	131F	13.6	0.01	2	134	906	0.0318	2.5	30	0.65	0.10	0.11	0.97	1.75	1.80
NEX	133F	26.1	0.01	2	134	1,224	0.0214	2.5	30	0.64	0.10	0.11	1.84	3.31	3.40
NEX	135F	37.2	0.01	2	134	1,787	0.0163	2.4	30	0.62	0.10	0.11	2.54	4.56	4.67
NEX	137F	24.5	0.01	2	134	979	0.0194	2.3	30	0.60	0.10	0.11	1.62	2.90	2.97
NEX	139F	14.3	0.01	2	134	790	0.0144	2.3	30	0.59	0.10	0.11	0.93	1.66	1.70

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	5	124	2,398	0.0092	2.5	30	0.63	0.10	0.11	2.77	4.98	5.11
NEX	3A	39.8	0.01	5	124	1,498	0.0097	2.2	30	0.57	0.10	0.11	2.50	4.44	4.55
NEX	5A	38.3	0.01	5	124	1,253	0.0091	2.1	30	0.54	0.10	0.11	2.28	4.03	4.13
NEX	7A	32.4	0.01	5	124	1,114	0.0101	2.0	30	0.53	0.10	0.11	1.89	3.33	3.42
NEX	9A	27.7	0.01	5	124	1,242	0.0087	2.0	30	0.51	0.10	0.11	1.55	2.73	2.79
NEX	11A	33.9	0.01	5	124	1,469	0.0099	2.0	30	0.51	0.10	0.11	1.90	3.34	3.42
NEX	13A	38.9	0.01	5	134	1,177	0.0087	1.9	30	0.50	0.10	0.11	2.14	3.75	3.84
NEX	15A	38.3	0.01	5	134	994	0.0104	1.9	30	0.48	0.10	0.11	2.02	3.52	3.61
Outlet 6B															
NEX	1B	22.1	0.01	5	124	2,664	0.0093	2.0	30	0.51	0.10	0.11	1.24	2.18	2.23
NEX	3B	39.9	0.01	5	124	1,443	0.0124	1.9	30	0.48	0.10	0.11	2.11	3.68	3.77
NEX	5B	39.0	0.01	5	124	732	0.0103	1.9	30	0.48	0.10	0.11	2.06	3.59	3.68
Outlet 110CG															
NEX	1C	17.8	0.01	5	124	1,591	0.0201	3.6	30	0.93	0.10	0.11	1.82	3.41	3.50
NEX	3C	15.5	0.01	5	124	1,045	0.0180	3.5	30	0.90	0.10	0.11	1.53	2.86	2.93
NEX	5C	29.5	0.01	5	124	1,347	0.0173	3.4	30	0.87	0.10	0.11	2.82	5.25	5.38
NEX	7C	25.1	0.01	5	124	1,037	0.0175	3.3	30	0.86	0.10	0.11	2.37	4.41	4.52
NEX	9C	20.7	0.01	5	124	733	0.0164	3.3	30	0.84	0.10	0.11	1.91	3.55	3.63
NEX	11C	25.8	0.01	5	124	713	0.0162	3.2	30	0.83	0.10	0.11	2.36	4.37	4.48
NEX	13C	31.9	0.01	5	124	939	0.0156	3.2	30	0.83	0.10	0.11	2.91	5.39	5.53
NEX	15C	34.6	0.01	5	124	903	0.0126	3.2	30	0.81	0.10	0.11	3.08	5.69	5.84
NEX	17C	32.8	0.01	5	124	1,112	0.0142	3.0	30	0.78	0.10	0.11	2.81	5.18	5.31
NEX	19C	23.2	0.01	5	124	1,160	0.0121	2.9	30	0.75	0.10	0.11	1.91	3.50	3.59
NEX	21C	29.7	0.01	5	124	1,549	0.0113	2.7	30	0.71	0.10	0.11	2.32	4.23	4.33
NEX	23C	35.4	0.01	5	124	1,993	0.0106	2.5	30	0.63	0.10	0.11	2.45	4.41	4.52
NEX	25C	28.1	0.01	5	124	1,765	0.0089	2.3	30	0.59	0.10	0.11	1.82	3.25	3.33
NEX	27C	35.0	0.01	5	124	1,922	0.0082	2.1	30	0.54	0.10	0.11	2.08	3.68	3.77
NEX	29C	34.0	0.01	5	124	1,457	0.0104	2.0	30	0.53	0.10	0.11	1.98	3.49	3.58
NEX	31C	29.3	0.01	5	124	1,251	0.0108	2.0	30	0.51	0.10	0.11	1.64	2.88	2.96
NEX	33C	35.6	0.01	5	124	2,107	0.0110	1.9	30	0.50	0.10	0.11	1.96	3.43	3.52
NEX	109C	21.4	0.01	5	124	2,279	0.0094	1.9	30	0.48	0.10	0.11	1.13	1.97	2.02
NEX	35D	16.7	0.01	5	134	1,299	0.0130	3.0	30	0.78	0.10	0.11	1.43	2.63	2.70
NEX	37D	29.0	0.01	5	124	1,308	0.0138	2.9	30	0.75	0.10	0.11	2.39	4.38	4.49
NEX	39D	29.9	0.01	5	124	1,530	0.0105	2.8	30	0.72	0.10	0.11	2.37	4.32	4.43

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	41D	21.4	0.01	5	124	1,185	0.0107	2.6	30	0.68	0.10	0.11	1.60	2.90	2.98
NEX	43D	26.1	0.01	5	124	1,524	0.0106	2.5	30	0.63	0.10	0.11	1.81	3.25	3.34
NEX	45D	30.2	0.01	5	134	1,697	0.0084	2.3	30	0.60	0.10	0.11	1.99	3.56	3.65
NEX	47D	30.2	0.01	5	134	1,239	0.0099	2.1	30	0.54	0.10	0.11	1.79	3.17	3.25
NEX	49D	39.0	0.01	5	134	1,500	0.0087	2.0	30	0.53	0.10	0.11	2.27	4.01	4.11
NEX	51D	31.8	0.01	5	134	1,258	0.0114	2.0	30	0.51	0.10	0.11	1.78	3.13	3.21
NEX	53D	23.0	0.01	5	134	1,118	0.0076	2.0	30	0.51	0.10	0.11	1.29	2.27	2.32
NEX	55D	14.6	0.01	5	124	1,256	0.0099	1.9	30	0.50	0.10	0.11	0.80	1.40	1.44
NEX	58E	12.6	0.01	5	124	1,440	0.0115	1.9	30	0.50	0.10	0.11	0.69	1.21	1.24
NEX	60E	28.7	0.01	5	124	3,334	0.0115	1.9	30	0.48	0.10	0.11	1.52	2.65	2.71
NEX	62F	16.5	0.01	5	124	1,673	0.0210	3.6	30	0.92	0.10	0.11	1.67	3.13	3.21
NEX	64F	24.0	0.01	5	124	955	0.0200	3.5	30	0.90	0.10	0.11	2.38	4.44	4.55
NEX	66F	33.9	0.01	5	124	1,251	0.0183	3.4	30	0.87	0.10	0.11	3.24	6.04	6.19
NEX	68F	29.6	0.01	5	124	1,122	0.0174	3.3	30	0.86	0.10	0.11	2.80	5.21	5.34
NEX	70F	25.9	0.01	5	124	874	0.0146	3.3	30	0.84	0.10	0.11	2.39	4.44	4.55
NEX	72F	26.7	0.01	5	124	907	0.0150	3.2	30	0.83	0.10	0.11	2.44	4.52	4.63
NEX	74F	29.9	0.01	5	124	876	0.0140	3.2	30	0.81	0.10	0.11	2.66	4.92	5.04
NEX	76F	39.5	0.01	5	124	987	0.0160	3.0	30	0.78	0.10	0.11	3.39	6.24	6.40
NEX	78F	38.8	0.01	5	124	900	0.0130	2.9	30	0.75	0.10	0.11	3.20	5.87	6.01
NEX	80F	39.6	0.01	5	124	831	0.0143	2.8	30	0.72	0.10	0.11	3.14	5.73	5.87
NEX	82F	39.9	0.01	5	124	829	0.0121	2.7	30	0.69	0.10	0.11	3.03	5.50	5.64
NEX	84F	39.8	0.01	5	124	853	0.0117	2.6	30	0.66	0.10	0.11	2.89	5.22	5.36
NEX	86F	39.1	0.01	5	124	1,094	0.0099	2.6	30	0.66	0.10	0.11	2.84	5.13	5.26
NEX	88F	22.9	0.01	5	124	845	0.0078	2.5	30	0.63	0.10	0.11	1.59	2.86	2.93
NEX	90F	36.2	0.01	5	124	1,675	0.0088	2.3	30	0.59	0.10	0.11	2.35	4.20	4.30
NEX	92F	23.7	0.01	5	124	1,298	0.0095	2.1	30	0.54	0.10	0.11	1.41	2.49	2.55
NEX	94F	17.9	0.01	5	124	1,020	0.0084	2.0	30	0.53	0.10	0.11	1.04	1.84	1.88
NEX	96F	22.5	0.01	5	124	1,387	0.0064	2.0	30	0.51	0.10	0.11	1.26	2.21	2.27
NEX	98F	21.4	0.01	5	124	1,222	0.0099	2.0	30	0.51	0.10	0.11	1.20	2.11	2.16
NEX	100F	16.7	0.01	5	124	1,247	0.0115	1.9	30	0.50	0.10	0.11	0.92	1.61	1.65
NEX	102F	23.0	0.01	5	124	3,287	0.0111	1.9	30	0.48	0.10	0.11	1.21	2.11	2.17
NEX	104G	18.2	0.01	5	134	1,898	0.0104	1.9	30	0.50	0.10	0.11	1.00	1.75	1.80
NEX	106G	39.9	0.01	5	134	2,469	0.0090	1.9	30	0.48	0.10	0.11	2.11	3.68	3.77
Outlet 4H															
NEX	1H	19.0	0.01	5	134	1,718	0.0090	1.9	30	0.50	0.10	0.11	1.05	1.84	1.88

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	3H	39.5	0.01	5	134	1,850	0.0112	1.9	30	0.48	0.10	0.11	2.09	5.88	6.02
Outlet 63IJ															
NEX	1I	10.8	0.01	5	124	1,416	0.0169	3.4	30	0.87	0.10	0.11	1.03	1.92	1.97
NEX	3I	18.1	0.01	5	124	929	0.0163	3.3	30	0.86	0.10	0.11	1.71	3.18	3.26
NEX	5I	12.8	0.01	5	124	459	0.0169	3.3	30	0.86	0.10	0.11	1.21	2.25	2.31
NEX	7I	16.5	0.01	5	134	616	0.0136	3.3	30	0.84	0.10	0.11	1.52	2.82	2.89
NEX	9I	25.9	0.01	5	134	879	0.0149	3.3	30	0.84	0.10	0.11	2.39	4.44	4.55
NEX	11I	26.8	0.01	5	134	968	0.0127	3.2	30	0.83	0.10	0.11	2.45	4.54	4.65
NEX	13I	31.1	0.01	5	134	1,180	0.0126	3.1	30	0.80	0.10	0.11	2.74	5.05	5.18
NEX	15I	37.7	0.01	5	134	1,443	0.0129	3.0	30	0.78	0.10	0.11	3.23	5.95	6.10
NEX	17I	27.6	0.01	5	134	900	0.0119	2.9	30	0.74	0.10	0.11	2.25	4.12	4.22
NEX	19I	25.5	0.01	5	134	838	0.0125	2.8	30	0.72	0.10	0.11	2.02	3.69	3.78
NEX	21I	37.2	0.01	5	134	1,165	0.0103	2.7	30	0.69	0.10	0.11	2.82	5.13	5.25
NEX	23I	34.3	0.01	5	134	1,034	0.0107	2.6	30	0.66	0.10	0.11	2.49	4.50	4.61
NEX	25I	38.0	0.01	5	134	1,049	0.0101	2.5	30	0.63	0.10	0.11	2.63	4.73	4.85
NEX	27I	39.5	0.01	5	134	2,077	0.0093	2.2	30	0.57	0.10	0.11	2.48	4.41	4.52
NEX	29I	29.4	0.01	5	134	1,661	0.0096	2.0	30	0.53	0.10	0.11	1.71	3.02	3.10
NEX	31I	39.6	0.01	5	134	1,306	0.0098	2.0	30	0.51	0.10	0.11	2.22	3.90	4.00
NEX	33I	39.3	0.01	5	134	1,279	0.0066	2.0	30	0.51	0.10	0.11	2.20	3.87	3.96
NEX	35I	26.7	0.01	5	134	878	0.0114	1.9	30	0.50	0.10	0.11	1.47	2.57	2.64
NEX	37I	37.9	0.01	5	134	1,809	0.0076	1.9	30	0.48	0.10	0.11	2.00	3.49	3.58
NEX	39J	27.8	0.01	5	134	1,645	0.0119	3.0	30	0.78	0.10	0.11	2.39	4.39	4.50
NEX	41J	18.8	0.01	5	134	760	0.0129	2.9	30	0.75	0.10	0.11	1.55	2.84	2.91
NEX	43J	32.3	0.01	5	134	1,022	0.0128	2.9	30	0.74	0.10	0.11	2.63	4.81	4.93
NEX	45J	32.3	0.01	5	134	1,126	0.0115	2.7	30	0.71	0.10	0.11	2.52	4.59	4.71
NEX	47J	27.3	0.01	5	134	1,116	0.0106	2.6	30	0.66	0.10	0.11	1.98	3.58	3.67
NEX	49J	22.5	0.01	5	134	1,019	0.0104	2.5	30	0.63	0.10	0.11	1.56	2.81	2.88
NEX	51J	18.6	0.01	5	134	1,085	0.0098	2.2	30	0.57	0.10	0.11	1.17	2.08	2.13
NEX	53J	35.3	0.01	5	134	1,400	0.0103	2.2	30	0.57	0.10	0.11	2.21	3.93	4.03
NEX	55J	40.0	0.01	5	134	1,510	0.0079	2.1	30	0.54	0.10	0.11	2.38	4.20	4.31
NEX	57J	40.0	0.01	5	134	1,410	0.0090	2.0	30	0.51	0.10	0.11	2.24	3.94	4.04
NEX	59J	37.3	0.01	5	134	1,434	0.0091	1.9	30	0.50	0.10	0.11	2.05	3.59	3.68
NEX	61J	28.5	0.01	5	134	2,082	0.0073	1.9	30	0.48	0.10	0.11	1.50	2.62	2.69
Outlet 184KU															
NEX	1K	464.4	0.01	5	120	1,160	0.0500	4.7	16	1.61	0.48	0.48	358.90	405.84	415.99

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	3K	21.5	0.01	5	124	571	0.0305	3.7	30	0.96	0.10	0.11	2.27	4.27	4.38
NEX	5K	39.6	0.01	5	124	1,014	0.0204	3.7	30	0.95	0.10	0.11	4.14	7.78	7.97
NEX	7K	39.6	0.01	5	124	1,054	0.0183	3.6	30	0.93	0.10	0.11	4.05	7.59	7.78
NEX	9K	30.7	0.01	5	134	957	0.0161	3.5	30	0.90	0.10	0.11	3.04	5.68	5.82
NEX	11K	33.2	0.01	5	134	1,511	0.0147	3.4	30	0.89	0.10	0.11	3.25	6.07	6.22
NEX	83B	26.8	0.01	5	134	709	0.0130	3.3	30	0.84	0.10	0.11	2.48	4.60	4.71
NEX	24K	30.9	0.01	5	134	778	0.0132	3.3	30	0.84	0.10	0.11	2.86	5.30	5.43
NEX	26K	32.3	0.01	5	134	881	0.0107	3.3	30	0.84	0.10	0.11	2.98	5.53	5.67
NEX	28K	28.9	0.01	5	134	934	0.0105	3.2	30	0.83	0.10	0.11	2.64	4.89	5.01
NEX	30K	21.2	0.01	5	134	853	0.0132	3.2	30	0.81	0.10	0.11	1.89	3.49	3.58
NEX	64K	31.4	0.01	5	134	784	0.0105	3.2	30	0.83	0.10	0.11	2.87	5.31	5.45
NEX	66K	37.2	0.01	5	124	770	0.0108	3.2	30	0.81	0.10	0.11	3.31	6.12	6.27
NEX	68K	34.7	0.01	5	124	992	0.0100	3.0	30	0.78	0.10	0.11	2.98	5.48	5.62
NEX	70K	19.1	0.01	5	124	975	0.0088	2.9	30	0.75	0.10	0.11	1.58	2.89	2.96
NEX	72K	10.9	0.01	5	124	715	0.0070	2.9	30	0.74	0.10	0.11	0.89	1.63	1.67
NEX	74K	24.2	0.01	5	124	1,168	0.0128	2.8	30	0.72	0.10	0.11	1.92	3.50	3.59
NEX	106K	32.1	0.01	5	124	913	0.0110	2.7	30	0.71	0.10	0.11	2.51	4.57	4.69
NEX	108K	37.7	0.01	5	124	1,081	0.0100	2.7	30	0.69	0.10	0.11	2.86	5.20	5.33
NEX	110K	39.4	0.01	5	124	1,044	0.0124	2.6	30	0.66	0.10	0.11	2.86	5.17	5.30
NEX	112K	39.8	0.01	5	124	1,121	0.0111	2.5	30	0.63	0.10	0.11	2.76	4.96	5.09
NEX	114K	40.0	0.01	5	124	960	0.0095	2.3	30	0.60	0.10	0.11	2.64	4.72	4.84
NEX	116K	39.8	0.01	5	124	919	0.0099	2.2	30	0.57	0.10	0.11	2.50	4.44	4.55
NEX	118K	39.8	0.01	5	134	835	0.0198	2.1	30	0.54	0.10	0.11	2.36	4.18	4.28
NEX	120K	22.4	0.01	5	134	1,042	0.0077	2.0	30	0.53	0.10	0.11	1.31	2.31	2.36
NEX	15B	39.1	0.01	5	134	1,212	0.0083	2.0	30	0.53	0.10	0.11	2.28	4.02	4.12
NEX	153K	38.8	0.01	5	134	2,066	0.0097	2.0	30	0.51	0.10	0.11	2.18	3.83	3.92
NEX	155K	27.3	0.01	5	134	1,710	0.0088	1.9	30	0.50	0.10	0.11	1.50	2.63	2.70
NEX	157K	22.1	0.01	5	134	1,697	0.0087	1.9	30	0.48	0.10	0.11	1.17	2.04	2.09
NEX	6B	39.7	0.01	5	134	1,115	0.0092	1.9	30	0.48	0.10	0.11	2.10	3.66	3.75
NEX	175K	28.5	0.01	5	134	1,834	0.0081	1.9	30	0.48	0.10	0.11	1.50	2.62	2.69
NEX	13L	28.8	0.01	5	134	659	0.0212	3.9	30	0.99	0.10	0.11	3.14	5.92	6.07
NEX	15L	24.8	0.01	5	134	724	0.0209	3.8	30	0.98	0.10	0.11	2.67	5.04	5.16
NEX	17L	25.3	0.01	5	134	1,152	0.0170	3.7	30	0.96	0.10	0.11	2.67	5.02	5.15
NEX	19L	21.3	0.01	5	134	1,374	0.0164	3.6	30	0.93	0.10	0.11	2.18	4.09	4.19
NEX	21L	17.9	0.01	5	134	1,523	0.0156	3.5	30	0.90	0.10	0.11	1.77	3.31	3.39

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	32M	935.0	0.9	5	120	1,000	0.2000	4.7	8	2.23	0.57	0.87	1,813.99	1,848.66	1,894.88
NEX	34M	31.7	0.01	5	134	1,319	0.0217	3.9	30	0.99	0.10	0.11	3.45	6.51	6.67
NEX	36M	29.5	0.01	5	134	1,114	0.0194	3.7	30	0.96	0.10	0.11	3.12	5.86	6.01
NEX	38M	27.9	0.01	5	134	1,014	0.0181	3.6	30	0.93	0.10	0.11	2.85	5.35	5.48
NEX	40M	39.2	0.01	5	134	1,409	0.0155	3.6	30	0.92	0.10	0.11	3.97	7.43	7.62
NEX	68B	23.0	0.01	5	134	885	0.0208	3.5	30	0.90	0.10	0.11	2.28	4.26	4.36
NEX	53M	18.1	0.01	5	134	1,259	0.0092	3.4	30	0.87	0.10	0.11	1.73	3.22	3.30
NEX	64B	24.1	0.01	5	134	934	0.0115	3.3	30	0.86	0.10	0.11	2.28	4.24	4.35
NEX	60M	21.5	0.01	5	134	1,075	0.0132	3.3	30	0.84	0.10	0.11	1.99	3.69	3.78
NEX	42N	959.0	0.01	5	120	2,000	0.0500	4.7	25	1.31	0.41	0.41	515.06	601.09	616.12
NEX	44N	39.5	0.01	5	134	684	0.0517	3.9	30	0.99	0.10	0.11	4.30	8.11	8.32
NEX	46N	38.9	0.01	5	134	702	0.0282	3.8	30	0.98	0.10	0.11	4.19	7.90	8.10
NEX	48N	37.9	0.01	5	134	938	0.0231	3.7	30	0.96	0.10	0.11	4.00	7.53	7.71
NEX	50N	32.3	0.01	5	134	1,933	0.0092	3.6	30	0.93	0.10	0.11	3.30	6.19	6.35
NEX	55O	35.7	0.01	5	134	2,369	0.0122	3.6	30	0.93	0.10	0.11	3.65	6.84	7.02
NEX	57O	19.0	0.01	5	134	1,288	0.0125	3.6	30	0.92	0.10	0.11	1.92	3.60	3.69
NEX	76P	199.8	0.01	5	120	640	0.0500	4.7	10	2.01	0.55	0.55	220.92	243.63	249.72
NEX	78P	26.5	0.01	5	124	1,220	0.0087	3.9	30	0.99	0.10	0.11	2.89	5.45	5.58
NEX	80P	39.7	0.01	5	134	2,419	0.0185	3.7	30	0.96	0.10	0.11	4.19	7.88	8.08
NEX	57B	40.0	0.01	5	134	949	0.0200	3.6	30	0.93	0.10	0.11	4.09	7.67	7.86
NEX	87P	40.0	0.01	5	134	856	0.0115	3.7	30	0.96	0.10	0.11	4.22	7.94	8.14
NEX	89P	40.0	0.01	5	134	1,066	0.0130	3.4	30	0.89	0.10	0.11	3.92	7.31	7.49
NEX	91P	40.0	0.01	5	134	1,323	0.0100	3.4	30	0.87	0.10	0.11	3.83	7.13	7.31
NEX	93P	38.5	0.01	5	134	1,231	0.0098	3.3	30	0.84	0.10	0.11	3.56	6.60	6.77
NEX	95P	32.9	0.01	5	124	853	0.0100	3.2	30	0.83	0.10	0.11	3.00	5.56	5.70
NEX	97P	32.3	0.01	5	124	903	0.0083	3.1	30	0.80	0.10	0.11	2.84	5.24	5.38
NEX	99P	36.0	0.01	5	124	1,173	0.0077	3.0	30	0.77	0.10	0.11	3.05	5.61	5.75
NEX	101P	22.9	0.01	5	124	832	0.0121	2.9	30	0.75	0.10	0.11	1.89	3.46	3.55
NEX	103P	12.6	0.01	5	124	949	0.0105	2.8	30	0.72	0.10	0.11	1.00	1.82	1.87
NEX	82Q	40.0	0.01	5	134	1,582	0.0272	3.9	30	0.99	0.10	0.11	4.36	8.22	8.43
NEX	84Q	40.0	0.01	5	134	1,847	0.0211	3.7	30	0.96	0.10	0.11	4.22	7.94	8.14
NEX	122R	21.6	0.01	5	134	1,940	0.0123	3.2	30	0.81	0.10	0.11	1.92	3.55	3.64
NEX	124R	32.5	0.01	5	134	1,189	0.0132	3.1	30	0.80	0.10	0.11	2.86	5.28	5.41
NEX	126R	23.9	0.01	5	134	803	0.0128	3.0	30	0.78	0.10	0.11	2.05	3.77	3.87
NEX	128R	28.8	0.01	5	134	966	0.0104	3.1	30	0.80	0.10	0.11	2.53	4.67	4.79

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	130R	29.3	0.01	5	134	795	0.0096	2.9	30	0.75	0.10	0.11	2.42	4.43	4.54
NEX	132R	27.5	0.01	5	134	759	0.0105	2.9	30	0.74	0.10	0.11	2.24	4.10	4.20
NEX	134R	27.3	0.01	5	134	740	0.0098	2.8	30	0.72	0.10	0.11	2.16	3.94	4.04
NEX	136R	29.4	0.01	5	134	849	0.0100	2.7	30	0.71	0.10	0.11	2.30	4.19	4.29
NEX	138R	36.9	0.01	5	134	960	0.0102	2.7	30	0.69	0.10	0.11	2.80	5.09	5.21
NEX	140R	27.6	0.01	5	134	705	0.0125	2.6	30	0.66	0.10	0.11	2.00	3.62	3.71
NEX	142R	36.0	0.01	5	134	966	0.0104	2.5	30	0.63	0.10	0.11	2.49	4.48	4.60
NEX	144R	39.6	0.01	5	134	1,078	0.0094	2.3	30	0.59	0.10	0.11	2.57	4.59	4.70
NEX	146R	27.4	0.01	5	134	693	0.0144	2.1	30	0.54	0.10	0.11	1.63	2.88	2.95
NEX	148R	27.6	0.01	5	134	1,266	0.0097	2.1	30	0.54	0.10	0.11	1.64	2.90	2.97
NEX	150R	20.7	0.01	5	134	1,379	0.0096	2.0	30	0.53	0.10	0.11	1.21	2.13	2.18
NEX	17B	39.1	0.01	5	134	1,212	0.0083	2.0	30	0.51	0.10	0.11	2.19	3.85	3.95
NEX	159S	39.3	0.01	5	134	2,302	0.0110	1.9	30	0.50	0.10	0.11	2.16	3.79	3.88
NEX	161S	36.7	0.01	5	134	2,012	0.0121	1.9	30	0.48	0.10	0.11	1.94	3.38	3.47
NEX	163T	16.1	0.01	5	134	1,839	0.0088	2.0	30	0.51	0.10	0.11	0.90	1.58	1.62
NEX	165T	28.5	0.01	5	134	887	0.0119	2.0	30	0.51	0.10	0.11	1.60	2.81	2.88
NEX	167T	38.0	0.01	5	134	1,078	0.0088	1.9	30	0.48	0.10	0.11	2.01	3.50	3.59
NEX	169T	39.8	0.01	5	134	1,337	0.0120	1.9	30	0.48	0.10	0.11	2.10	3.66	3.75
NEX	171T	29.2	0.01	5	134	1,813	0.0098	1.9	30	0.48	0.10	0.11	1.54	2.69	2.75
NEX	177U	29.4	0.01	5	134	3,079	0.0082	1.9	30	0.48	0.10	0.11	1.55	2.70	2.77
NEX	178U	29.1	0.01	5	134	2,590	0.0098	1.9	30	0.48	0.10	0.11	1.54	2.68	2.75
NEX	180U	31.8	0.01	5	134	2,207	0.0112	1.9	30	0.48	0.10	0.11	1.68	2.93	3.00
NEX	182U	21.3	0.01	5	134	2,448	0.0081	1.9	30	0.48	0.10	0.11	1.12	1.96	2.01
Outlet 8V															
NEX	1V	23.8	0.01	5	134	1,412	0.0103	1.9	30	0.48	0.10	0.11	1.26	2.19	2.25
NEX	3V	39.4	0.01	5	134	1,046	0.0115	1.9	30	0.48	0.10	0.11	2.08	3.63	3.72
NEX	5V	39.9	0.01	5	134	892	0.0100	1.9	30	0.48	0.10	0.11	2.11	3.68	3.77
NEX	7V	40.0	0.01	5	134	964	0.0100	1.9	30	0.48	0.10	0.11	2.11	3.68	3.77
Outlet 73WZ															
NEX	1W	24.1	0.01	5	124	1,848	0.0105	3.0	30	0.78	0.10	0.11	2.07	3.81	3.90
NEX	3W	22.3	0.01	5	124	1,007	0.0107	2.9	30	0.75	0.10	0.11	1.84	3.37	3.46
NEX	5W	26.9	0.01	5	124	1,111	0.0099	2.8	30	0.72	0.10	0.11	2.13	3.89	3.99
NEX	7W	24.7	0.01	5	124	1,118	0.0071	2.7	30	0.69	0.10	0.11	1.87	3.40	3.49
NEX	9W	35.1	0.01	5	124	1,301	0.0100	2.6	30	0.66	0.10	0.11	2.55	4.61	4.72
NEX	11W	24.8	0.01	5	124	779	0.0075	2.5	30	0.65	0.10	0.11	1.77	3.20	3.28

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	13W	36.2	0.01	5	124	915	0.0114	2.5	30	0.63	0.10	0.11	2.51	4.51	4.63
NEX	15W	33.0	0.01	5	124	796	0.0139	2.3	30	0.60	0.10	0.11	2.18	3.90	4.00
NEX	17W	39.5	0.01	5	124	930	0.0120	2.2	30	0.57	0.10	0.11	2.48	4.41	4.52
NEX	19W	32.8	0.01	5	124	774	0.0094	2.1	30	0.54	0.10	0.11	1.95	3.45	3.53
NEX	21W	35.4	0.01	5	124	1,066	0.0082	2.1	30	0.54	0.10	0.11	2.10	3.71	3.81
NEX	23W	19.1	0.01	5	134	860	0.0063	2.0	30	0.53	0.10	0.11	1.11	1.96	2.01
NEX	25W	11.4	0.01	5	134	684	0.0073	2.0	30	0.53	0.10	0.11	0.66	1.17	1.20
NEX	27W	22.7	0.01	5	134	1,949	0.0103	2.0	30	0.51	0.10	0.11	1.27	2.23	2.29
NEX	4B	15.1	0.01	5	134	642	0.0098	2.0	30	0.51	0.10	0.11	0.85	1.49	1.53
NEX	38W	19.2	0.01	5	134	1,430	0.0096	1.9	30	0.50	0.10	0.11	1.06	1.85	1.90
NEX	2B	27.6	0.01	5	134	1,623	0.0080	1.9	30	0.48	0.10	0.11	1.46	2.54	2.61
NEX	29X	7.3	0.01	5	124	1,088	0.0076	2.1	30	0.54	0.10	0.11	0.43	0.76	0.78
NEX	31X	23.1	0.01	5	124	882	0.0135	2.0	30	0.53	0.10	0.11	1.35	2.38	2.44
NEX	33X	13.0	0.01	5	124	429	0.0129	2.0	30	0.51	0.10	0.11	0.73	1.28	1.31
NEX	35X	18.5	0.01	5	134	1,115	0.0128	2.0	30	0.51	0.10	0.11	1.04	1.82	1.87
NEX	40Y	6.4	0.01	5	124	970	0.0089	2.1	30	0.54	0.10	0.11	0.38	0.67	0.69
NEX	42Y	11.2	0.01	5	124	831	0.0114	2.1	30	0.54	0.10	0.11	0.67	1.18	1.21
NEX	44Y	15.6	0.01	5	124	883	0.0107	2.0	30	0.53	0.10	0.11	0.91	1.60	1.64
NEX	46Y	9.5	0.01	5	124	390	0.0168	2.0	30	0.51	0.10	0.11	0.53	0.93	0.96
NEX	48Y	13.1	0.01	5	134	658	0.0167	1.9	30	0.50	0.10	0.11	0.72	1.26	1.29
NEX	50Y	24.4	0.01	5	134	1,416	0.0105	1.9	30	0.50	0.10	0.11	1.34	2.35	2.41
NEX	53Z	12.8	0.01	5	124	1,273	0.0132	2.3	30	0.60	0.10	0.11	0.84	1.51	1.54
NEX	55Z	24.9	0.01	5	124	1,086	0.0117	2.3	30	0.59	0.10	0.11	1.62	2.89	2.96
NEX	57Z	25.8	0.01	5	124	863	0.0135	2.2	30	0.56	0.10	0.11	1.59	2.82	2.89
NEX	59Z	30.1	0.01	5	124	922	0.0123	2.1	30	0.54	0.10	0.11	1.79	3.16	3.24
NEX	61Z	28.0	0.01	5	124	907	0.0102	2.0	30	0.53	0.10	0.11	1.63	2.88	2.95
NEX	63Z	32.7	0.01	5	124	1,048	0.0113	2.0	30	0.53	0.10	0.11	1.91	3.37	3.45
NEX	65Z	25.7	0.01	5	134	1,003	0.0124	2.0	30	0.51	0.10	0.11	1.44	2.53	2.59
NEX	67Z	9.1	0.01	5	134	399	0.0147	2.0	30	0.51	0.10	0.11	0.51	0.90	0.92
NEX	69Z	24.4	0.01	5	134	1,072	0.0128	1.9	30	0.50	0.10	0.11	1.34	2.35	2.41
NEX	71Z	27.0	0.01	5	134	1,351	0.0092	1.9	30	0.48	0.10	0.11	1.43	2.49	2.55
Outlet 110A															
NEX	101A	8.2	0.01	5	124	1,080	0.0117	2.3	30	0.60	0.10	0.11	0.54	0.97	0.99
NEX	103A	17.4	0.01	5	124	846	0.0126	2.2	30	0.57	0.10	0.11	1.09	1.94	1.99
NEX	105A	18.4	0.01	5	124	782	0.0142	2.2	30	0.56	0.10	0.11	1.13	2.01	2.06

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	107A	24.3	0.01	5	120	822	0.0118	2.1	30	0.54	0.10	0.11	1.44	2.55	2.61
NEX	109A	21.0	0.01	5	120	717	0.0102	2.1	30	0.54	0.10	0.11	1.25	2.21	2.26
Outlet 165B															
NEX	13B	30.0	0.01	5	124	1,041	0.0084	3.3	30	0.84	0.10	0.11	2.77	5.14	5.27
NEX	14B	22.1	0.01	5	134	2,097	0.0097	3.3	30	0.86	0.10	0.11	2.09	3.89	3.98
NEX	20B	38.7	0.01	5	124	1,100	0.0114	3.4	30	0.87	0.10	0.11	3.70	6.89	7.06
NEX	21B	11.2	0.01	5	134	976	0.0116	3.4	30	0.87	0.10	0.11	1.07	1.99	2.04
NEX	28B	24.5	0.01	5	134	1,210	0.0123	3.6	30	0.93	0.10	0.11	2.51	4.70	4.82
NEX	29B	7.6	0.01	5	124	918	0.0157	3.6	30	0.93	0.10	0.11	0.78	1.46	1.50
NEX	35B	15.5	0.01	5	124	1,532	0.0248	3.8	30	0.98	0.10	0.11	1.67	3.15	3.23
NEX	36B	29.0	0.01	5	124	1,706	0.0265	3.9	30	0.99	0.10	0.11	3.16	5.96	6.11
NEX	100B	67.1	0.01	5	120	240	0.0500	4.7	5	2.79	0.63	0.63	117.92	127.11	130.29
NEX	102B	26.0	0.01	5	124	1,058	0.0457	4.0	30	1.02	0.10	0.11	2.92	5.52	5.66
NEX	104B	24.8	0.01	5	124	1,470	0.0295	3.9	30	0.99	0.10	0.11	2.70	5.09	5.22
NEX	106B	18.1	0.01	5	124	959	0.0182	3.7	30	0.96	0.10	0.11	1.91	3.59	3.68
NEX	118B	34.1	0.01	5	124	944	0.0135	3.5	30	0.90	0.10	0.11	3.38	6.31	6.47
NEX	142B	27.0	0.01	5	124	872	0.0100	3.2	30	0.83	0.10	0.11	2.47	4.57	4.69
NEX	144B	24.7	0.01	5	124	1,127	0.0100	3.1	30	0.80	0.10	0.11	2.17	4.01	4.11
NEX	146B	26.0	0.01	5	124	1,083	0.0087	3.0	30	0.77	0.10	0.11	2.20	4.05	4.15
NEX	148B	22.6	0.01	5	124	872	0.0064	2.9	30	0.74	0.10	0.11	1.84	3.37	3.45
NEX	150B	28.5	0.01	5	124	1,358	0.0100	2.7	30	0.69	0.10	0.11	2.16	3.93	4.03
NEX	152B	23.4	0.01	5	124	1,217	0.0094	2.6	30	0.66	0.10	0.11	1.70	3.07	3.15
NEX	154B	20.9	0.01	5	124	807	0.0117	2.5	30	0.63	0.10	0.11	1.45	2.61	2.67
NEX	156B	26.1	0.01	5	124	966	0.0109	2.4	30	0.62	0.10	0.11	1.78	3.20	3.28
NEX	158B	26.4	0.01	5	124	973	0.0103	2.3	30	0.60	0.10	0.11	1.74	3.11	3.19
NEX	160B	29.7	0.01	5	124	1,044	0.0088	2.3	30	0.59	0.10	0.11	1.93	3.44	3.53
NEX	162B	27.9	0.01	5	124	1,101	0.0100	2.2	30	0.57	0.10	0.11	1.75	3.11	3.19
NEX	164B	25.2	0.01	5	124	1,034	0.0097	2.2	30	0.57	0.10	0.11	1.58	2.81	2.88
NEX	108C	959.0	0.01	5	120	2,000	0.0500	4.7	25	1.31	0.41	0.41	515.06	601.09	616.12
NEX	110C	39.7	0.01	5	124	1,568	0.0397	3.9	30	1.01	0.10	0.11	4.41	8.34	8.55
NEX	115C	12.0	0.01	5	124	949	0.0196	3.7	30	0.96	0.10	0.11	1.27	2.39	2.45
NEX	112D	37.7	0.01	5	124	2,150	0.0278	3.9	30	1.01	0.10	0.11	4.19	7.92	8.12
NEX	120E	31.1	0.01	5	124	2,049	0.0310	3.9	30	0.99	0.10	0.11	3.39	6.39	6.55
NEX	122E	18.9	0.01	5	124	866	0.0304	3.8	30	0.98	0.10	0.11	2.04	3.84	3.94
NEX	124E	37.4	0.01	5	134	1,753	0.0175	3.7	30	0.95	0.10	0.11	3.91	7.34	7.53

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	126E	21.3	0.01	5	134	919	0.0177	3.6	30	0.92	0.10	0.11	2.16	4.04	4.14
NEX	128E	16.6	0.01	5	134	904	0.0144	3.5	30	0.90	0.10	0.11	1.64	3.07	3.14
NEX	131F	13.6	0.01	5	134	906	0.0318	3.8	30	0.98	0.10	0.11	1.47	2.77	2.84
NEX	133F	26.1	0.01	5	134	1,224	0.0214	3.7	30	0.96	0.10	0.11	2.76	5.19	5.32
NEX	135F	37.2	0.01	5	134	1,787	0.0163	3.6	30	0.93	0.10	0.11	3.81	7.14	7.32
NEX	137F	24.5	0.01	5	134	979	0.0194	3.5	30	0.90	0.10	0.11	2.43	4.54	4.65
NEX	139F	14.3	0.01	5	134	790	0.0144	3.4	30	0.89	0.10	0.11	1.40	2.61	2.68

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	10	124	2,398	0.0092	3.0	30	0.77	0.10	0.11	3.39	6.23	6.39
NEX	3A	39.8	0.01	10	124	1,498	0.0097	2.7	30	0.70	0.10	0.11	3.06	5.57	5.71
NEX	5A	38.3	0.01	10	124	1,253	0.0091	2.6	30	0.66	0.10	0.11	2.78	5.03	5.15
NEX	7A	32.4	0.01	10	124	1,114	0.0101	2.5	30	0.64	0.10	0.11	2.28	4.11	4.21
NEX	9A	27.7	0.01	10	124	1,242	0.0087	2.4	30	0.62	0.10	0.11	1.89	3.39	3.48
NEX	11A	33.9	0.01	10	124	1,469	0.0099	2.4	30	0.62	0.10	0.11	2.31	4.15	4.25
NEX	13A	38.9	0.01	10	134	1,177	0.0087	2.4	30	0.61	0.10	0.11	2.61	4.68	4.79
NEX	15A	38.3	0.01	10	134	994	0.0104	2.3	30	0.59	0.10	0.11	2.49	4.44	4.55
Outlet 6B															
NEX	1B	22.1	0.01	10	124	2,664	0.0093	2.4	30	0.62	0.10	0.11	1.51	2.71	2.78
NEX	3B	39.9	0.01	10	124	1,443	0.0124	2.3	30	0.59	0.10	0.11	2.59	4.62	4.74
NEX	5B	39.0	0.01	10	124	732	0.0103	2.3	30	0.59	0.10	0.11	2.53	4.52	4.63
Outlet 110CG															
NEX	1C	17.8	0.01	10	124	1,591	0.0201	4.4	30	1.14	0.10	0.11	2.23	4.27	4.38
NEX	3C	15.5	0.01	10	124	1,045	0.0180	4.3	30	1.10	0.10	0.11	1.88	3.58	3.67
NEX	5C	29.5	0.01	10	124	1,347	0.0173	4.1	30	1.06	0.10	0.11	3.44	6.53	6.70
NEX	7C	25.1	0.01	10	124	1,037	0.0175	4.1	30	1.05	0.10	0.11	2.90	5.50	5.64
NEX	9C	20.7	0.01	10	124	733	0.0164	4.0	30	1.03	0.10	0.11	2.35	4.45	4.56
NEX	11C	25.8	0.01	10	124	713	0.0162	3.9	30	1.01	0.10	0.11	2.87	5.42	5.56
NEX	13C	31.9	0.01	10	124	939	0.0156	3.9	30	1.01	0.10	0.11	3.54	6.70	6.86
NEX	15C	34.6	0.01	10	124	903	0.0126	3.9	30	0.99	0.10	0.11	3.77	7.11	7.29
NEX	17C	32.8	0.01	10	124	1,112	0.0142	3.7	30	0.95	0.10	0.11	3.43	6.44	6.60
NEX	19C	23.2	0.01	10	124	1,160	0.0121	3.6	30	0.92	0.10	0.11	2.35	4.40	4.51
NEX	21C	29.7	0.01	10	124	1,549	0.0113	3.4	30	0.86	0.10	0.11	2.81	5.23	5.36
NEX	23C	35.4	0.01	10	124	1,993	0.0106	3.0	30	0.77	0.10	0.11	3.00	5.51	5.65
NEX	25C	28.1	0.01	10	124	1,765	0.0089	2.8	30	0.72	0.10	0.11	2.23	4.07	4.17
NEX	27C	35.0	0.01	10	124	1,922	0.0082	2.6	30	0.66	0.10	0.11	2.54	4.59	4.71
NEX	29C	34.0	0.01	10	124	1,457	0.0104	2.5	30	0.64	0.10	0.11	2.39	4.31	4.42
NEX	31C	29.3	0.01	10	124	1,251	0.0108	2.4	30	0.62	0.10	0.11	2.00	3.59	3.68
NEX	33C	35.6	0.01	10	124	2,107	0.0110	2.4	30	0.61	0.10	0.11	2.39	4.28	4.39
NEX	109C	21.4	0.01	10	124	2,279	0.0094	2.3	30	0.59	0.10	0.11	1.39	2.48	2.54
NEX	35D	16.7	0.01	10	134	1,299	0.0130	3.7	30	0.95	0.10	0.11	1.75	3.28	3.37
NEX	37D	29.0	0.01	10	124	1,308	0.0138	3.6	30	0.92	0.10	0.11	2.93	5.49	5.63
NEX	39D	29.9	0.01	10	124	1,530	0.0105	3.4	30	0.88	0.10	0.11	2.89	5.39	5.53

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	41D	21.4	0.01	10	124	1,185	0.0107	3.2	30	0.83	0.10	0.11	1.95	3.62	3.71
NEX	43D	26.1	0.01	10	124	1,524	0.0106	3.0	30	0.77	0.10	0.11	2.21	4.06	4.16
NEX	45D	30.2	0.01	10	134	1,697	0.0084	2.9	30	0.73	0.10	0.11	2.43	4.44	4.55
NEX	47D	30.2	0.01	10	134	1,239	0.0099	2.6	30	0.66	0.10	0.11	2.19	3.96	4.06
NEX	49D	39.0	0.01	10	134	1,500	0.0087	2.5	30	0.64	0.10	0.11	2.75	4.95	5.07
NEX	51D	31.8	0.01	10	134	1,258	0.0114	2.4	30	0.62	0.10	0.11	2.17	3.90	3.99
NEX	53D	23.0	0.01	10	134	1,118	0.0076	2.4	30	0.62	0.10	0.11	1.57	2.82	2.89
NEX	55D	14.6	0.01	10	124	1,256	0.0099	2.4	30	0.61	0.10	0.11	0.98	1.76	1.80
NEX	58E	12.6	0.01	10	124	1,440	0.0115	2.4	30	0.61	0.10	0.11	0.85	1.52	1.56
NEX	60E	28.7	0.01	10	124	3,334	0.0115	2.3	30	0.59	0.10	0.11	1.86	3.32	3.41
NEX	62F	16.5	0.01	10	124	1,673	0.0210	4.4	30	1.12	0.10	0.11	2.03	3.88	3.98
NEX	64F	24.0	0.01	10	124	955	0.0200	4.3	30	1.10	0.10	0.11	2.90	5.53	5.67
NEX	66F	33.9	0.01	10	124	1,251	0.0183	4.1	30	1.06	0.10	0.11	3.95	7.51	7.69
NEX	68F	29.6	0.01	10	124	1,122	0.0174	4.1	30	1.05	0.10	0.11	3.42	6.49	6.65
NEX	70F	25.9	0.01	10	124	874	0.0146	4.0	30	1.03	0.10	0.11	2.93	5.55	5.69
NEX	72F	26.7	0.01	10	124	907	0.0150	3.9	30	1.01	0.10	0.11	2.97	5.61	5.75
NEX	74F	29.9	0.01	10	124	876	0.0140	3.9	30	0.99	0.10	0.11	3.26	6.15	6.30
NEX	76F	39.5	0.01	10	124	987	0.0160	3.7	30	0.95	0.10	0.11	4.13	7.76	7.95
NEX	78F	38.8	0.01	10	124	900	0.0130	3.6	30	0.92	0.10	0.11	3.93	7.36	7.54
NEX	80F	39.6	0.01	10	124	831	0.0143	3.4	30	0.88	0.10	0.11	3.83	7.14	7.32
NEX	82F	39.9	0.01	10	124	829	0.0121	3.3	30	0.84	0.10	0.11	3.69	6.84	7.01
NEX	84F	39.8	0.01	10	124	853	0.0117	3.1	30	0.81	0.10	0.11	3.55	6.56	6.72
NEX	86F	39.1	0.01	10	124	1,094	0.0099	3.1	30	0.81	0.10	0.11	3.48	6.43	6.60
NEX	88F	22.9	0.01	10	124	845	0.0078	3.0	30	0.77	0.10	0.11	1.94	3.57	3.65
NEX	90F	36.2	0.01	10	124	1,675	0.0088	2.8	30	0.72	0.10	0.11	2.87	5.24	5.37
NEX	92F	23.7	0.01	10	124	1,298	0.0095	2.6	30	0.66	0.10	0.11	1.72	3.11	3.19
NEX	94F	17.9	0.01	10	124	1,020	0.0084	2.5	30	0.64	0.10	0.11	1.26	2.27	2.33
NEX	96F	22.5	0.01	10	124	1,387	0.0064	2.4	30	0.62	0.10	0.11	1.53	2.75	2.82
NEX	98F	21.4	0.01	10	124	1,222	0.0099	2.4	30	0.62	0.10	0.11	1.46	2.62	2.69
NEX	100F	16.7	0.01	10	124	1,247	0.0115	2.4	30	0.61	0.10	0.11	1.12	2.01	2.06
NEX	102F	23.0	0.01	10	124	3,287	0.0111	2.3	30	0.59	0.10	0.11	1.49	2.66	2.73
NEX	104G	18.2	0.01	10	134	1,898	0.0104	2.4	30	0.61	0.10	0.11	1.22	2.19	2.24
NEX	106G	39.9	0.01	10	134	2,469	0.0090	2.3	30	0.59	0.10	0.11	2.59	4.62	4.74
Outlet 4H															
NEX	1H	19.0	0.01	50	134	1,718	0.0090	3.3	30	0.85	0.10	0.11	1.78	3.30	3.39

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	3H	39.5	0.01	50	134	1,850	0.0112	3.2	30	0.82	0.10	0.11	3.56	10.96	11.23
Outlet 63IJ															
NEX	1I	10.8	0.01	10	124	1,416	0.0169	4.1	30	1.06	0.10	0.11	1.26	2.39	2.45
NEX	3I	18.1	0.01	10	124	929	0.0163	4.1	30	1.05	0.10	0.11	2.09	3.97	4.07
NEX	5I	12.8	0.01	10	124	459	0.0169	4.1	30	1.05	0.10	0.11	1.48	2.81	2.88
NEX	7I	16.5	0.01	10	134	616	0.0136	4.0	30	1.03	0.10	0.11	1.87	3.54	3.63
NEX	9I	25.9	0.01	10	134	879	0.0149	4.0	30	1.03	0.10	0.11	2.93	5.55	5.69
NEX	11I	26.8	0.01	10	134	968	0.0127	3.9	30	1.01	0.10	0.11	2.98	5.63	5.77
NEX	13I	31.1	0.01	10	134	1,180	0.0126	3.8	30	0.97	0.10	0.11	3.32	6.25	6.41
NEX	15I	37.7	0.01	10	134	1,443	0.0129	3.7	30	0.95	0.10	0.11	3.94	7.40	7.59
NEX	17I	27.6	0.01	10	134	900	0.0119	3.5	30	0.90	0.10	0.11	2.73	5.10	5.23
NEX	19I	25.5	0.01	10	134	838	0.0125	3.4	30	0.88	0.10	0.11	2.47	4.60	4.72
NEX	21I	37.2	0.01	10	134	1,165	0.0103	3.3	30	0.84	0.10	0.11	3.44	6.38	6.54
NEX	23I	34.3	0.01	10	134	1,034	0.0107	3.1	30	0.81	0.10	0.11	3.06	5.65	5.79
NEX	25I	38.0	0.01	10	134	1,049	0.0101	3.0	30	0.77	0.10	0.11	3.22	5.92	6.07
NEX	27I	39.5	0.01	10	134	2,077	0.0093	2.7	30	0.70	0.10	0.11	3.04	5.53	5.67
NEX	29I	29.4	0.01	10	134	1,661	0.0096	2.5	30	0.64	0.10	0.11	2.07	3.73	3.82
NEX	31I	39.6	0.01	10	134	1,306	0.0098	2.4	30	0.62	0.10	0.11	2.70	4.85	4.97
NEX	33I	39.3	0.01	10	134	1,279	0.0066	2.4	30	0.62	0.10	0.11	2.68	4.81	4.93
NEX	35I	26.7	0.01	10	134	878	0.0114	2.4	30	0.61	0.10	0.11	1.79	3.21	3.29
NEX	37I	37.9	0.01	10	134	1,809	0.0076	2.3	30	0.59	0.10	0.11	2.46	4.39	4.50
NEX	39J	27.8	0.01	10	134	1,645	0.0119	3.7	30	0.95	0.10	0.11	2.91	5.46	5.60
NEX	41J	18.8	0.01	10	134	760	0.0129	3.6	30	0.92	0.10	0.11	1.90	3.56	3.65
NEX	43J	32.3	0.01	10	134	1,022	0.0128	3.5	30	0.90	0.10	0.11	3.20	5.98	6.13
NEX	45J	32.3	0.01	10	134	1,126	0.0115	3.4	30	0.86	0.10	0.11	3.06	5.69	5.83
NEX	47J	27.3	0.01	10	134	1,116	0.0106	3.1	30	0.81	0.10	0.11	2.43	4.49	4.61
NEX	49J	22.5	0.01	10	134	1,019	0.0104	3.0	30	0.77	0.10	0.11	1.91	3.51	3.59
NEX	51J	18.6	0.01	10	134	1,085	0.0098	2.7	30	0.70	0.10	0.11	1.43	2.60	2.67
NEX	53J	35.3	0.01	10	134	1,400	0.0103	2.7	30	0.70	0.10	0.11	2.72	4.95	5.07
NEX	55J	40.0	0.01	10	134	1,510	0.0079	2.6	30	0.66	0.10	0.11	2.90	5.25	5.38
NEX	57J	40.0	0.01	10	134	1,410	0.0090	2.4	30	0.62	0.10	0.11	2.73	4.90	5.02
NEX	59J	37.3	0.01	10	134	1,434	0.0091	2.4	30	0.61	0.10	0.11	2.50	4.48	4.60
NEX	61J	28.5	0.01	10	134	2,082	0.0073	2.3	30	0.59	0.10	0.11	1.85	3.30	3.39
Outlet 184KU															
NEX	1K	464.4	0.01	10	120	1,160	0.0500	5.7	12	2.26	0.58	0.58	608.75	665.26	681.89

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	3K	21.5	0.01	10	124	571	0.0305	4.6	30	1.17	0.10	0.11	2.77	5.31	5.44
NEX	5K	39.6	0.01	10	124	1,014	0.0204	4.5	30	1.16	0.10	0.11	5.05	9.68	9.92
NEX	7K	39.6	0.01	10	124	1,054	0.0183	4.4	30	1.14	0.10	0.11	4.97	9.50	9.74
NEX	9K	30.7	0.01	10	134	957	0.0161	4.3	30	1.10	0.10	0.11	3.71	7.08	7.26
NEX	11K	33.2	0.01	10	134	1,511	0.0147	4.2	30	1.08	0.10	0.11	3.94	7.50	7.69
NEX	83B	26.8	0.01	10	134	709	0.0130	4.0	30	1.03	0.10	0.11	3.04	5.75	5.90
NEX	24K	30.9	0.01	10	134	778	0.0132	4.0	30	1.03	0.10	0.11	3.50	6.63	6.80
NEX	26K	32.3	0.01	10	134	881	0.0107	4.0	30	1.03	0.10	0.11	3.66	6.93	7.11
NEX	28K	28.9	0.01	10	134	934	0.0105	3.9	30	1.01	0.10	0.11	3.21	6.07	6.22
NEX	30K	21.2	0.01	10	134	853	0.0132	3.9	30	0.99	0.10	0.11	2.31	4.36	4.47
NEX	64K	31.4	0.01	10	134	784	0.0105	3.9	30	1.01	0.10	0.11	3.49	6.60	6.76
NEX	66K	37.2	0.01	10	124	770	0.0108	3.9	30	0.99	0.10	0.11	4.05	7.64	7.83
NEX	68K	34.7	0.01	10	124	992	0.0100	3.7	30	0.95	0.10	0.11	3.63	6.82	6.99
NEX	70K	19.1	0.01	10	124	975	0.0088	3.6	30	0.92	0.10	0.11	1.93	3.62	3.71
NEX	72K	10.9	0.01	10	124	715	0.0070	3.5	30	0.90	0.10	0.11	1.08	2.02	2.07
NEX	74K	24.2	0.01	10	124	1,168	0.0128	3.4	30	0.88	0.10	0.11	2.34	4.36	4.47
NEX	106K	32.1	0.01	10	124	913	0.0110	3.4	30	0.86	0.10	0.11	3.04	5.65	5.79
NEX	108K	37.7	0.01	10	124	1,081	0.0100	3.3	30	0.84	0.10	0.11	3.48	6.46	6.62
NEX	110K	39.4	0.01	10	124	1,044	0.0124	3.1	30	0.81	0.10	0.11	3.51	6.49	6.65
NEX	112K	39.8	0.01	10	124	1,121	0.0111	3.0	30	0.77	0.10	0.11	3.37	6.20	6.35
NEX	114K	40.0	0.01	10	124	960	0.0095	2.9	30	0.73	0.10	0.11	3.21	5.87	6.02
NEX	116K	39.8	0.01	10	124	919	0.0099	2.7	30	0.70	0.10	0.11	3.06	5.57	5.71
NEX	118K	39.8	0.01	10	134	835	0.0198	2.6	30	0.66	0.10	0.11	2.89	5.22	5.36
NEX	120K	22.4	0.01	10	134	1,042	0.0077	2.5	30	0.64	0.10	0.11	1.58	2.84	2.92
NEX	15B	39.1	0.01	10	134	1,212	0.0083	2.5	30	0.64	0.10	0.11	2.75	4.96	5.08
NEX	153K	38.8	0.01	10	134	2,066	0.0097	2.4	30	0.62	0.10	0.11	2.65	4.75	4.87
NEX	155K	27.3	0.01	10	134	1,710	0.0088	2.4	30	0.61	0.10	0.11	1.83	3.28	3.36
NEX	157K	22.1	0.01	10	134	1,697	0.0087	2.3	30	0.59	0.10	0.11	1.43	2.56	2.62
NEX	6B	39.7	0.01	10	134	1,115	0.0092	2.3	30	0.59	0.10	0.11	2.58	4.60	4.72
NEX	175K	28.5	0.01	10	134	1,834	0.0081	2.3	30	0.59	0.10	0.11	1.85	3.30	3.39
NEX	13L	28.8	0.01	10	134	659	0.0212	4.7	30	1.21	0.10	0.11	3.83	7.37	7.56
NEX	15L	24.8	0.01	10	134	724	0.0209	4.6	30	1.19	0.10	0.11	3.25	6.24	6.40
NEX	17L	25.3	0.01	10	134	1,152	0.0170	4.6	30	1.17	0.10	0.11	3.26	6.25	6.41
NEX	19L	21.3	0.01	10	134	1,374	0.0164	4.4	30	1.14	0.10	0.11	2.67	5.11	5.24
NEX	21L	17.9	0.01	10	134	1,523	0.0156	4.3	30	1.10	0.10	0.11	2.17	4.13	4.24

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	32M	935.0	0.9	10	120	1,000	0.2000	5.7	7	2.91	0.64	0.87	2,367.14	2,414.39	2,474.75
NEX	34M	31.7	0.01	10	134	1,319	0.0217	4.7	30	1.21	0.10	0.11	4.22	8.12	8.32
NEX	36M	29.5	0.01	10	134	1,114	0.0194	4.6	30	1.17	0.10	0.11	3.80	7.29	7.47
NEX	38M	27.9	0.01	10	134	1,014	0.0181	4.4	30	1.14	0.10	0.11	3.50	6.70	6.86
NEX	40M	39.2	0.01	10	134	1,409	0.0155	4.4	30	1.12	0.10	0.11	4.83	9.22	9.46
NEX	68B	23.0	0.01	10	134	885	0.0208	4.3	30	1.10	0.10	0.11	2.78	5.30	5.44
NEX	53M	18.1	0.01	10	134	1,259	0.0092	4.1	30	1.06	0.10	0.11	2.11	4.01	4.11
NEX	64B	24.1	0.01	10	134	934	0.0115	4.1	30	1.05	0.10	0.11	2.78	5.28	5.41
NEX	60M	21.5	0.01	10	134	1,075	0.0132	4.0	30	1.03	0.10	0.11	2.44	4.62	4.73
NEX	42N	959.0	0.01	10	120	2,000	0.0500	5.7	19	1.82	0.51	0.51	890.11	995.69	1,020.58
NEX	44N	39.5	0.01	10	134	684	0.0517	4.7	25	1.32	0.14	0.15	7.82	12.97	13.30
NEX	46N	38.9	0.01	10	134	702	0.0282	4.6	30	1.19	0.10	0.11	5.09	9.78	10.03
NEX	48N	37.9	0.01	10	134	938	0.0231	4.6	30	1.17	0.10	0.11	4.88	9.36	9.59
NEX	50N	32.3	0.01	10	134	1,933	0.0092	4.4	30	1.14	0.10	0.11	4.05	7.75	7.94
NEX	55O	35.7	0.01	10	134	2,369	0.0122	4.4	30	1.14	0.10	0.11	4.48	8.57	8.78
NEX	57O	19.0	0.01	10	134	1,288	0.0125	4.4	30	1.12	0.10	0.11	2.34	4.47	4.58
NEX	76P	199.8	0.01	10	120	640	0.0500	5.7	8	2.73	0.62	0.62	338.25	365.66	374.80
NEX	78P	26.5	0.01	10	124	1,220	0.0087	4.7	30	1.21	0.10	0.11	3.53	6.79	6.96
NEX	80P	39.7	0.01	10	134	2,419	0.0185	4.6	30	1.17	0.10	0.11	5.11	9.80	10.05
NEX	57B	40.0	0.01	10	134	949	0.0200	4.4	30	1.14	0.10	0.11	5.02	9.60	9.84
NEX	87P	40.0	0.01	10	134	856	0.0115	4.6	30	1.17	0.10	0.11	5.15	9.88	10.12
NEX	89P	40.0	0.01	10	134	1,066	0.0130	4.2	30	1.08	0.10	0.11	4.75	9.04	9.27
NEX	91P	40.0	0.01	10	134	1,323	0.0100	4.1	30	1.06	0.10	0.11	4.66	8.86	9.08
NEX	93P	38.5	0.01	10	134	1,231	0.0098	4.0	30	1.03	0.10	0.11	4.36	8.26	8.47
NEX	95P	32.9	0.01	10	124	853	0.0100	3.9	30	1.01	0.10	0.11	3.66	6.91	7.09
NEX	97P	32.3	0.01	10	124	903	0.0083	3.8	30	0.97	0.10	0.11	3.45	6.49	6.65
NEX	99P	36.0	0.01	10	124	1,173	0.0077	3.6	30	0.94	0.10	0.11	3.72	6.98	7.16
NEX	101P	22.9	0.01	10	124	832	0.0121	3.6	30	0.92	0.10	0.11	2.32	4.34	4.45
NEX	103P	12.6	0.01	10	124	949	0.0105	3.4	30	0.88	0.10	0.11	1.22	2.27	2.33
NEX	82Q	40.0	0.01	10	134	1,582	0.0272	4.7	30	1.21	0.10	0.11	5.32	10.24	10.50
NEX	84Q	40.0	0.01	10	134	1,847	0.0211	4.6	30	1.17	0.10	0.11	5.15	9.88	10.12
NEX	122R	21.6	0.01	10	134	1,940	0.0123	3.9	30	0.99	0.10	0.11	2.35	4.44	4.55
NEX	124R	32.5	0.01	10	134	1,189	0.0132	3.8	30	0.97	0.10	0.11	3.47	6.53	6.69
NEX	126R	23.9	0.01	10	134	803	0.0128	3.7	30	0.95	0.10	0.11	2.50	4.69	4.81
NEX	128R	28.8	0.01	10	134	966	0.0104	3.8	30	0.97	0.10	0.11	3.07	5.78	5.93

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	130R	29.3	0.01	10	134	795	0.0096	3.6	30	0.92	0.10	0.11	2.97	5.56	5.70
NEX	132R	27.5	0.01	10	134	759	0.0105	3.5	30	0.90	0.10	0.11	2.72	5.08	5.21
NEX	134R	27.3	0.01	10	134	740	0.0098	3.4	30	0.88	0.10	0.11	2.64	4.92	5.05
NEX	136R	29.4	0.01	10	134	849	0.0100	3.4	30	0.86	0.10	0.11	2.78	5.17	5.30
NEX	138R	36.9	0.01	10	134	960	0.0102	3.3	30	0.84	0.10	0.11	3.41	6.33	6.48
NEX	140R	27.6	0.01	10	134	705	0.0125	3.1	30	0.81	0.10	0.11	2.46	4.55	4.66
NEX	142R	36.0	0.01	10	134	966	0.0104	3.0	30	0.77	0.10	0.11	3.05	5.61	5.75
NEX	144R	39.6	0.01	10	134	1,078	0.0094	2.8	30	0.72	0.10	0.11	3.14	5.73	5.87
NEX	146R	27.4	0.01	10	134	693	0.0144	2.6	30	0.66	0.10	0.11	1.99	3.60	3.69
NEX	148R	27.6	0.01	10	134	1,266	0.0097	2.6	30	0.66	0.10	0.11	2.00	3.62	3.71
NEX	150R	20.7	0.01	10	134	1,379	0.0096	2.5	30	0.64	0.10	0.11	1.46	2.63	2.69
NEX	17B	39.1	0.01	10	134	1,212	0.0083	2.4	30	0.62	0.10	0.11	2.67	4.79	4.91
NEX	159S	39.3	0.01	10	134	2,302	0.0110	2.4	30	0.61	0.10	0.11	2.64	4.73	4.85
NEX	161S	36.7	0.01	10	134	2,012	0.0121	2.3	30	0.59	0.10	0.11	2.38	4.25	4.36
NEX	163T	16.1	0.01	10	134	1,839	0.0088	2.4	30	0.62	0.10	0.11	1.10	1.97	2.02
NEX	165T	28.5	0.01	10	134	887	0.0119	2.4	30	0.62	0.10	0.11	1.94	3.49	3.57
NEX	167T	38.0	0.01	10	134	1,078	0.0088	2.3	30	0.59	0.10	0.11	2.47	4.41	4.52
NEX	169T	39.8	0.01	10	134	1,337	0.0120	2.3	30	0.59	0.10	0.11	2.58	4.61	4.72
NEX	171T	29.2	0.01	10	134	1,813	0.0098	2.3	30	0.59	0.10	0.11	1.90	3.39	3.47
NEX	177U	29.4	0.01	10	134	3,079	0.0082	2.3	30	0.59	0.10	0.11	1.91	3.41	3.49
NEX	178U	29.1	0.01	10	134	2,590	0.0098	2.3	30	0.59	0.10	0.11	1.89	3.37	3.46
NEX	180U	31.8	0.01	10	134	2,207	0.0112	2.3	30	0.59	0.10	0.11	2.06	3.68	3.77
NEX	182U	21.3	0.01	10	134	2,448	0.0081	2.3	30	0.59	0.10	0.11	1.38	2.47	2.53
Outlet 8V															
NEX	1V	23.8	0.01	10	134	1,412	0.0103	2.3	30	0.59	0.10	0.11	1.54	2.75	2.82
NEX	3V	39.4	0.01	10	134	1,046	0.0115	2.3	30	0.59	0.10	0.11	2.56	4.57	4.68
NEX	5V	39.9	0.01	10	134	892	0.0100	2.3	30	0.59	0.10	0.11	2.59	4.62	4.74
NEX	7V	40.0	0.01	10	134	964	0.0100	2.3	30	0.59	0.10	0.11	2.60	4.64	4.75
Outlet 73WZ															
NEX	1W	24.1	0.01	10	124	1,848	0.0105	3.7	30	0.95	0.10	0.11	2.52	4.73	4.85
NEX	3W	22.3	0.01	10	124	1,007	0.0107	3.6	30	0.92	0.10	0.11	2.26	4.23	4.33
NEX	5W	26.9	0.01	10	124	1,111	0.0099	3.4	30	0.88	0.10	0.11	2.60	4.85	4.97
NEX	7W	24.7	0.01	10	124	1,118	0.0071	3.3	30	0.84	0.10	0.11	2.28	4.23	4.34
NEX	9W	35.1	0.01	10	124	1,301	0.0100	3.1	30	0.81	0.10	0.11	3.13	5.78	5.93
NEX	11W	24.8	0.01	10	124	779	0.0075	3.1	30	0.79	0.10	0.11	2.16	3.98	4.08

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	13W	36.2	0.01	10	124	915	0.0114	3.0	30	0.77	0.10	0.11	3.07	5.64	5.78
NEX	15W	33.0	0.01	10	124	796	0.0139	2.9	30	0.73	0.10	0.11	2.65	4.84	4.96
NEX	17W	39.5	0.01	10	124	930	0.0120	2.7	30	0.70	0.10	0.11	3.04	5.53	5.67
NEX	19W	32.8	0.01	10	124	774	0.0094	2.6	30	0.66	0.10	0.11	2.38	4.30	4.41
NEX	21W	35.4	0.01	10	124	1,066	0.0082	2.6	30	0.66	0.10	0.11	2.57	4.65	4.76
NEX	23W	19.1	0.01	10	134	860	0.0063	2.5	30	0.64	0.10	0.11	1.34	2.42	2.48
NEX	25W	11.4	0.01	10	134	684	0.0073	2.5	30	0.64	0.10	0.11	0.80	1.44	1.48
NEX	27W	22.7	0.01	10	134	1,949	0.0103	2.4	30	0.62	0.10	0.11	1.55	2.78	2.85
NEX	4B	15.1	0.01	10	134	642	0.0098	2.4	30	0.62	0.10	0.11	1.03	1.85	1.90
NEX	38W	19.2	0.01	10	134	1,430	0.0096	2.4	30	0.61	0.10	0.11	1.29	2.31	2.37
NEX	2B	27.6	0.01	10	134	1,623	0.0080	2.3	30	0.59	0.10	0.11	1.79	3.20	3.28
NEX	29X	7.3	0.01	10	124	1,088	0.0076	2.6	30	0.66	0.10	0.11	0.53	0.96	0.98
NEX	31X	23.1	0.01	10	124	882	0.0135	2.5	30	0.64	0.10	0.11	1.63	2.93	3.01
NEX	33X	13.0	0.01	10	124	429	0.0129	2.4	30	0.62	0.10	0.11	0.89	1.59	1.63
NEX	35X	18.5	0.01	10	134	1,115	0.0128	2.4	30	0.62	0.10	0.11	1.26	2.26	2.32
NEX	40Y	6.4	0.01	10	124	970	0.0089	2.6	30	0.66	0.10	0.11	0.46	0.84	0.86
NEX	42Y	11.2	0.01	10	124	831	0.0114	2.6	30	0.66	0.10	0.11	0.81	1.47	1.50
NEX	44Y	15.6	0.01	10	124	883	0.0107	2.5	30	0.64	0.10	0.11	1.10	1.98	2.03
NEX	46Y	9.5	0.01	10	124	390	0.0168	2.4	30	0.62	0.10	0.11	0.65	1.17	1.19
NEX	48Y	13.1	0.01	10	134	658	0.0167	2.4	30	0.61	0.10	0.11	0.88	1.58	1.62
NEX	50Y	24.4	0.01	10	134	1,416	0.0105	2.4	30	0.61	0.10	0.11	1.64	2.94	3.01
NEX	53Z	12.8	0.01	10	124	1,273	0.0132	2.9	30	0.73	0.10	0.11	1.03	1.88	1.93
NEX	55Z	24.9	0.01	10	124	1,086	0.0117	2.8	30	0.72	0.10	0.11	1.97	3.60	3.69
NEX	57Z	25.8	0.01	10	124	863	0.0135	2.6	30	0.68	0.10	0.11	1.93	3.50	3.59
NEX	59Z	30.1	0.01	10	124	922	0.0123	2.6	30	0.66	0.10	0.11	2.19	3.96	4.05
NEX	61Z	28.0	0.01	10	124	907	0.0102	2.5	30	0.64	0.10	0.11	1.97	3.55	3.64
NEX	63Z	32.7	0.01	10	124	1,048	0.0113	2.5	30	0.64	0.10	0.11	2.30	4.15	4.25
NEX	65Z	25.7	0.01	10	134	1,003	0.0124	2.4	30	0.62	0.10	0.11	1.75	3.14	3.22
NEX	67Z	9.1	0.01	10	134	399	0.0147	2.4	30	0.62	0.10	0.11	0.62	1.11	1.14
NEX	69Z	24.4	0.01	10	134	1,072	0.0128	2.4	30	0.61	0.10	0.11	1.64	2.94	3.01
NEX	71Z	27.0	0.01	10	134	1,351	0.0092	2.3	30	0.59	0.10	0.11	1.75	3.13	3.20
Outlet 110A															
NEX	101A	8.2	0.01	10	124	1,080	0.0117	2.9	30	0.73	0.10	0.11	0.66	1.20	1.24
NEX	103A	17.4	0.01	10	124	846	0.0126	2.7	30	0.70	0.10	0.11	1.34	2.44	2.50
NEX	105A	18.4	0.01	10	124	782	0.0142	2.6	30	0.68	0.10	0.11	1.38	2.50	2.56

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	107A	24.3	0.01	10	120	822	0.0118	2.6	30	0.66	0.11	0.12	1.92	3.33	3.41
NEX	109A	21.0	0.01	10	120	717	0.0102	2.6	30	0.66	0.11	0.12	1.66	2.88	2.95
Outlet 165B															
NEX	13B	30.0	0.01	10	124	1,041	0.0084	4.0	30	1.03	0.10	0.11	3.40	6.44	6.60
NEX	14B	22.1	0.01	10	134	2,097	0.0097	4.1	30	1.05	0.10	0.11	2.55	4.84	4.96
NEX	20B	38.7	0.01	10	124	1,100	0.0114	4.1	30	1.06	0.10	0.11	4.51	8.57	8.78
NEX	21B	11.2	0.01	10	134	976	0.0116	4.1	30	1.06	0.10	0.11	1.31	2.48	2.55
NEX	28B	24.5	0.01	10	134	1,210	0.0123	4.4	30	1.14	0.10	0.11	3.07	5.88	6.02
NEX	29B	7.6	0.01	10	124	918	0.0157	4.4	30	1.14	0.10	0.11	0.95	1.82	1.87
NEX	35B	15.5	0.01	10	124	1,532	0.0248	4.6	30	1.19	0.10	0.11	2.03	3.90	4.00
NEX	36B	29.0	0.01	10	124	1,706	0.0265	4.7	30	1.21	0.10	0.11	3.86	7.43	7.61
NEX	100B	67.1	0.01	10	120	240	0.0500	5.7	5	3.41	0.68	0.68	155.57	165.59	169.73
NEX	102B	26.0	0.01	10	124	1,058	0.0457	4.9	30	1.25	0.10	0.11	3.58	6.91	7.08
NEX	104B	24.8	0.01	10	124	1,470	0.0295	4.7	30	1.21	0.10	0.11	3.30	6.35	6.51
NEX	106B	18.1	0.01	10	124	959	0.0182	4.6	30	1.17	0.10	0.11	2.33	4.47	4.58
NEX	118B	34.1	0.01	10	124	944	0.0135	4.3	30	1.10	0.10	0.11	4.13	7.87	8.07
NEX	142B	27.0	0.01	10	124	872	0.0100	3.9	30	1.01	0.10	0.11	3.00	5.67	5.81
NEX	144B	24.7	0.01	10	124	1,127	0.0100	3.8	30	0.97	0.10	0.11	2.64	4.97	5.09
NEX	146B	26.0	0.01	10	124	1,083	0.0087	3.6	30	0.94	0.10	0.11	2.69	5.05	5.17
NEX	148B	22.6	0.01	10	124	872	0.0064	3.5	30	0.90	0.10	0.11	2.24	4.18	4.29
NEX	150B	28.5	0.01	10	124	1,358	0.0100	3.3	30	0.84	0.10	0.11	2.63	4.88	5.00
NEX	152B	23.4	0.01	10	124	1,217	0.0094	3.1	30	0.81	0.10	0.11	2.08	3.85	3.94
NEX	154B	20.9	0.01	10	124	807	0.0117	3.0	30	0.77	0.10	0.11	1.77	3.25	3.34
NEX	156B	26.1	0.01	10	124	966	0.0109	2.9	30	0.75	0.10	0.11	2.15	3.94	4.04
NEX	158B	26.4	0.01	10	124	973	0.0103	2.9	30	0.73	0.10	0.11	2.12	3.87	3.97
NEX	160B	29.7	0.01	10	124	1,044	0.0088	2.8	30	0.72	0.10	0.11	2.35	4.29	4.40
NEX	162B	27.9	0.01	10	124	1,101	0.0100	2.7	30	0.70	0.10	0.11	2.15	3.91	4.01
NEX	164B	25.2	0.01	10	124	1,034	0.0097	2.7	30	0.70	0.10	0.11	1.94	3.53	3.62
NEX	108C	959.0	0.01	10	120	2,000	0.0500	5.7	19	1.82	0.51	0.51	890.11	995.69	1,020.58
NEX	110C	39.7	0.01	10	124	1,568	0.0397	4.8	30	1.23	0.10	0.11	5.37	10.35	10.61
NEX	115C	12.0	0.01	10	124	949	0.0196	4.6	30	1.17	0.10	0.11	1.54	2.96	3.03
NEX	112D	37.7	0.01	10	124	2,150	0.0278	4.8	30	1.23	0.10	0.11	5.10	9.83	10.08
NEX	120E	31.1	0.01	10	124	2,049	0.0310	4.7	30	1.21	0.10	0.11	4.14	7.97	8.17
NEX	122E	18.9	0.01	10	124	866	0.0304	4.6	30	1.19	0.10	0.11	2.47	4.75	4.87
NEX	124E	37.4	0.01	10	134	1,753	0.0175	4.5	30	1.16	0.10	0.11	4.77	9.14	9.37

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	126E	21.3	0.01	10	134	919	0.0177	4.4	30	1.12	0.10	0.11	2.62	5.01	5.13
NEX	128E	16.6	0.01	10	134	904	0.0144	4.3	30	1.10	0.10	0.11	2.01	3.83	3.93
NEX	131F	13.6	0.01	10	134	906	0.0318	4.6	30	1.19	0.10	0.11	1.78	3.42	3.51
NEX	133F	26.1	0.01	10	134	1,224	0.0214	4.6	30	1.17	0.10	0.11	3.36	6.44	6.61
NEX	135F	37.2	0.01	10	134	1,787	0.0163	4.4	30	1.14	0.10	0.11	4.66	8.92	9.14
NEX	137F	24.5	0.01	10	134	979	0.0194	4.3	30	1.10	0.10	0.11	2.96	5.65	5.79
NEX	139F	14.3	0.01	10	134	790	0.0144	4.2	30	1.08	0.10	0.11	1.70	3.23	3.31

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	25	124	2,398	0.0092	3.7	30	0.95	0.10	0.11	4.18	7.85	8.05
NEX	3A	39.8	0.01	25	124	1,498	0.0097	3.3	30	0.86	0.10	0.11	3.77	7.01	7.18
NEX	5A	38.3	0.01	25	124	1,253	0.0091	3.2	30	0.81	0.10	0.11	3.41	6.30	6.46
NEX	7A	32.4	0.01	25	124	1,114	0.0101	3.1	30	0.79	0.10	0.11	2.82	5.19	5.32
NEX	9A	27.7	0.01	25	124	1,242	0.0087	3.0	30	0.77	0.10	0.11	2.35	4.32	4.42
NEX	11A	33.9	0.01	25	124	1,469	0.0099	3.0	30	0.77	0.10	0.11	2.87	5.28	5.41
NEX	13A	38.9	0.01	25	134	1,177	0.0087	2.9	30	0.74	0.10	0.11	3.17	5.80	5.94
NEX	15A	38.3	0.01	25	134	994	0.0104	2.8	30	0.72	0.10	0.11	3.03	5.53	5.67
Outlet 6B															
NEX	1B	22.1	0.01	25	124	2,664	0.0093	3.0	30	0.77	0.10	0.11	1.87	3.44	3.53
NEX	3B	39.9	0.01	25	124	1,443	0.0124	2.8	30	0.72	0.10	0.11	3.16	5.77	5.91
NEX	5B	39.0	0.01	25	124	732	0.0103	2.8	30	0.72	0.10	0.11	3.09	5.64	5.78
Outlet 110CG															
NEX	1C	17.8	0.01	25	124	1,591	0.0201	5.4	30	1.40	0.10	0.11	2.74	5.35	5.48
NEX	3C	15.5	0.01	25	124	1,045	0.0180	5.3	30	1.35	0.10	0.11	2.30	4.47	4.59
NEX	5C	29.5	0.01	25	124	1,347	0.0173	5.1	30	1.31	0.10	0.11	4.25	8.24	8.45
NEX	7C	25.1	0.01	25	124	1,037	0.0175	5.0	30	1.29	0.10	0.11	3.56	6.89	7.07
NEX	9C	20.7	0.01	25	124	733	0.0164	4.9	30	1.26	0.10	0.11	2.87	5.54	5.68
NEX	11C	25.8	0.01	25	124	713	0.0162	4.8	30	1.24	0.10	0.11	3.52	6.79	6.96
NEX	13C	31.9	0.01	25	124	939	0.0156	4.8	30	1.24	0.10	0.11	4.35	8.39	8.60
NEX	15C	34.6	0.01	25	124	903	0.0126	4.7	30	1.22	0.10	0.11	4.64	8.94	9.16
NEX	17C	32.8	0.01	25	124	1,112	0.0142	4.6	30	1.17	0.10	0.11	4.22	8.10	8.30
NEX	19C	23.2	0.01	25	124	1,160	0.0121	4.4	30	1.13	0.10	0.11	2.88	5.51	5.65
NEX	21C	29.7	0.01	25	124	1,549	0.0113	4.1	30	1.06	0.10	0.11	3.46	6.58	6.74
NEX	23C	35.4	0.01	25	124	1,993	0.0106	3.7	30	0.95	0.10	0.11	3.70	6.95	7.12
NEX	25C	28.1	0.01	25	124	1,765	0.0089	3.4	30	0.88	0.10	0.11	2.72	5.07	5.20
NEX	27C	35.0	0.01	25	124	1,922	0.0082	3.2	30	0.81	0.10	0.11	3.12	5.76	5.91
NEX	29C	34.0	0.01	25	124	1,457	0.0104	3.1	30	0.79	0.10	0.11	2.95	5.44	5.58
NEX	31C	29.3	0.01	25	124	1,251	0.0108	3.0	30	0.77	0.10	0.11	2.48	4.56	4.67
NEX	33C	35.6	0.01	25	124	2,107	0.0110	2.9	30	0.74	0.10	0.11	2.90	5.31	5.44
NEX	109C	21.4	0.01	25	124	2,279	0.0094	2.8	30	0.72	0.10	0.11	1.69	3.09	3.17
NEX	35D	16.7	0.01	25	134	1,299	0.0130	4.6	30	1.17	0.10	0.11	2.15	4.12	4.23
NEX	37D	29.0	0.01	25	124	1,308	0.0138	4.4	30	1.13	0.10	0.11	3.60	6.89	7.06
NEX	39D	29.9	0.01	25	124	1,530	0.0105	4.2	30	1.08	0.10	0.11	3.55	6.76	6.93

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	41D	21.4	0.01	25	124	1,185	0.0107	4.0	30	1.02	0.10	0.11	2.40	4.54	4.66
NEX	43D	26.1	0.01	25	124	1,524	0.0106	3.7	30	0.95	0.10	0.11	2.73	5.13	5.25
NEX	45D	30.2	0.01	25	134	1,697	0.0084	3.5	30	0.90	0.10	0.11	2.99	5.59	5.73
NEX	47D	30.2	0.01	25	134	1,239	0.0099	3.2	30	0.81	0.10	0.11	2.69	4.97	5.10
NEX	49D	39.0	0.01	25	134	1,500	0.0087	3.1	30	0.79	0.10	0.11	3.39	6.25	6.40
NEX	51D	31.8	0.01	25	134	1,258	0.0114	3.0	30	0.77	0.10	0.11	2.69	4.95	5.07
NEX	53D	23.0	0.01	25	134	1,118	0.0076	3.0	30	0.77	0.10	0.11	1.95	3.58	3.67
NEX	55D	14.6	0.01	25	124	1,256	0.0099	2.9	30	0.74	0.10	0.11	1.19	2.18	2.23
NEX	58E	12.6	0.01	25	124	1,440	0.0115	2.9	30	0.74	0.10	0.11	1.03	1.88	1.93
NEX	60E	28.7	0.01	25	124	3,334	0.0115	2.8	30	0.72	0.10	0.11	2.27	4.15	4.25
NEX	62F	16.5	0.01	25	124	1,673	0.0210	5.4	30	1.38	0.10	0.11	2.50	4.88	5.00
NEX	64F	24.0	0.01	25	124	955	0.0200	5.3	30	1.35	0.10	0.11	3.56	6.93	7.10
NEX	66F	33.9	0.01	25	124	1,251	0.0183	5.1	30	1.31	0.10	0.11	4.88	9.47	9.70
NEX	68F	29.6	0.01	25	124	1,122	0.0174	5.0	30	1.29	0.10	0.11	4.20	8.13	8.34
NEX	70F	25.9	0.01	25	124	874	0.0146	4.9	30	1.26	0.10	0.11	3.59	6.94	7.11
NEX	72F	26.7	0.01	25	124	907	0.0150	4.8	30	1.24	0.10	0.11	3.64	7.02	7.20
NEX	74F	29.9	0.01	25	124	876	0.0140	4.7	30	1.22	0.10	0.11	4.01	7.73	7.92
NEX	76F	39.5	0.01	25	124	987	0.0160	4.6	30	1.17	0.10	0.11	5.08	9.75	9.99
NEX	78F	38.8	0.01	25	124	900	0.0130	4.4	30	1.13	0.10	0.11	4.82	9.22	9.45
NEX	80F	39.6	0.01	25	124	831	0.0143	4.2	30	1.08	0.10	0.11	4.70	8.95	9.17
NEX	82F	39.9	0.01	25	124	829	0.0121	4.0	30	1.04	0.10	0.11	4.56	8.65	8.87
NEX	84F	39.8	0.01	25	124	853	0.0117	3.9	30	0.99	0.10	0.11	4.33	8.17	8.38
NEX	86F	39.1	0.01	25	124	1,094	0.0099	3.9	30	0.99	0.10	0.11	4.26	8.04	8.24
NEX	88F	22.9	0.01	25	124	845	0.0078	3.7	30	0.95	0.10	0.11	2.39	4.49	4.61
NEX	90F	36.2	0.01	25	124	1,675	0.0088	3.4	30	0.88	0.10	0.11	3.50	6.53	6.69
NEX	92F	23.7	0.01	25	124	1,298	0.0095	3.2	30	0.81	0.10	0.11	2.11	3.90	4.00
NEX	94F	17.9	0.01	25	124	1,020	0.0084	3.1	30	0.79	0.10	0.11	1.56	2.87	2.94
NEX	96F	22.5	0.01	25	124	1,387	0.0064	3.0	30	0.77	0.10	0.11	1.91	3.51	3.59
NEX	98F	21.4	0.01	25	124	1,222	0.0099	3.0	30	0.77	0.10	0.11	1.81	3.33	3.41
NEX	100F	16.7	0.01	25	124	1,247	0.0115	2.9	30	0.74	0.10	0.11	1.36	2.49	2.55
NEX	102F	23.0	0.01	25	124	3,287	0.0111	2.8	30	0.72	0.10	0.11	1.82	3.32	3.41
NEX	104G	18.2	0.01	25	134	1,898	0.0104	2.9	30	0.74	0.10	0.11	1.48	2.71	2.78
NEX	106G	39.9	0.01	25	134	2,469	0.0090	2.8	30	0.72	0.10	0.11	3.16	5.77	5.91
Outlet 4H															
NEX	1H	19.0	0.01	25	134	1,718	0.0090	2.9	30	0.74	0.10	0.11	1.55	2.83	2.90

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	3H	39.5	0.01	25	134	1,850	0.0112	2.8	30	0.72	0.10	0.11	3.13	9.43	9.67
Outlet 63IJ															
NEX	1I	10.8	0.01	25	124	1,416	0.0169	5.1	30	1.31	0.10	0.11	1.56	3.02	3.10
NEX	3I	18.1	0.01	25	124	929	0.0163	5.0	30	1.29	0.10	0.11	2.57	4.97	5.10
NEX	5I	12.8	0.01	25	124	459	0.0169	5.0	28	1.33	0.10	0.11	1.87	3.63	3.73
NEX	7I	16.5	0.01	25	134	616	0.0136	4.9	30	1.26	0.12	0.13	2.70	4.78	4.90
NEX	9I	25.9	0.01	25	134	879	0.0149	4.9	30	1.26	0.12	0.13	4.24	7.51	7.70
NEX	11I	26.8	0.01	25	134	968	0.0127	4.8	30	1.24	0.11	0.12	3.99	7.35	7.53
NEX	13I	31.1	0.01	25	134	1,180	0.0126	4.7	30	1.20	0.10	0.11	4.11	7.90	8.10
NEX	15I	37.7	0.01	25	134	1,443	0.0129	4.6	30	1.17	0.10	0.11	4.85	9.30	9.54
NEX	17I	27.6	0.01	25	134	900	0.0119	4.3	30	1.11	0.10	0.11	3.37	6.43	6.59
NEX	19I	25.5	0.01	25	134	838	0.0125	4.2	30	1.08	0.10	0.11	3.03	5.77	5.91
NEX	21I	37.2	0.01	25	134	1,165	0.0103	4.0	30	1.04	0.10	0.11	4.26	8.07	8.27
NEX	23I	34.3	0.01	25	134	1,034	0.0107	3.9	30	0.99	0.10	0.11	3.74	7.05	7.23
NEX	25I	38.0	0.01	25	134	1,049	0.0101	3.7	30	0.95	0.10	0.11	3.97	7.46	7.65
NEX	27I	39.5	0.01	25	134	2,077	0.0093	3.3	30	0.86	0.10	0.11	3.74	6.95	7.13
NEX	29I	29.4	0.01	25	134	1,661	0.0096	3.1	30	0.79	0.10	0.11	2.55	4.70	4.82
NEX	31I	39.6	0.01	25	134	1,306	0.0098	3.0	30	0.77	0.10	0.11	3.35	6.16	6.32
NEX	33I	39.3	0.01	25	134	1,279	0.0066	3.0	30	0.77	0.10	0.11	3.33	6.12	6.27
NEX	35I	26.7	0.01	25	134	878	0.0114	2.9	30	0.74	0.10	0.11	2.17	3.98	4.07
NEX	37I	37.9	0.01	25	134	1,809	0.0076	2.8	30	0.72	0.10	0.11	3.00	5.48	5.61
NEX	39J	27.8	0.01	25	134	1,645	0.0119	4.6	30	1.17	0.10	0.11	3.58	6.86	7.04
NEX	41J	18.8	0.01	25	134	760	0.0129	4.4	30	1.13	0.10	0.11	2.34	4.47	4.58
NEX	43J	32.3	0.01	25	134	1,022	0.0128	4.3	30	1.11	0.10	0.11	3.94	7.52	7.71
NEX	45J	32.3	0.01	25	134	1,126	0.0115	4.1	30	1.06	0.10	0.11	3.77	7.16	7.34
NEX	47J	27.3	0.01	25	134	1,116	0.0106	3.9	30	0.99	0.10	0.11	2.97	5.61	5.75
NEX	49J	22.5	0.01	25	134	1,019	0.0104	3.7	30	0.95	0.10	0.11	2.35	4.42	4.53
NEX	51J	18.6	0.01	25	134	1,085	0.0098	3.3	30	0.86	0.10	0.11	1.76	3.27	3.35
NEX	53J	35.3	0.01	25	134	1,400	0.0103	3.3	30	0.86	0.10	0.11	3.34	6.21	6.37
NEX	55J	40.0	0.01	25	134	1,510	0.0079	3.2	30	0.81	0.10	0.11	3.56	6.58	6.75
NEX	57J	40.0	0.01	25	134	1,410	0.0090	3.0	30	0.77	0.10	0.11	3.39	6.23	6.39
NEX	59J	37.3	0.01	25	134	1,434	0.0091	2.9	30	0.74	0.10	0.11	3.04	5.56	5.70
NEX	61J	28.5	0.01	25	134	2,082	0.0073	2.8	30	0.72	0.10	0.11	2.26	4.12	4.23
Outlet 184KU															
NEX	1K	464.4	0.01	25	120	1,160	0.0500	7.0	10	3.03	0.65	0.65	914.66	980.87	1,005.39

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	3K	21.5	0.01	25	124	571	0.0305	5.6	18	1.84	0.18	0.19	7.52	11.48	11.77
NEX	5K	39.6	0.01	25	124	1,014	0.0204	5.5	30	1.42	0.10	0.11	6.19	12.09	12.39
NEX	7K	39.6	0.01	25	124	1,054	0.0183	5.4	30	1.40	0.10	0.11	6.10	11.90	12.20
NEX	9K	30.7	0.01	25	134	957	0.0161	5.3	30	1.35	0.14	0.15	6.22	10.33	10.59
NEX	11K	33.2	0.01	25	134	1,511	0.0147	5.2	30	1.33	0.14	0.15	6.62	10.99	11.26
NEX	83B	26.8	0.01	25	134	709	0.0130	4.9	30	1.26	0.12	0.13	4.39	7.77	7.97
NEX	24K	30.9	0.01	25	134	778	0.0132	4.9	30	1.26	0.12	0.13	5.06	8.96	9.19
NEX	26K	32.3	0.01	25	134	881	0.0107	4.9	30	1.26	0.12	0.13	5.29	9.37	9.60
NEX	28K	28.9	0.01	25	134	934	0.0105	4.8	30	1.24	0.11	0.12	4.30	7.92	8.12
NEX	30K	21.2	0.01	25	134	853	0.0132	4.7	30	1.22	0.11	0.12	3.10	5.71	5.85
NEX	64K	31.4	0.01	25	134	784	0.0105	4.8	30	1.24	0.11	0.12	4.67	8.60	8.82
NEX	66K	37.2	0.01	25	124	770	0.0108	4.7	30	1.22	0.10	0.11	4.99	9.61	9.85
NEX	68K	34.7	0.01	25	124	992	0.0100	4.6	30	1.17	0.10	0.11	4.47	8.57	8.78
NEX	70K	19.1	0.01	25	124	975	0.0088	4.4	30	1.13	0.10	0.11	2.37	4.53	4.65
NEX	72K	10.9	0.01	25	124	715	0.0070	4.3	30	1.11	0.10	0.11	1.33	2.54	2.60
NEX	74K	24.2	0.01	25	124	1,168	0.0128	4.2	30	1.08	0.10	0.11	2.87	5.47	5.60
NEX	106K	32.1	0.01	25	124	913	0.0110	4.1	30	1.06	0.10	0.11	3.74	7.11	7.29
NEX	108K	37.7	0.01	25	124	1,081	0.0100	4.0	30	1.04	0.10	0.11	4.31	8.17	8.38
NEX	110K	39.4	0.01	25	124	1,044	0.0124	3.9	30	0.99	0.10	0.11	4.29	8.09	8.30
NEX	112K	39.8	0.01	25	124	1,121	0.0111	3.7	30	0.95	0.10	0.11	4.16	7.81	8.01
NEX	114K	40.0	0.01	25	124	960	0.0095	3.5	30	0.90	0.10	0.11	3.96	7.40	7.58
NEX	116K	39.8	0.01	25	124	919	0.0099	3.3	30	0.86	0.10	0.11	3.77	7.01	7.18
NEX	118K	39.8	0.01	25	134	835	0.0198	3.2	30	0.81	0.10	0.11	3.55	6.56	6.72
NEX	120K	22.4	0.01	25	134	1,042	0.0077	3.1	30	0.79	0.10	0.11	1.95	3.59	3.68
NEX	15B	39.1	0.01	25	134	1,212	0.0083	3.1	30	0.79	0.10	0.11	3.40	6.26	6.42
NEX	153K	38.8	0.01	25	134	2,066	0.0097	3.0	30	0.77	0.10	0.11	3.29	6.04	6.20
NEX	155K	27.3	0.01	25	134	1,710	0.0088	2.9	30	0.74	0.10	0.11	2.22	4.07	4.17
NEX	157K	22.1	0.01	25	134	1,697	0.0087	2.8	30	0.72	0.10	0.11	1.75	3.19	3.27
NEX	6B	39.7	0.01	25	134	1,115	0.0092	2.8	30	0.72	0.10	0.11	3.14	5.73	5.88
NEX	175K	28.5	0.01	25	134	1,834	0.0081	2.8	30	0.72	0.10	0.11	2.26	4.12	4.23
NEX	13L	28.8	0.01	25	134	659	0.0212	5.8	14	2.13	0.33	0.34	20.86	26.00	26.65
NEX	15L	24.8	0.01	25	134	724	0.0209	5.7	16	1.97	0.30	0.31	15.15	19.37	19.85
NEX	17L	25.3	0.01	25	134	1,152	0.0170	5.6	30	1.44	0.17	0.18	6.56	10.09	10.34
NEX	19L	21.3	0.01	25	134	1,374	0.0164	5.4	30	1.40	0.16	0.17	5.07	7.98	8.18
NEX	21L	17.9	0.01	25	134	1,523	0.0156	5.3	30	1.35	0.14	0.15	3.62	6.02	6.17

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	32M	935.0	0.9	25	120	1,000	0.2000	7.0	6	3.85	0.70	0.88	3,167.78	3,227.99	3,308.69
NEX	34M	31.7	0.01	25	134	1,319	0.0217	5.8	30	1.49	0.19	0.20	9.45	13.95	14.29
NEX	36M	29.5	0.01	25	134	1,114	0.0194	5.6	30	1.44	0.17	0.18	7.65	11.77	12.06
NEX	38M	27.9	0.01	25	134	1,014	0.0181	5.4	30	1.40	0.16	0.17	6.64	10.45	10.71
NEX	40M	39.2	0.01	25	134	1,409	0.0155	5.4	30	1.38	0.15	0.16	8.66	13.99	14.34
NEX	68B	23.0	0.01	25	134	885	0.0208	5.3	30	1.35	0.14	0.15	4.66	7.74	7.93
NEX	53M	18.1	0.01	25	134	1,259	0.0092	5.1	30	1.31	0.13	0.14	3.32	5.69	5.83
NEX	64B	24.1	0.01	25	134	934	0.0115	5.0	30	1.29	0.13	0.14	4.35	7.44	7.63
NEX	60M	21.5	0.01	25	134	1,075	0.0132	4.9	30	1.26	0.12	0.13	3.52	6.23	6.39
NEX	42N	959.0	0.01	25	120	2,000	0.0500	7.0	15	2.50	0.60	0.60	1,438.44	1,563.45	1,602.53
NEX	44N	39.5	0.01	25	134	684	0.0517	5.8	12	2.29	0.36	0.37	33.47	40.79	41.81
NEX	46N	38.9	0.01	25	134	702	0.0282	5.7	14	2.10	0.33	0.34	27.77	34.60	35.46
NEX	48N	37.9	0.01	25	134	938	0.0231	5.6	22	1.67	0.25	0.26	16.46	22.15	22.71
NEX	50N	32.3	0.01	25	134	1,933	0.0092	5.4	30	1.40	0.16	0.17	7.69	12.10	12.41
NEX	55O	35.7	0.01	25	134	2,369	0.0122	5.4	30	1.40	0.16	0.17	8.50	13.38	13.71
NEX	57O	19.0	0.01	25	134	1,288	0.0125	5.4	30	1.38	0.15	0.16	4.20	6.78	6.95
NEX	76P	199.8	0.01	25	120	640	0.0500	7.0	7	3.58	0.69	0.69	493.64	524.22	537.33
NEX	78P	26.5	0.01	25	124	1,220	0.0087	5.8	30	1.49	0.12	0.13	5.13	9.22	9.45
NEX	80P	39.7	0.01	25	134	2,419	0.0185	5.6	30	1.44	0.17	0.18	10.29	15.83	16.23
NEX	57B	40.0	0.01	25	134	949	0.0200	5.4	29	1.42	0.17	0.18	10.22	15.71	16.10
NEX	87P	40.0	0.01	25	134	856	0.0115	5.6	27	1.52	0.20	0.21	12.77	18.51	18.97
NEX	89P	40.0	0.01	25	134	1,066	0.0130	5.2	30	1.33	0.14	0.15	7.98	13.24	13.58
NEX	91P	40.0	0.01	25	134	1,323	0.0100	5.1	30	1.31	0.13	0.14	7.34	12.57	12.88
NEX	93P	38.5	0.01	25	134	1,231	0.0098	4.9	30	1.26	0.12	0.13	6.31	11.17	11.45
NEX	95P	32.9	0.01	25	124	853	0.0100	4.8	30	1.24	0.10	0.11	4.49	8.66	8.87
NEX	97P	32.3	0.01	25	124	903	0.0083	4.7	30	1.20	0.10	0.11	4.26	8.20	8.40
NEX	99P	36.0	0.01	25	124	1,173	0.0077	4.5	30	1.15	0.10	0.11	4.55	8.72	8.93
NEX	101P	22.9	0.01	25	124	832	0.0121	4.4	30	1.13	0.10	0.11	2.85	5.44	5.58
NEX	103P	12.6	0.01	25	124	949	0.0105	4.2	30	1.08	0.10	0.11	1.50	2.85	2.92
NEX	82Q	40.0	0.01	25	134	1,582	0.0272	5.8	30	1.49	0.19	0.20	11.92	17.59	18.03
NEX	84Q	40.0	0.01	25	134	1,847	0.0211	5.6	30	1.44	0.17	0.18	10.37	15.95	16.35
NEX	122R	21.6	0.01	25	134	1,940	0.0123	4.7	30	1.22	0.11	0.12	3.16	5.81	5.96
NEX	124R	32.5	0.01	25	134	1,189	0.0132	4.7	30	1.20	0.10	0.11	4.29	8.25	8.46
NEX	126R	23.9	0.01	25	134	803	0.0128	4.6	30	1.17	0.10	0.11	3.08	5.90	6.05
NEX	128R	28.8	0.01	25	134	966	0.0104	4.7	30	1.20	0.10	0.11	3.80	7.31	7.49

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	130R	29.3	0.01	25	134	795	0.0096	4.4	30	1.13	0.10	0.11	3.64	6.96	7.13
NEX	132R	27.5	0.01	25	134	759	0.0105	4.3	30	1.11	0.10	0.11	3.36	6.41	6.57
NEX	134R	27.3	0.01	25	134	740	0.0098	4.2	30	1.08	0.10	0.11	3.24	6.17	6.32
NEX	136R	29.4	0.01	25	134	849	0.0100	4.1	30	1.06	0.10	0.11	3.43	6.51	6.68
NEX	138R	36.9	0.01	25	134	960	0.0102	4.0	30	1.04	0.10	0.11	4.22	8.00	8.20
NEX	140R	27.6	0.01	25	134	705	0.0125	3.9	30	0.99	0.10	0.11	3.01	5.67	5.82
NEX	142R	36.0	0.01	25	134	966	0.0104	3.7	30	0.95	0.10	0.11	3.76	7.07	7.24
NEX	144R	39.6	0.01	25	134	1,078	0.0094	3.4	30	0.88	0.10	0.11	3.83	7.14	7.32
NEX	146R	27.4	0.01	25	134	693	0.0144	3.2	30	0.81	0.10	0.11	2.44	4.51	4.62
NEX	148R	27.6	0.01	25	134	1,266	0.0097	3.2	30	0.81	0.10	0.11	2.46	4.55	4.66
NEX	150R	20.7	0.01	25	134	1,379	0.0096	3.1	30	0.79	0.10	0.11	1.80	3.32	3.40
NEX	17B	39.1	0.01	25	134	1,212	0.0083	3.0	30	0.77	0.10	0.11	3.31	6.09	6.24
NEX	159S	39.3	0.01	25	134	2,302	0.0110	2.9	30	0.74	0.10	0.11	3.20	5.86	6.00
NEX	161S	36.7	0.01	25	134	2,012	0.0121	2.8	30	0.72	0.10	0.11	2.91	5.31	5.44
NEX	163T	16.1	0.01	25	134	1,839	0.0088	3.0	30	0.77	0.10	0.11	1.36	2.50	2.57
NEX	165T	28.5	0.01	25	134	887	0.0119	3.0	30	0.77	0.10	0.11	2.41	4.43	4.54
NEX	167T	38.0	0.01	25	134	1,078	0.0088	2.8	30	0.72	0.10	0.11	3.01	5.49	5.63
NEX	169T	39.8	0.01	25	134	1,337	0.0120	2.8	30	0.72	0.10	0.11	3.15	5.75	5.89
NEX	171T	29.2	0.01	25	134	1,813	0.0098	2.8	30	0.72	0.10	0.11	2.31	4.22	4.32
NEX	177U	29.4	0.01	25	134	3,079	0.0082	2.8	30	0.72	0.10	0.11	2.33	4.25	4.36
NEX	178U	29.1	0.01	25	134	2,590	0.0098	2.8	30	0.72	0.10	0.11	2.30	4.20	4.31
NEX	180U	31.8	0.01	25	134	2,207	0.0112	2.8	30	0.72	0.10	0.11	2.52	4.60	4.71
NEX	182U	21.3	0.01	25	134	2,448	0.0081	2.8	30	0.72	0.10	0.11	1.69	3.08	3.16
Outlet 8V															
NEX	1V	23.8	0.01	25	134	1,412	0.0103	2.8	30	0.72	0.10	0.11	1.88	3.44	3.52
NEX	3V	39.4	0.01	25	134	1,046	0.0115	2.8	30	0.72	0.10	0.11	3.12	5.69	5.84
NEX	5V	39.9	0.01	25	134	892	0.0100	2.8	30	0.72	0.10	0.11	3.16	5.77	5.91
NEX	7V	40.0	0.01	25	134	964	0.0100	2.8	30	0.72	0.10	0.11	3.17	5.78	5.93
Outlet 73WZ															
NEX	1W	24.1	0.01	25	124	1,848	0.0105	4.6	30	1.17	0.10	0.11	3.10	5.95	6.10
NEX	3W	22.3	0.01	25	124	1,007	0.0107	4.4	30	1.13	0.10	0.11	2.77	5.30	5.43
NEX	5W	26.9	0.01	25	124	1,111	0.0099	4.2	30	1.08	0.10	0.11	3.20	6.09	6.24
NEX	7W	24.7	0.01	25	124	1,118	0.0071	4.0	30	1.04	0.10	0.11	2.83	5.36	5.50
NEX	9W	35.1	0.01	25	124	1,301	0.0100	3.9	30	0.99	0.10	0.11	3.82	7.21	7.39
NEX	11W	24.8	0.01	25	124	779	0.0075	3.8	30	0.97	0.10	0.11	2.65	4.99	5.11

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	13W	36.2	0.01	25	124	915	0.0114	3.7	30	0.95	0.10	0.11	3.78	7.10	7.28
NEX	15W	33.0	0.01	25	124	796	0.0139	3.5	30	0.90	0.10	0.11	3.27	6.11	6.26
NEX	17W	39.5	0.01	25	124	930	0.0120	3.3	30	0.86	0.10	0.11	3.74	6.95	7.13
NEX	19W	32.8	0.01	25	124	774	0.0094	3.2	30	0.81	0.10	0.11	2.92	5.40	5.53
NEX	21W	35.4	0.01	25	124	1,066	0.0082	3.2	30	0.81	0.10	0.11	3.15	5.83	5.97
NEX	23W	19.1	0.01	25	134	860	0.0063	3.1	30	0.79	0.10	0.11	1.66	3.06	3.14
NEX	25W	11.4	0.01	25	134	684	0.0073	3.1	30	0.79	0.10	0.11	0.99	1.83	1.87
NEX	27W	22.7	0.01	25	134	1,949	0.0103	3.0	30	0.77	0.10	0.11	1.92	3.53	3.62
NEX	4B	15.1	0.01	25	134	642	0.0098	3.0	30	0.77	0.10	0.11	1.28	2.35	2.41
NEX	38W	19.2	0.01	25	134	1,430	0.0096	2.9	30	0.74	0.10	0.11	1.56	2.86	2.93
NEX	2B	27.6	0.01	25	134	1,623	0.0080	2.8	30	0.72	0.10	0.11	2.19	3.99	4.09
NEX	29X	7.3	0.01	25	124	1,088	0.0076	3.2	30	0.81	0.10	0.11	0.65	1.20	1.23
NEX	31X	23.1	0.01	25	124	882	0.0135	3.1	30	0.79	0.10	0.11	2.01	3.70	3.79
NEX	33X	13.0	0.01	25	124	429	0.0129	3.0	30	0.77	0.10	0.11	1.10	2.02	2.07
NEX	35X	18.5	0.01	25	134	1,115	0.0128	3.0	30	0.77	0.10	0.11	1.57	2.88	2.96
NEX	40Y	6.4	0.01	25	124	970	0.0089	3.2	30	0.81	0.10	0.11	0.57	1.05	1.08
NEX	42Y	11.2	0.01	25	124	831	0.0114	3.2	30	0.81	0.10	0.11	1.00	1.85	1.89
NEX	44Y	15.6	0.01	25	124	883	0.0107	3.1	30	0.79	0.10	0.11	1.36	2.50	2.57
NEX	46Y	9.5	0.01	25	124	390	0.0168	3.0	30	0.77	0.10	0.11	0.80	1.47	1.51
NEX	48Y	13.1	0.01	25	134	658	0.0167	2.9	30	0.74	0.10	0.11	1.07	1.96	2.00
NEX	50Y	24.4	0.01	25	134	1,416	0.0105	2.9	30	0.74	0.10	0.11	1.99	3.64	3.73
NEX	53Z	12.8	0.01	25	124	1,273	0.0132	3.5	30	0.90	0.10	0.11	1.27	2.37	2.43
NEX	55Z	24.9	0.01	25	124	1,086	0.0117	3.4	30	0.88	0.10	0.11	2.41	4.49	4.61
NEX	57Z	25.8	0.01	25	124	863	0.0135	3.2	30	0.83	0.10	0.11	2.36	4.37	4.48
NEX	59Z	30.1	0.01	25	124	922	0.0123	3.2	30	0.81	0.10	0.11	2.68	4.95	5.08
NEX	61Z	28.0	0.01	25	124	907	0.0102	3.1	30	0.79	0.10	0.11	2.43	4.48	4.59
NEX	63Z	32.7	0.01	25	124	1,048	0.0113	3.1	30	0.79	0.10	0.11	2.84	5.24	5.37
NEX	65Z	25.7	0.01	25	134	1,003	0.0124	3.0	30	0.77	0.10	0.11	2.18	4.00	4.10
NEX	67Z	9.1	0.01	25	134	399	0.0147	3.0	30	0.77	0.10	0.11	0.77	1.42	1.45
NEX	69Z	24.4	0.01	25	134	1,072	0.0128	2.9	30	0.74	0.10	0.11	1.99	3.64	3.73
NEX	71Z	27.0	0.01	25	134	1,351	0.0092	2.8	30	0.72	0.10	0.11	2.14	3.90	4.00
Outlet 110A															
NEX	101A	8.2	0.01	25	124	1,080	0.0117	3.5	30	0.90	0.10	0.11	0.81	1.52	1.55
NEX	103A	17.4	0.01	25	124	846	0.0126	3.3	30	0.86	0.10	0.11	1.65	3.06	3.14
NEX	105A	18.4	0.01	25	124	782	0.0142	3.2	30	0.83	0.10	0.11	1.68	3.11	3.19

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	107A	24.3	0.01	25	120	822	0.0118	3.2	30	0.81	0.20	0.21	4.13	5.76	5.90
NEX	109A	21.0	0.01	25	120	717	0.0102	3.2	30	0.81	0.20	0.21	3.57	4.98	5.10
Outlet 165B															
NEX	13B	30.0	0.01	25	124	1,041	0.0084	4.9	30	1.26	0.10	0.11	4.16	8.03	8.24
NEX	14B	22.1	0.01	25	134	2,097	0.0097	5.0	30	1.29	0.13	0.14	3.99	6.83	7.00
NEX	20B	38.7	0.01	25	124	1,100	0.0114	5.1	30	1.31	0.10	0.11	5.58	10.82	11.09
NEX	21B	11.2	0.01	25	134	976	0.0116	5.1	30	1.31	0.13	0.14	2.05	3.52	3.60
NEX	28B	24.5	0.01	25	134	1,210	0.0123	5.4	30	1.40	0.16	0.17	5.83	9.18	9.41
NEX	29B	7.6	0.01	25	124	918	0.0157	5.4	30	1.40	0.10	0.11	1.17	2.28	2.34
NEX	35B	15.5	0.01	25	124	1,532	0.0248	5.7	30	1.47	0.11	0.12	2.73	5.11	5.24
NEX	36B	29.0	0.01	25	124	1,706	0.0265	5.8	30	1.49	0.12	0.13	5.62	10.09	10.35
NEX	100B	67.1	0.01	25	120	240	0.0500	7.0	5	4.19	0.72	0.72	202.40	213.51	218.84
NEX	102B	26.0	0.01	25	124	1,058	0.0457	6.0	30	1.53	0.12	0.13	5.17	9.31	9.54
NEX	104B	24.8	0.01	25	124	1,470	0.0295	5.8	30	1.49	0.12	0.13	4.80	8.63	8.84
NEX	106B	18.1	0.01	25	124	959	0.0182	5.6	30	1.44	0.11	0.12	3.13	5.84	5.99
NEX	118B	34.1	0.01	25	124	944	0.0135	5.3	30	1.35	0.10	0.11	5.06	9.84	10.09
NEX	142B	27.0	0.01	25	124	872	0.0100	4.8	30	1.24	0.10	0.11	3.68	7.10	7.28
NEX	144B	24.7	0.01	25	124	1,127	0.0100	4.7	30	1.20	0.10	0.11	3.26	6.27	6.43
NEX	146B	26.0	0.01	25	124	1,083	0.0087	4.5	30	1.15	0.10	0.11	3.29	6.30	6.46
NEX	148B	22.6	0.01	25	124	872	0.0064	4.3	30	1.11	0.10	0.11	2.76	5.27	5.40
NEX	150B	28.5	0.01	25	124	1,358	0.0100	4.0	30	1.04	0.10	0.11	3.26	6.18	6.34
NEX	152B	23.4	0.01	25	124	1,217	0.0094	3.9	30	0.99	0.10	0.11	2.55	4.81	4.93
NEX	154B	20.9	0.01	25	124	807	0.0117	3.7	30	0.95	0.10	0.11	2.18	4.10	4.20
NEX	156B	26.1	0.01	25	124	966	0.0109	3.6	30	0.93	0.10	0.11	2.67	5.01	5.13
NEX	158B	26.4	0.01	25	124	973	0.0103	3.5	30	0.90	0.10	0.11	2.61	4.88	5.00
NEX	160B	29.7	0.01	25	124	1,044	0.0088	3.4	30	0.88	0.10	0.11	2.87	5.35	5.49
NEX	162B	27.9	0.01	25	124	1,101	0.0100	3.3	30	0.86	0.10	0.11	2.64	4.91	5.03
NEX	164B	25.2	0.01	25	124	1,034	0.0097	3.3	30	0.86	0.10	0.11	2.38	4.43	4.54
NEX	108C	959.0	0.01	25	120	2,000	0.0500	7.0	15	2.50	0.60	0.60	1,438.44	1,563.45	1,602.53
NEX	110C	39.7	0.01	25	124	1,568	0.0397	5.9	30	1.51	0.12	0.13	7.79	14.01	14.36
NEX	115C	12.0	0.01	25	124	949	0.0196	5.6	30	1.44	0.11	0.12	2.07	3.87	3.96
NEX	112D	37.7	0.01	25	124	2,150	0.0278	5.9	30	1.51	0.12	0.13	7.40	13.31	13.64
NEX	120E	31.1	0.01	25	124	2,049	0.0310	5.8	30	1.49	0.12	0.13	6.02	10.82	11.09
NEX	122E	18.9	0.01	25	124	866	0.0304	5.7	30	1.47	0.11	0.12	3.33	6.23	6.39
NEX	124E	37.4	0.01	25	134	1,753	0.0175	5.5	30	1.42	0.17	0.18	9.56	14.69	15.06

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	126E	21.3	0.01	25	134	919	0.0177	5.4	30	1.38	0.15	0.16	4.70	7.60	7.79
NEX	128E	16.6	0.01	25	134	904	0.0144	5.3	30	1.35	0.14	0.15	3.36	5.58	5.72
NEX	131F	13.6	0.01	25	134	906	0.0318	5.7	18	1.86	0.28	0.29	7.34	9.57	9.80
NEX	133F	26.1	0.01	25	134	1,224	0.0214	5.6	30	1.44	0.17	0.18	6.77	10.41	10.67
NEX	135F	37.2	0.01	25	134	1,787	0.0163	5.4	30	1.40	0.16	0.17	8.85	13.93	14.28
NEX	137F	24.5	0.01	25	134	979	0.0194	5.3	30	1.35	0.14	0.15	4.96	8.24	8.45
NEX	139F	14.3	0.01	25	134	790	0.0144	5.2	30	1.33	0.14	0.15	2.85	4.73	4.85

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	50	124	2,398	0.0092	4.2	30	1.08	0.10	0.11	4.75	9.04	9.27
NEX	3A	39.8	0.01	50	124	1,498	0.0097	3.8	30	0.98	0.10	0.11	4.29	8.09	8.29
NEX	5A	38.3	0.01	50	124	1,253	0.0091	3.6	30	0.93	0.10	0.11	3.92	7.35	7.53
NEX	7A	32.4	0.01	50	124	1,114	0.0101	3.5	30	0.90	0.10	0.11	3.21	6.00	6.15
NEX	9A	27.7	0.01	50	124	1,242	0.0087	3.4	30	0.87	0.10	0.11	2.65	4.93	5.06
NEX	11A	33.9	0.01	50	124	1,469	0.0099	3.4	30	0.87	0.10	0.11	3.24	6.04	6.19
NEX	13A	38.9	0.01	50	134	1,177	0.0087	3.3	30	0.85	0.10	0.11	3.64	6.76	6.93
NEX	15A	38.3	0.01	50	134	994	0.0104	3.2	30	0.82	0.10	0.11	3.45	6.39	6.55
Outlet 6B															
NEX	1B	22.1	0.01	50	124	2,664	0.0093	3.4	30	0.87	0.10	0.11	2.11	3.93	4.03
NEX	3B	39.9	0.01	50	124	1,443	0.0124	3.2	30	0.82	0.10	0.11	3.60	6.66	6.83
NEX	5B	39.0	0.01	50	124	732	0.0103	3.2	30	0.82	0.10	0.11	3.52	6.51	6.67
Outlet 110CG															
NEX	1C	17.8	0.01	50	124	1,591	0.0201	6.2	30	1.59	0.14	0.15	4.25	7.15	7.33
NEX	3C	15.5	0.01	50	124	1,045	0.0180	6.0	30	1.54	0.13	0.14	3.34	5.80	5.94
NEX	5C	29.5	0.01	50	124	1,347	0.0173	5.8	30	1.49	0.12	0.13	5.71	10.26	10.52
NEX	7C	25.1	0.01	50	124	1,037	0.0175	5.7	30	1.47	0.11	0.12	4.43	8.28	8.49
NEX	9C	20.7	0.01	50	124	733	0.0164	5.6	30	1.44	0.11	0.12	3.58	6.68	6.85
NEX	11C	25.8	0.01	50	124	713	0.0162	5.5	30	1.41	0.10	0.11	4.00	7.81	8.01
NEX	13C	31.9	0.01	50	124	939	0.0156	5.5	30	1.41	0.10	0.11	4.95	9.66	9.90
NEX	15C	34.6	0.01	50	124	903	0.0126	5.4	30	1.39	0.10	0.11	5.29	10.32	10.57
NEX	17C	32.8	0.01	50	124	1,112	0.0142	5.2	30	1.34	0.10	0.11	4.83	9.39	9.63
NEX	19C	23.2	0.01	50	124	1,160	0.0121	5.0	30	1.29	0.10	0.11	3.29	6.37	6.53
NEX	21C	29.7	0.01	50	124	1,549	0.0113	4.7	30	1.21	0.10	0.11	3.95	7.60	7.79
NEX	23C	35.4	0.01	50	124	1,993	0.0106	4.2	30	1.08	0.10	0.11	4.21	8.01	8.21
NEX	25C	28.1	0.01	50	124	1,765	0.0089	3.9	30	1.00	0.10	0.11	3.09	5.84	5.98
NEX	27C	35.0	0.01	50	124	1,922	0.0082	3.6	30	0.93	0.10	0.11	3.58	6.71	6.88
NEX	29C	34.0	0.01	50	124	1,457	0.0104	3.5	30	0.90	0.10	0.11	3.37	6.29	6.45
NEX	31C	29.3	0.01	50	124	1,251	0.0108	3.4	30	0.87	0.10	0.11	2.80	5.22	5.35
NEX	33C	35.6	0.01	50	124	2,107	0.0110	3.3	30	0.85	0.10	0.11	3.33	6.18	6.34
NEX	109C	21.4	0.01	50	124	2,279	0.0094	3.2	30	0.82	0.10	0.11	1.93	3.57	3.66
NEX	35D	16.7	0.01	50	134	1,299	0.0130	5.2	30	1.34	0.14	0.15	3.36	5.58	5.72
NEX	37D	29.0	0.01	50	124	1,308	0.0138	5.0	30	1.29	0.10	0.11	4.12	7.97	8.17
NEX	39D	29.9	0.01	50	124	1,530	0.0105	4.8	30	1.23	0.10	0.11	4.05	7.80	8.00

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	41D	21.4	0.01	50	124	1,185	0.0107	4.5	30	1.16	0.10	0.11	2.73	5.23	5.36
NEX	43D	26.1	0.01	50	124	1,524	0.0106	4.2	30	1.08	0.10	0.11	3.10	5.90	6.05
NEX	45D	30.2	0.01	50	134	1,697	0.0084	4.0	30	1.03	0.10	0.11	3.42	6.48	6.64
NEX	47D	30.2	0.01	50	134	1,239	0.0099	3.6	30	0.93	0.10	0.11	3.09	5.79	5.94
NEX	49D	39.0	0.01	50	134	1,500	0.0087	3.5	30	0.90	0.10	0.11	3.86	7.21	7.39
NEX	51D	31.8	0.01	50	134	1,258	0.0114	3.4	30	0.87	0.10	0.11	3.04	5.66	5.80
NEX	53D	23.0	0.01	50	134	1,118	0.0076	3.4	30	0.87	0.10	0.11	2.20	4.10	4.20
NEX	55D	14.6	0.01	50	124	1,256	0.0099	3.3	30	0.85	0.10	0.11	1.37	2.54	2.60
NEX	58E	12.6	0.01	50	124	1,440	0.0115	3.3	30	0.85	0.10	0.11	1.18	2.19	2.24
NEX	60E	28.7	0.01	50	124	3,334	0.0115	3.2	30	0.82	0.10	0.11	2.59	4.79	4.91
NEX	62F	16.5	0.01	50	124	1,673	0.0210	6.1	30	1.57	0.13	0.14	3.63	6.31	6.46
NEX	64F	24.0	0.01	50	124	955	0.0200	6.0	30	1.54	0.13	0.14	5.17	8.98	9.20
NEX	66F	33.9	0.01	50	124	1,251	0.0183	5.8	30	1.49	0.12	0.13	6.57	11.80	12.09
NEX	68F	29.6	0.01	50	124	1,122	0.0174	5.7	30	1.47	0.11	0.12	5.22	9.76	10.01
NEX	70F	25.9	0.01	50	124	874	0.0146	5.6	30	1.44	0.11	0.12	4.48	8.36	8.57
NEX	72F	26.7	0.01	50	124	907	0.0150	5.5	30	1.41	0.10	0.11	4.14	8.09	8.29
NEX	74F	29.9	0.01	50	124	876	0.0140	5.4	30	1.39	0.10	0.11	4.57	8.91	9.14
NEX	76F	39.5	0.01	50	124	987	0.0160	5.2	30	1.34	0.10	0.11	5.82	11.31	11.60
NEX	78F	38.8	0.01	50	124	900	0.0130	5.0	30	1.29	0.10	0.11	5.51	10.66	10.93
NEX	80F	39.6	0.01	50	124	831	0.0143	4.8	30	1.23	0.10	0.11	5.36	10.33	10.59
NEX	82F	39.9	0.01	50	124	829	0.0121	4.6	30	1.18	0.10	0.11	5.18	9.94	10.19
NEX	84F	39.8	0.01	50	124	853	0.0117	4.4	30	1.13	0.10	0.11	4.95	9.46	9.70
NEX	86F	39.1	0.01	50	124	1,094	0.0099	4.4	30	1.13	0.10	0.11	4.86	9.29	9.52
NEX	88F	22.9	0.01	50	124	845	0.0078	4.2	30	1.08	0.10	0.11	2.72	5.18	5.31
NEX	90F	36.2	0.01	50	124	1,675	0.0088	3.9	30	1.00	0.10	0.11	3.98	7.52	7.71
NEX	92F	23.7	0.01	50	124	1,298	0.0095	3.6	30	0.93	0.10	0.11	2.42	4.54	4.65
NEX	94F	17.9	0.01	50	124	1,020	0.0084	3.5	30	0.90	0.10	0.11	1.77	3.31	3.39
NEX	96F	22.5	0.01	50	124	1,387	0.0064	3.4	30	0.87	0.10	0.11	2.15	4.01	4.11
NEX	98F	21.4	0.01	50	124	1,222	0.0099	3.4	30	0.87	0.10	0.11	2.05	3.81	3.91
NEX	100F	16.7	0.01	50	124	1,247	0.0115	3.3	30	0.85	0.10	0.11	1.56	2.90	2.97
NEX	102F	23.0	0.01	50	124	3,287	0.0111	3.2	30	0.82	0.10	0.11	2.07	3.83	3.93
NEX	104G	18.2	0.01	50	134	1,898	0.0104	3.3	30	0.85	0.10	0.11	1.70	3.16	3.24
NEX	106G	39.9	0.01	50	134	2,469	0.0090	3.2	30	0.82	0.10	0.11	3.60	6.66	6.83
Outlet 4H															
NEX	1H	19.0	0.01	50	134	1,718	0.0090	3.3	30	0.85	0.10	0.11	1.78	3.30	3.39

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	3H	39.5	0.01	50	134	1,850	0.0112	3.2	30	0.82	0.10	0.11	3.56	10.96	11.23
Outlet 63IJ															
NEX	1I	10.8	0.01	50	124	1,416	0.0169	5.8	30	1.49	0.12	0.13	2.09	3.76	3.85
NEX	3I	18.1	0.01	50	124	929	0.0163	5.7	30	1.47	0.11	0.12	3.19	5.97	6.12
NEX	5I	12.8	0.01	50	124	459	0.0169	5.7	16	1.97	0.21	0.22	5.55	8.01	8.21
NEX	7I	16.5	0.01	50	134	616	0.0136	5.6	16	1.93	0.30	0.31	9.87	12.61	12.93
NEX	9I	25.9	0.01	50	134	879	0.0149	5.6	24	1.60	0.22	0.23	9.53	13.38	13.71
NEX	11I	26.8	0.01	50	134	968	0.0127	5.5	30	1.41	0.16	0.17	6.42	10.11	10.37
NEX	13I	31.1	0.01	50	134	1,180	0.0126	5.3	30	1.36	0.15	0.16	6.77	10.92	11.20
NEX	15I	37.7	0.01	50	134	1,443	0.0129	5.2	30	1.34	0.14	0.15	7.58	12.59	12.90
NEX	17I	27.6	0.01	50	134	900	0.0119	4.9	30	1.26	0.12	0.13	4.52	8.00	8.21
NEX	19I	25.5	0.01	50	134	838	0.0125	4.8	30	1.23	0.11	0.12	3.76	6.92	7.10
NEX	21I	37.2	0.01	50	134	1,165	0.0103	4.6	30	1.18	0.10	0.11	4.83	9.27	9.50
NEX	23I	34.3	0.01	50	134	1,034	0.0107	4.4	30	1.13	0.10	0.11	4.26	8.15	8.35
NEX	25I	38.0	0.01	50	134	1,049	0.0101	4.2	30	1.08	0.10	0.11	4.51	8.59	8.80
NEX	27I	39.5	0.01	50	134	2,077	0.0093	3.8	30	0.98	0.10	0.11	4.26	8.03	8.23
NEX	29I	29.4	0.01	50	134	1,661	0.0096	3.5	30	0.90	0.10	0.11	2.91	5.44	5.57
NEX	31I	39.6	0.01	50	134	1,306	0.0098	3.4	30	0.87	0.10	0.11	3.79	7.06	7.23
NEX	33I	39.3	0.01	50	134	1,279	0.0066	3.4	30	0.87	0.10	0.11	3.76	7.00	7.18
NEX	35I	26.7	0.01	50	134	878	0.0114	3.3	30	0.85	0.10	0.11	2.50	4.64	4.76
NEX	37I	37.9	0.01	50	134	1,809	0.0076	3.2	30	0.82	0.10	0.11	3.42	6.33	6.49
NEX	39J	27.8	0.01	50	134	1,645	0.0119	5.2	30	1.34	0.14	0.15	5.59	9.28	9.51
NEX	41J	18.8	0.01	50	134	760	0.0129	5.0	30	1.29	0.13	0.14	3.40	5.81	5.96
NEX	43J	32.3	0.01	50	134	1,022	0.0128	4.9	30	1.26	0.12	0.13	5.29	9.37	9.60
NEX	45J	32.3	0.01	50	134	1,126	0.0115	4.7	30	1.21	0.10	0.11	4.30	8.27	8.48
NEX	47J	27.3	0.01	50	134	1,116	0.0106	4.4	30	1.13	0.10	0.11	3.39	6.48	6.65
NEX	49J	22.5	0.01	50	134	1,019	0.0104	4.2	30	1.08	0.10	0.11	2.67	5.08	5.21
NEX	51J	18.6	0.01	50	134	1,085	0.0098	3.8	30	0.98	0.10	0.11	2.01	3.78	3.88
NEX	53J	35.3	0.01	50	134	1,400	0.0103	3.8	30	0.98	0.10	0.11	3.81	7.18	7.36
NEX	55J	40.0	0.01	50	134	1,510	0.0079	3.6	30	0.93	0.10	0.11	4.09	7.67	7.86
NEX	57J	40.0	0.01	50	134	1,410	0.0090	3.4	30	0.87	0.10	0.11	3.83	7.13	7.31
NEX	59J	37.3	0.01	50	134	1,434	0.0091	3.3	30	0.85	0.10	0.11	3.49	6.48	6.64
NEX	61J	28.5	0.01	50	134	2,082	0.0073	3.2	30	0.82	0.10	0.11	2.57	4.76	4.88
Outlet 184KU															
NEX	1K	464.4	0.01	50	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	3K	21.5	0.01	50	124	571	0.0305	6.4	12	2.53	0.30	0.31	16.86	21.76	22.31
NEX	5K	39.6	0.01	50	124	1,014	0.0204	6.3	30	1.62	0.14	0.15	9.62	16.21	16.62
NEX	7K	39.6	0.01	50	124	1,054	0.0183	6.2	30	1.59	0.14	0.15	9.44	15.89	16.28
NEX	9K	30.7	0.01	50	134	957	0.0161	6.0	21	1.82	0.28	0.29	16.20	21.10	21.63
NEX	11K	33.2	0.01	50	134	1,511	0.0147	5.9	30	1.52	0.20	0.21	10.60	15.36	15.75
NEX	53B	26.8	0.01	50	134	709	0.0130	5.6	19	1.78	0.27	0.28	13.36	17.58	18.02
NEX	24K	30.9	0.01	50	134	778	0.0132	5.6	21	1.70	0.25	0.26	13.66	18.40	18.86
NEX	26K	32.3	0.01	50	134	881	0.0107	5.6	29	1.46	0.18	0.19	8.96	13.49	13.83
NEX	28K	28.9	0.01	50	134	934	0.0105	5.5	30	1.41	0.16	0.17	6.93	10.91	11.18
NEX	30K	21.2	0.01	50	134	853	0.0132	5.4	30	1.39	0.16	0.17	5.01	7.88	8.08
NEX	64K	31.4	0.01	50	134	784	0.0105	5.5	27	1.49	0.19	0.20	9.36	13.81	14.16
NEX	66K	37.2	0.01	50	124	770	0.0108	5.4	30	1.39	0.10	0.11	5.69	11.09	11.37
NEX	68K	34.7	0.01	50	124	992	0.0100	5.2	30	1.34	0.10	0.11	5.11	9.94	10.18
NEX	70K	19.1	0.01	50	124	975	0.0088	5.0	30	1.29	0.10	0.11	2.71	5.25	5.38
NEX	72K	10.9	0.01	50	124	715	0.0070	4.9	30	1.26	0.10	0.11	1.51	2.92	2.99
NEX	74K	24.2	0.01	50	124	1,168	0.0128	4.8	30	1.23	0.10	0.11	3.27	6.31	6.46
NEX	106K	32.1	0.01	50	124	913	0.0110	4.7	30	1.21	0.10	0.11	4.27	8.22	8.43
NEX	108K	37.7	0.01	50	124	1,081	0.0100	4.6	30	1.18	0.10	0.11	4.89	9.39	9.63
NEX	110K	39.4	0.01	50	124	1,044	0.0124	4.4	30	1.13	0.10	0.11	4.90	9.36	9.60
NEX	112K	39.8	0.01	50	124	1,121	0.0111	4.2	30	1.08	0.10	0.11	4.73	9.00	9.22
NEX	114K	40.0	0.01	50	124	960	0.0095	4.0	30	1.03	0.10	0.11	4.53	8.58	8.80
NEX	116K	39.8	0.01	50	124	919	0.0099	3.8	30	0.98	0.10	0.11	4.29	8.09	8.29
NEX	118K	39.8	0.01	50	134	835	0.0198	3.6	30	0.93	0.10	0.11	4.07	7.63	7.82
NEX	120K	22.4	0.01	50	134	1,042	0.0077	3.5	30	0.90	0.10	0.11	2.22	4.15	4.25
NEX	15B	39.1	0.01	50	134	1,212	0.0083	3.5	30	0.90	0.10	0.11	3.87	7.23	7.41
NEX	153K	38.8	0.01	50	134	2,066	0.0097	3.4	30	0.87	0.10	0.11	3.71	6.91	7.08
NEX	155K	27.3	0.01	50	134	1,710	0.0088	3.3	30	0.85	0.10	0.11	2.55	4.74	4.86
NEX	157K	22.1	0.01	50	134	1,697	0.0087	3.2	30	0.82	0.10	0.11	1.99	3.69	3.78
NEX	6B	39.7	0.01	50	134	1,115	0.0092	3.2	30	0.82	0.10	0.11	3.58	6.63	6.79
NEX	175K	28.5	0.01	50	134	1,834	0.0081	3.2	30	0.82	0.10	0.11	2.57	4.76	4.88
NEX	13L	28.8	0.01	50	134	659	0.0212	6.6	12	2.61	0.41	0.41	30.82	36.64	37.56
NEX	15L	24.8	0.01	50	134	724	0.0209	6.5	12	2.57	0.40	0.41	26.13	31.05	31.83
NEX	17L	25.3	0.01	50	134	1,152	0.0170	6.4	21	1.95	0.30	0.31	15.29	19.54	20.03
NEX	19L	21.3	0.01	50	134	1,374	0.0164	6.2	29	1.62	0.23	0.24	8.28	11.45	11.74
NEX	21L	17.9	0.01	50	134	1,523	0.0156	6.0	30	1.54	0.20	0.21	5.79	8.40	8.61

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	32M	935.0	0.9	50	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	50	134	1,319	0.0217	6.6	21	2.01	0.31	0.32	20.39	25.83	26.48
NEX	36M	29.5	0.01	50	134	1,114	0.0194	6.4	20	1.99	0.31	0.32	18.79	23.80	24.39
NEX	38M	27.9	0.01	50	134	1,014	0.0181	6.2	20	1.93	0.30	0.31	16.69	21.33	21.86
NEX	40M	39.2	0.01	50	134	1,409	0.0155	6.1	30	1.57	0.21	0.22	13.54	19.31	19.79
NEX	67B	23.0	0.01	50	134	885	0.0208	6.0	18	1.96	0.30	0.31	13.97	17.86	18.31
NEX	53M	18.1	0.01	50	134	1,259	0.0092	5.8	30	1.49	0.19	0.20	5.39	7.96	8.16
NEX	65B	24.1	0.01	50	134	934	0.0115	5.7	29	1.49	0.19	0.20	7.18	10.60	10.86
NEX	60M	21.5	0.01	50	134	1,075	0.0132	5.6	30	1.44	0.17	0.18	5.57	8.57	8.79
NEX	42N	959.0	0.01	50	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	50	134	684	0.0517	6.6	10	2.84	0.44	0.44	49.36	57.72	59.16
NEX	46N	38.9	0.01	50	134	702	0.0282	6.5	12	2.57	0.40	0.41	40.99	48.71	49.93
NEX	48N	37.9	0.01	50	134	938	0.0231	6.4	15	2.28	0.36	0.37	31.97	38.96	39.93
NEX	50N	32.3	0.01	50	134	1,933	0.0092	6.2	30	1.59	0.22	0.23	11.81	16.57	16.99
NEX	55O	35.7	0.01	50	134	2,369	0.0122	6.2	30	1.59	0.22	0.23	13.06	18.32	18.78
NEX	57O	19.0	0.01	50	134	1,288	0.0125	6.1	30	1.57	0.21	0.22	6.56	9.36	9.59
NEX	76P	199.8	0.01	50	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	50	124	1,220	0.0087	6.6	30	1.70	0.16	0.17	7.66	12.22	12.53
NEX	80P	39.7	0.01	50	134	2,419	0.0185	6.4	30	1.64	0.23	0.24	15.63	21.62	22.16
NEX	88B	40.0	0.01	50	134	949	0.0200	6.2	18	2.03	0.31	0.32	25.98	32.93	33.75
NEX	87P	40.0	0.01	50	134	856	0.0115	6.4	17	2.15	0.33	0.34	29.24	36.45	37.37
NEX	89P	40.0	0.01	50	134	1,066	0.0130	5.9	27	1.59	0.22	0.23	14.63	20.53	21.04
NEX	91P	40.0	0.01	50	134	1,323	0.0100	5.8	30	1.49	0.19	0.20	11.92	17.59	18.03
NEX	93P	38.5	0.01	50	134	1,231	0.0098	5.6	30	1.44	0.17	0.18	9.98	15.35	15.74
NEX	95P	32.9	0.01	50	124	853	0.0100	5.5	30	1.41	0.10	0.11	5.10	9.96	10.21
NEX	97P	32.3	0.01	50	124	903	0.0083	5.3	30	1.36	0.10	0.11	4.83	9.40	9.64
NEX	99P	36.0	0.01	50	124	1,173	0.0077	5.1	30	1.31	0.10	0.11	5.19	10.06	10.31
NEX	101P	22.9	0.01	50	124	832	0.0121	5.0	30	1.29	0.10	0.11	3.25	6.29	6.45
NEX	103P	12.6	0.01	50	124	949	0.0105	4.8	30	1.23	0.10	0.11	1.70	3.28	3.36
NEX	82Q	40.0	0.01	50	134	1,582	0.0272	6.6	24	1.88	0.29	0.30	22.56	29.10	29.82
NEX	84Q	40.0	0.01	50	134	1,847	0.0211	6.4	30	1.64	0.23	0.24	15.74	21.78	22.32
NEX	122R	21.6	0.01	50	134	1,940	0.0123	5.4	30	1.39	0.16	0.17	5.10	8.03	8.23
NEX	124R	32.5	0.01	50	134	1,189	0.0132	5.3	30	1.36	0.15	0.16	7.07	11.41	11.70
NEX	126R	23.9	0.01	50	134	803	0.0128	5.2	30	1.34	0.14	0.15	4.80	7.97	8.17
NEX	128R	28.8	0.01	50	134	966	0.0104	5.3	30	1.36	0.15	0.16	6.27	10.12	10.37

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	130R	29.3	0.01	50	134	795	0.0096	5.0	30	1.29	0.13	0.14	5.29	9.05	9.28
NEX	132R	27.5	0.01	50	134	759	0.0105	4.9	30	1.26	0.12	0.13	4.50	7.97	8.17
NEX	134R	27.3	0.01	50	134	740	0.0098	4.8	30	1.23	0.11	0.12	4.03	7.42	7.60
NEX	136R	29.4	0.01	50	134	849	0.0100	4.7	30	1.21	0.10	0.11	3.91	7.53	7.72
NEX	138R	36.9	0.01	50	134	960	0.0102	4.6	30	1.18	0.10	0.11	4.79	9.20	9.42
NEX	140R	27.6	0.01	50	134	705	0.0125	4.4	30	1.13	0.10	0.11	3.43	6.56	6.72
NEX	142R	36.0	0.01	50	134	966	0.0104	4.2	30	1.08	0.10	0.11	4.28	8.14	8.35
NEX	144R	39.6	0.01	50	134	1,078	0.0094	3.9	30	1.00	0.10	0.11	4.36	8.23	8.44
NEX	146R	27.4	0.01	50	134	693	0.0144	3.6	30	0.93	0.10	0.11	2.80	5.25	5.38
NEX	148R	27.6	0.01	50	134	1,266	0.0097	3.6	30	0.93	0.10	0.11	2.82	5.29	5.42
NEX	150R	20.7	0.01	50	134	1,379	0.0096	3.5	30	0.90	0.10	0.11	2.05	3.83	3.93
NEX	17B	39.1	0.01	50	134	1,212	0.0083	3.4	30	0.87	0.10	0.11	3.74	6.97	7.14
NEX	159S	39.3	0.01	50	134	2,302	0.0110	3.3	30	0.85	0.10	0.11	3.67	6.82	6.99
NEX	161S	36.7	0.01	50	134	2,012	0.0121	3.2	30	0.82	0.10	0.11	3.31	6.13	6.28
NEX	163T	16.1	0.01	50	134	1,839	0.0088	3.4	30	0.87	0.10	0.11	1.54	2.87	2.94
NEX	165T	28.5	0.01	50	134	887	0.0119	3.4	30	0.87	0.10	0.11	2.73	5.08	5.21
NEX	167T	38.0	0.01	50	134	1,078	0.0088	3.2	30	0.82	0.10	0.11	3.43	6.34	6.50
NEX	169T	39.8	0.01	50	134	1,337	0.0120	3.2	30	0.82	0.10	0.11	3.59	6.64	6.81
NEX	171T	29.2	0.01	50	134	1,813	0.0098	3.2	30	0.82	0.10	0.11	2.63	4.87	4.99
NEX	177U	29.4	0.01	50	134	3,079	0.0082	3.2	30	0.82	0.10	0.11	2.65	4.91	5.03
NEX	178U	29.1	0.01	50	134	2,590	0.0098	3.2	30	0.82	0.10	0.11	2.62	4.85	4.97
NEX	180U	31.8	0.01	50	134	2,207	0.0112	3.2	30	0.82	0.10	0.11	2.87	5.31	5.44
NEX	182U	21.3	0.01	50	134	2,448	0.0081	3.2	30	0.82	0.10	0.11	1.92	3.55	3.64
Outlet 8V															
NEX	1V	23.8	0.01	50	134	1,412	0.0103	3.2	30	0.82	0.10	0.11	2.15	3.98	4.07
NEX	3V	39.4	0.01	50	134	1,046	0.0115	3.2	30	0.82	0.10	0.11	3.55	6.57	6.74
NEX	5V	39.9	0.01	50	134	892	0.0100	3.2	30	0.82	0.10	0.11	3.60	6.66	6.83
NEX	7V	40.0	0.01	50	134	964	0.0100	3.2	30	0.82	0.10	0.11	3.61	6.68	6.85
Outlet 73WZ															
NEX	1W	24.1	0.01	50	124	1,848	0.0105	5.2	30	1.34	0.10	0.11	3.55	6.90	7.07
NEX	3W	22.3	0.01	50	124	1,007	0.0107	5.0	30	1.29	0.10	0.11	3.16	6.12	6.28
NEX	5W	26.9	0.01	50	124	1,111	0.0099	4.8	30	1.23	0.10	0.11	3.64	7.02	7.19
NEX	7W	24.7	0.01	50	124	1,118	0.0071	4.6	30	1.18	0.10	0.11	3.21	6.16	6.31
NEX	9W	35.1	0.01	50	124	1,301	0.0100	4.4	30	1.13	0.10	0.11	4.36	8.34	8.55
NEX	11W	24.8	0.01	50	124	779	0.0075	4.3	30	1.11	0.10	0.11	3.03	5.78	5.92

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	13W	36.2	0.01	50	124	915	0.0114	4.2	30	1.08	0.10	0.11	4.30	8.18	8.39
NEX	15W	33.0	0.01	50	124	796	0.0139	4.0	30	1.03	0.10	0.11	3.74	7.08	7.26
NEX	17W	39.5	0.01	50	124	930	0.0120	3.8	30	0.98	0.10	0.11	4.26	8.03	8.23
NEX	19W	32.8	0.01	50	124	774	0.0094	3.6	30	0.93	0.10	0.11	3.36	6.29	6.45
NEX	21W	35.4	0.01	50	124	1,066	0.0082	3.6	30	0.93	0.10	0.11	3.62	6.79	6.96
NEX	23W	19.1	0.01	50	134	860	0.0063	3.5	30	0.90	0.10	0.11	1.89	3.53	3.62
NEX	25W	11.4	0.01	50	134	684	0.0073	3.5	30	0.90	0.10	0.11	1.13	2.11	2.16
NEX	27W	22.7	0.01	50	134	1,949	0.0103	3.4	30	0.87	0.10	0.11	2.17	4.04	4.14
NEX	4B	15.1	0.01	50	134	642	0.0098	3.4	30	0.87	0.10	0.11	1.45	2.69	2.76
NEX	38W	19.2	0.01	50	134	1,430	0.0096	3.3	30	0.85	0.10	0.11	1.80	3.34	3.42
NEX	2B	27.6	0.01	50	134	1,623	0.0080	3.2	30	0.82	0.10	0.11	2.49	4.61	4.72
NEX	29X	7.3	0.01	50	124	1,088	0.0076	3.6	30	0.93	0.10	0.11	0.75	1.40	1.44
NEX	31X	23.1	0.01	50	124	882	0.0135	3.5	30	0.90	0.10	0.11	2.29	4.28	4.38
NEX	33X	13.0	0.01	50	124	429	0.0129	3.4	30	0.87	0.10	0.11	1.24	2.31	2.37
NEX	35X	18.5	0.01	50	134	1,115	0.0128	3.4	30	0.87	0.10	0.11	1.77	3.30	3.38
NEX	40Y	6.4	0.01	50	124	970	0.0089	3.6	30	0.93	0.10	0.11	0.65	1.22	1.25
NEX	42Y	11.2	0.01	50	124	831	0.0114	3.6	30	0.93	0.10	0.11	1.15	2.15	2.21
NEX	44Y	15.6	0.01	50	124	883	0.0107	3.5	30	0.90	0.10	0.11	1.54	2.88	2.95
NEX	46Y	9.5	0.01	50	124	390	0.0168	3.4	30	0.87	0.10	0.11	0.91	1.69	1.74
NEX	48Y	13.1	0.01	50	134	658	0.0167	3.3	30	0.85	0.10	0.11	1.22	2.27	2.33
NEX	50Y	24.4	0.01	50	134	1,416	0.0105	3.3	30	0.85	0.10	0.11	2.28	4.24	4.34
NEX	53Z	12.8	0.01	50	124	1,273	0.0132	4.0	30	1.03	0.10	0.11	1.45	2.75	2.82
NEX	55Z	24.9	0.01	50	124	1,086	0.0117	3.9	30	1.00	0.10	0.11	2.74	5.17	5.30
NEX	57Z	25.8	0.01	50	124	863	0.0135	3.7	30	0.95	0.10	0.11	2.70	5.07	5.20
NEX	59Z	30.1	0.01	50	124	922	0.0123	3.6	30	0.93	0.10	0.11	3.08	5.77	5.92
NEX	61Z	28.0	0.01	50	124	907	0.0102	3.5	30	0.90	0.10	0.11	2.77	5.18	5.31
NEX	63Z	32.7	0.01	50	124	1,048	0.0113	3.5	30	0.90	0.10	0.11	3.24	6.05	6.20
NEX	65Z	25.7	0.01	50	134	1,003	0.0124	3.4	30	0.87	0.10	0.11	2.46	4.58	4.69
NEX	67Z	9.1	0.01	50	134	399	0.0147	3.4	30	0.87	0.10	0.11	0.87	1.62	1.66
NEX	69Z	24.4	0.01	50	134	1,072	0.0128	3.3	30	0.85	0.10	0.11	2.28	4.24	4.34
NEX	71Z	27.0	0.01	50	134	1,351	0.0092	3.2	30	0.82	0.10	0.11	2.44	4.51	4.62
Outlet 110A															
NEX	101A	8.2	0.01	50	124	1,080	0.0117	4.0	30	1.03	0.10	0.11	0.93	1.76	1.80
NEX	103A	17.4	0.01	50	124	846	0.0126	3.8	30	0.98	0.10	0.11	1.88	3.54	3.63
NEX	105A	18.4	0.01	50	124	782	0.0142	3.7	30	0.95	0.10	0.11	1.92	3.61	3.70

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	107A	24.3	0.01	50	120	822	0.0118	3.6	25	1.01	0.33	0.34	8.34	10.12	10.38
NEX	109A	21.0	0.01	50	120	717	0.0102	3.6	23	1.05	0.34	0.35	7.72	9.31	9.54
Outlet 165B															
NEX	13B	30.0	0.01	50	124	1,041	0.0084	5.6	30	1.44	0.11	0.12	5.18	9.67	9.92
NEX	14B	22.1	0.01	50	134	2,097	0.0097	5.7	30	1.47	0.18	0.19	6.17	9.29	9.53
NEX	20B	38.7	0.01	50	124	1,100	0.0114	5.8	30	1.49	0.12	0.13	7.50	13.47	13.81
NEX	21B	11.2	0.01	50	134	976	0.0116	5.8	29	1.51	0.20	0.21	3.55	5.14	5.27
NEX	28B	24.5	0.01	50	134	1,210	0.0123	6.2	27	1.67	0.24	0.25	10.23	13.96	14.31
NEX	29B	7.6	0.01	50	124	918	0.0157	6.2	30	1.59	0.14	0.15	1.81	3.05	3.12
NEX	35B	15.5	0.01	50	124	1,532	0.0248	6.5	30	1.67	0.15	0.16	4.14	6.78	6.95
NEX	36B	29.0	0.01	50	124	1,706	0.0265	6.6	30	1.70	0.16	0.17	8.38	13.37	13.70
NEX	100B	67.1	0.01	50	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	50	124	1,058	0.0457	6.8	18	2.22	0.25	0.26	15.01	20.47	20.98
NEX	104B	24.8	0.01	50	124	1,470	0.0295	6.6	30	1.70	0.16	0.17	7.17	11.44	11.72
NEX	106B	18.1	0.01	50	124	959	0.0182	6.4	28	1.70	0.16	0.17	5.23	8.34	8.55
NEX	118B	34.1	0.01	50	124	944	0.0135	6.0	30	1.54	0.13	0.14	7.35	12.76	13.08
NEX	142B	27.0	0.01	50	124	872	0.0100	5.5	30	1.41	0.10	0.11	4.19	8.18	8.38
NEX	144B	24.7	0.01	50	124	1,127	0.0100	5.3	30	1.36	0.10	0.11	3.70	7.20	7.38
NEX	146B	26.0	0.01	50	124	1,083	0.0087	5.1	30	1.31	0.10	0.11	3.75	7.27	7.45
NEX	148B	22.6	0.01	50	124	872	0.0064	4.9	30	1.26	0.10	0.11	3.13	6.05	6.20
NEX	150B	28.5	0.01	50	124	1,358	0.0100	4.6	30	1.18	0.10	0.11	3.70	7.10	7.28
NEX	152B	23.4	0.01	50	124	1,217	0.0094	4.4	30	1.13	0.10	0.11	2.91	5.56	5.70
NEX	154B	20.9	0.01	50	124	807	0.0117	4.2	30	1.08	0.10	0.11	2.48	4.72	4.84
NEX	156B	26.1	0.01	50	124	966	0.0109	4.1	30	1.05	0.10	0.11	3.01	5.72	5.86
NEX	158B	26.4	0.01	50	124	973	0.0103	4.0	30	1.03	0.10	0.11	2.99	5.66	5.81
NEX	160B	29.7	0.01	50	124	1,044	0.0088	3.9	30	1.00	0.10	0.11	3.27	6.17	6.33
NEX	162B	27.9	0.01	50	124	1,101	0.0100	3.8	30	0.98	0.10	0.11	3.01	5.67	5.81
NEX	164B	25.2	0.01	50	124	1,034	0.0097	3.8	30	0.98	0.10	0.11	2.72	5.12	5.25
NEX	108C	959.0	0.01	50	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	50	124	1,568	0.0397	6.7	30	1.72	0.16	0.17	11.61	18.54	19.00
NEX	115C	12.0	0.01	50	124	949	0.0196	6.4	26	1.76	0.17	0.18	3.80	5.93	6.07
NEX	112D	37.7	0.01	50	124	2,150	0.0278	6.7	30	1.72	0.16	0.17	11.02	17.60	18.04
NEX	120E	31.1	0.01	50	124	2,049	0.0310	6.6	30	1.70	0.16	0.17	8.99	14.34	14.70
NEX	122E	18.9	0.01	50	124	866	0.0304	6.5	19	2.07	0.23	0.24	9.39	13.14	13.47
NEX	124E	37.4	0.01	50	134	1,753	0.0175	6.3	30	1.62	0.23	0.24	14.54	20.11	20.61

NEXTLIGHT
AV SOLAR RANCH ONE
EXISTING CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	126E	21.3	0.01	50	134	919	0.0177	6.1	19	1.94	0.30	0.31	12.81	16.37	16.78
NEX	128E	16.6	0.01	50	134	904	0.0144	6.0	20	1.87	0.29	0.30	9.31	12.01	12.31
NEX	131F	13.6	0.01	50	134	906	0.0318	6.5	13	2.48	0.39	0.40	13.49	16.12	16.53
NEX	133F	26.1	0.01	50	134	1,224	0.0214	6.4	21	1.95	0.30	0.31	15.78	20.17	20.67
NEX	135F	37.2	0.01	50	134	1,787	0.0163	6.2	30	1.59	0.22	0.23	13.60	19.09	19.56
NEX	137F	24.5	0.01	50	134	979	0.0194	6.0	20	1.87	0.29	0.30	13.74	17.72	18.16
NEX	139F	14.3	0.01	50	134	790	0.0144	5.9	18	1.93	0.30	0.31	8.56	10.94	11.21

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	2	124	2,398	0.0092	1.6	30	0.42	0.10	0.11	1.85	3.17	3.25
NEX	3A	39.8	0.01	2	124	1,498	0.0097	1.5	30	0.38	0.10	0.11	1.66	2.82	2.89
NEX	5A	38.3	0.01	2	124	1,253	0.0091	1.4	30	0.36	0.10	0.11	1.52	2.56	2.62
NEX	7A	32.4	0.01	2	124	1,114	0.0101	1.4	30	0.35	0.10	0.11	1.25	2.10	2.15
NEX	9A	27.7	0.01	2	124	1,242	0.0087	1.3	30	0.34	0.10	0.11	1.04	1.74	1.78
NEX	11A	33.9	0.07	2	124	1,469	0.0099	1.3	30	0.34	0.10	0.16	1.84	2.64	2.71
NEX	13A	38.9	0.10	2	134	1,177	0.0087	1.3	30	0.33	0.10	0.18	2.31	3.18	3.26
NEX	15A	38.3	0.10	2	134	994	0.0104	1.2	30	0.32	0.10	0.18	2.21	3.03	3.10
Outlet 6B															
NEX	1B	22.1	0.10	2	124	2,664	0.0093	1.3	30	0.34	0.10	0.18	1.35	1.86	1.91
NEX	3B	39.9	0.10	2	124	1,443	0.0124	1.2	30	0.32	0.10	0.18	2.30	3.15	3.23
NEX	5B	39.0	0.04	2	124	732	0.0103	1.2	30	0.32	0.10	0.13	1.62	2.50	2.57
Outlet 110CG															
NEX	1C	17.8	0.01	2	124	1,591	0.0201	2.4	30	0.62	0.10	0.11	1.21	2.18	2.23
NEX	3C	15.5	0.01	2	124	1,045	0.0180	2.3	30	0.60	0.10	0.11	1.02	1.83	1.87
NEX	5C	29.5	0.01	2	124	1,347	0.0173	2.2	30	0.58	0.10	0.11	1.88	3.35	3.44
NEX	7C	25.1	0.01	2	124	1,037	0.0175	2.2	30	0.57	0.10	0.11	1.57	2.80	2.87
NEX	9C	20.7	0.01	2	124	733	0.0164	2.2	30	0.56	0.10	0.11	1.28	2.27	2.32
NEX	11C	25.8	0.01	2	124	713	0.0162	2.1	30	0.55	0.10	0.11	1.56	2.76	2.83
NEX	13C	31.9	0.01	2	124	939	0.0156	2.1	30	0.55	0.10	0.11	1.93	3.42	3.50
NEX	15C	34.6	0.01	2	124	903	0.0126	2.1	30	0.54	0.10	0.11	2.06	3.64	3.73
NEX	17C	32.8	0.01	2	124	1,112	0.0142	2.0	30	0.52	0.10	0.11	1.88	3.31	3.39
NEX	19C	23.2	0.01	2	124	1,160	0.0121	1.9	30	0.50	0.10	0.11	1.28	2.24	2.30
NEX	21C	29.7	0.01	2	124	1,549	0.0113	1.8	30	0.47	0.10	0.11	1.54	2.68	2.74
NEX	23C	35.4	0.01	2	124	1,993	0.0106	1.6	30	0.42	0.10	0.11	1.64	2.81	2.88
NEX	25C	28.1	0.01	2	124	1,765	0.0089	1.5	30	0.39	0.10	0.11	1.21	2.05	2.11
NEX	27C	35.0	0.01	2	124	1,922	0.0082	1.4	30	0.36	0.10	0.11	1.39	2.34	2.40
NEX	29C	34.0	0.01	2	124	1,457	0.0104	1.4	30	0.35	0.10	0.11	1.31	2.20	2.25
NEX	31C	29.3	0.01	2	124	1,251	0.0108	1.3	30	0.34	0.10	0.11	1.10	1.84	1.88
NEX	33C	35.6	0.10	2	124	2,107	0.0110	1.3	30	0.33	0.10	0.18	2.11	2.90	2.98
NEX	109C	21.4	0.10	2	124	2,279	0.0094	1.2	30	0.32	0.10	0.18	1.23	1.69	1.73
NEX	35D	16.7	0.01	2	134	1,299	0.0130	2.0	30	0.52	0.10	0.11	0.96	1.69	1.73
NEX	37D	29.0	0.01	2	124	1,308	0.0138	1.9	30	0.50	0.10	0.11	1.60	2.80	2.87
NEX	39D	29.9	0.01	2	124	1,530	0.0105	1.9	30	0.48	0.10	0.11	1.58	2.75	2.82

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	41D	21.4	0.01	2	124	1,185	0.0107	1.7	30	0.45	0.10	0.11	1.06	1.83	1.88
NEX	43D	26.1	0.01	2	124	1,524	0.0106	1.6	30	0.42	0.10	0.11	1.21	2.07	2.13
NEX	45D	30.2	0.01	2	134	1,697	0.0084	1.5	30	0.40	0.10	0.11	1.33	2.27	2.32
NEX	47D	30.2	0.01	2	134	1,239	0.0099	1.4	30	0.36	0.10	0.11	1.20	2.02	2.07
NEX	49D	39.0	0.01	2	134	1,500	0.0087	1.4	30	0.35	0.10	0.11	1.50	2.52	2.58
NEX	51D	31.8	0.05	2	134	1,258	0.0114	1.3	30	0.34	0.10	0.14	1.51	2.28	2.34
NEX	53D	23.0	0.10	2	134	1,118	0.0076	1.3	30	0.34	0.10	0.18	1.41	1.94	1.99
NEX	55D	14.6	0.10	2	124	1,256	0.0099	1.3	30	0.33	0.10	0.18	0.87	1.19	1.22
NEX	58E	12.6	0.10	2	124	1,440	0.0115	1.3	30	0.33	0.10	0.18	0.75	1.03	1.06
NEX	60E	28.7	0.10	2	124	3,334	0.0115	1.2	30	0.32	0.10	0.18	1.65	2.26	2.32
NEX	62F	16.5	0.01	2	124	1,673	0.0210	2.4	30	0.61	0.10	0.11	1.11	1.99	2.04
NEX	64F	24.0	0.01	2	124	955	0.0200	2.3	30	0.60	0.10	0.11	1.58	2.83	2.90
NEX	66F	33.9	0.01	2	124	1,251	0.0183	2.2	30	0.58	0.10	0.11	2.16	3.85	3.95
NEX	68F	29.6	0.01	2	124	1,122	0.0174	2.2	30	0.57	0.10	0.11	1.86	3.30	3.39
NEX	70F	25.9	0.01	2	124	874	0.0146	2.2	30	0.56	0.10	0.11	1.60	2.84	2.91
NEX	72F	26.7	0.01	2	124	907	0.0150	2.1	30	0.55	0.10	0.11	1.62	2.87	2.94
NEX	74F	29.9	0.01	2	124	876	0.0140	2.1	30	0.54	0.10	0.11	1.78	3.14	3.22
NEX	76F	39.5	0.01	2	124	987	0.0160	2.0	30	0.52	0.10	0.11	2.26	3.98	4.08
NEX	78F	38.8	0.01	2	124	900	0.0130	1.9	30	0.50	0.10	0.11	2.13	3.74	3.83
NEX	80F	39.6	0.01	2	124	831	0.0143	1.9	30	0.48	0.10	0.11	2.09	3.65	3.74
NEX	82F	39.9	0.01	2	124	829	0.0121	1.8	30	0.46	0.10	0.11	2.02	3.50	3.59
NEX	84F	39.8	0.01	2	124	853	0.0117	1.7	30	0.44	0.10	0.11	1.93	3.33	3.41
NEX	86F	39.1	0.01	2	124	1,094	0.0099	1.7	30	0.44	0.10	0.11	1.89	3.26	3.35
NEX	88F	22.9	0.01	2	124	845	0.0078	1.6	30	0.42	0.10	0.11	1.06	1.82	1.86
NEX	90F	36.2	0.01	2	124	1,675	0.0088	1.5	30	0.39	0.10	0.11	1.55	2.64	2.70
NEX	92F	23.7	0.01	2	124	1,298	0.0095	1.4	30	0.36	0.10	0.11	0.94	1.58	1.62
NEX	94F	17.9	0.01	2	124	1,020	0.0084	1.4	30	0.35	0.10	0.11	0.69	1.16	1.19
NEX	96F	22.5	0.01	2	124	1,387	0.0064	1.3	30	0.34	0.10	0.11	0.84	1.41	1.44
NEX	98F	21.4	0.01	2	124	1,222	0.0099	1.3	30	0.34	0.10	0.11	0.80	1.34	1.37
NEX	100F	16.7	0.10	2	124	1,247	0.0115	1.3	30	0.33	0.10	0.18	0.99	1.36	1.40
NEX	102F	23.0	0.10	2	124	3,287	0.0111	1.2	30	0.32	0.10	0.18	1.32	1.81	1.86
NEX	104G	18.2	0.10	2	134	1,898	0.0104	1.3	30	0.33	0.10	0.18	1.08	1.49	1.52
NEX	106G	39.9	0.07	2	134	2,469	0.0090	1.2	30	0.32	0.10	0.16	2.04	2.91	2.99
Outlet 4H															
NEX	1H	19.0	0.10	2	134	1,718	0.0090	1.3	30	0.33	0.10	0.18	1.13	1.55	1.59

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	3H	39.5	0.03	2	134	1,850	0.0112	1.2	30	0.32	0.10	0.12	1.52	2.43	2.49
Outlet 63IJ															
NEX	1I	10.8	0.01	2	124	1,416	0.0169	2.2	30	0.58	0.10	0.11	0.69	1.23	1.26
NEX	3I	18.1	0.01	2	124	929	0.0163	2.2	30	0.57	0.10	0.11	1.13	2.01	2.06
NEX	5I	12.8	0.01	2	124	459	0.0169	2.2	30	0.57	0.10	0.11	0.80	1.43	1.46
NEX	7I	16.5	0.01	2	134	616	0.0136	2.2	30	0.56	0.10	0.11	1.02	1.81	1.85
NEX	9I	25.9	0.01	2	134	879	0.0149	2.2	30	0.56	0.10	0.11	1.60	2.84	2.91
NEX	11I	26.8	0.01	2	134	968	0.0127	2.1	30	0.55	0.10	0.11	1.62	2.87	2.94
NEX	13I	31.1	0.01	2	134	1,180	0.0126	2.1	30	0.53	0.10	0.11	1.81	3.20	3.28
NEX	15I	37.7	0.01	2	134	1,443	0.0129	2.0	30	0.52	0.10	0.11	2.16	3.80	3.89
NEX	17I	27.6	0.01	2	134	900	0.0119	1.9	30	0.49	0.10	0.11	1.49	2.60	2.67
NEX	19I	25.5	0.01	2	134	838	0.0125	1.9	30	0.48	0.10	0.11	1.35	2.35	2.41
NEX	21I	37.2	0.01	2	134	1,165	0.0103	1.8	30	0.46	0.10	0.11	1.88	3.26	3.35
NEX	23I	34.3	0.01	2	134	1,034	0.0107	1.7	30	0.44	0.10	0.11	1.66	2.87	2.94
NEX	25I	38.0	0.01	2	134	1,049	0.0101	1.6	30	0.42	0.10	0.11	1.76	3.02	3.09
NEX	27I	39.5	0.01	2	134	2,077	0.0093	1.5	30	0.38	0.10	0.11	1.65	2.80	2.87
NEX	29I	29.4	0.05	2	134	1,661	0.0096	1.4	30	0.35	0.10	0.14	1.44	2.18	2.24
NEX	31I	39.6	0.10	2	134	1,306	0.0098	1.3	30	0.34	0.10	0.18	2.42	3.34	3.42
NEX	33I	39.3	0.18	2	134	1,279	0.0066	1.3	30	0.34	0.10	0.24	3.21	4.05	4.15
NEX	35I	26.7	0.10	2	134	878	0.0114	1.3	30	0.33	0.10	0.18	1.59	2.18	2.24
NEX	37I	37.9	0.06	2	134	1,809	0.0076	1.2	30	0.32	0.10	0.15	1.82	2.66	2.73
NEX	39J	27.8	0.01	2	134	1,645	0.0119	2.0	30	0.52	0.10	0.11	1.59	2.80	2.87
NEX	41J	18.8	0.01	2	134	760	0.0129	1.9	30	0.50	0.10	0.11	1.03	1.81	1.85
NEX	43J	32.3	0.01	2	134	1,022	0.0128	1.9	30	0.49	0.10	0.11	1.74	3.04	3.12
NEX	45J	32.3	0.01	2	134	1,126	0.0115	1.8	30	0.47	0.10	0.11	1.67	2.90	2.98
NEX	47J	27.3	0.01	2	134	1,116	0.0106	1.7	30	0.44	0.10	0.11	1.32	2.28	2.34
NEX	49J	22.5	0.01	2	134	1,019	0.0104	1.6	30	0.42	0.10	0.11	1.04	1.78	1.83
NEX	51J	18.6	0.01	2	134	1,085	0.0098	1.5	30	0.38	0.10	0.11	0.78	1.32	1.35
NEX	53J	35.3	0.05	2	134	1,400	0.0103	1.5	30	0.38	0.10	0.14	1.88	2.87	2.94
NEX	55J	40.0	0.10	2	134	1,510	0.0079	1.4	30	0.36	0.10	0.18	2.59	3.59	3.68
NEX	57J	40.0	0.10	2	134	1,410	0.0090	1.3	30	0.34	0.10	0.18	2.45	3.38	3.46
NEX	59J	37.3	0.29	2	134	1,434	0.0091	1.3	30	0.33	0.10	0.33	4.06	4.74	4.86
NEX	61J	28.5	0.10	2	134	2,082	0.0073	1.2	30	0.32	0.10	0.18	1.64	2.25	2.31
Outlet 184KU															
NEX	1K	464.4	0.01	2	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	3K	21.5	0.01	2	124	571	0.0305	2.5	30	0.64	0.10	0.11	1.51	2.72	2.79
NEX	5K	39.6	0.01	2	124	1,014	0.0204	2.4	30	0.63	0.10	0.11	2.74	4.93	5.06
NEX	7K	39.6	0.01	2	124	1,054	0.0183	2.4	30	0.62	0.10	0.11	2.70	4.85	4.97
NEX	9K	30.7	0.01	2	134	957	0.0161	2.3	30	0.60	0.10	0.11	2.03	3.63	3.72
NEX	11K	33.2	0.01	2	134	1,511	0.0147	2.3	30	0.59	0.10	0.11	2.15	3.84	3.94
NEX	83B	26.8	0.01	2	134	709	0.0130	2.2	30	0.56	0.10	0.11	1.65	2.93	3.00
NEX	24K	30.9	0.01	2	134	778	0.0132	2.2	30	0.56	0.10	0.11	1.90	3.38	3.46
NEX	26K	32.3	0.01	2	134	881	0.0107	2.2	30	0.56	0.10	0.11	1.99	3.53	3.62
NEX	28K	28.9	0.01	2	134	934	0.0105	2.1	30	0.55	0.10	0.11	1.75	3.10	3.18
NEX	30K	21.2	0.01	2	134	853	0.0132	2.1	30	0.54	0.10	0.11	1.26	2.23	2.28
NEX	64K	31.4	0.01	2	134	784	0.0105	2.1	30	0.55	0.10	0.11	1.90	3.37	3.45
NEX	66K	37.2	0.01	2	124	770	0.0108	2.1	30	0.54	0.10	0.11	2.21	3.91	4.00
NEX	68K	34.7	0.01	2	124	992	0.0100	2.0	30	0.52	0.10	0.11	1.98	3.49	3.58
NEX	70K	19.1	0.01	2	124	975	0.0088	1.9	30	0.50	0.10	0.11	1.05	1.84	1.89
NEX	72K	10.9	0.01	2	124	715	0.0070	1.9	30	0.49	0.10	0.11	0.59	1.03	1.05
NEX	74K	24.2	0.01	2	124	1,168	0.0128	1.9	30	0.48	0.10	0.11	1.28	2.23	2.29
NEX	106K	32.1	0.01	2	124	913	0.0110	1.8	30	0.47	0.10	0.11	1.66	2.89	2.96
NEX	108K	37.7	0.01	2	124	1,081	0.0100	1.8	30	0.46	0.10	0.11	1.91	3.31	3.39
NEX	110K	39.4	0.01	2	124	1,044	0.0124	1.7	30	0.44	0.10	0.11	1.91	3.29	3.38
NEX	112K	39.8	0.01	2	124	1,121	0.0111	1.6	30	0.42	0.10	0.11	1.84	3.16	3.24
NEX	114K	40.0	0.01	2	124	960	0.0095	1.5	30	0.40	0.10	0.11	1.76	3.00	3.08
NEX	116K	39.8	0.02	2	124	919	0.0099	1.5	30	0.38	0.10	0.12	1.81	2.95	3.03
NEX	118K	39.8	0.07	2	134	835	0.0198	1.4	30	0.36	0.10	0.16	2.29	3.31	3.39
NEX	120K	22.4	0.09	2	134	1,042	0.0077	1.4	30	0.35	0.10	0.17	1.33	1.88	1.92
NEX	15B	39.1	0.09	2	134	1,212	0.0083	1.4	30	0.35	0.10	0.17	2.33	3.28	3.36
NEX	153K	38.8	0.08	2	134	2,066	0.0097	1.3	30	0.34	0.10	0.16	2.11	3.03	3.11
NEX	155K	27.3	0.09	2	134	1,710	0.0088	1.3	30	0.33	0.10	0.17	1.53	2.15	2.20
NEX	157K	22.1	0.10	2	134	1,697	0.0087	1.2	30	0.32	0.10	0.18	1.27	1.74	1.79
NEX	6B	39.7	0.10	2	134	1,115	0.0092	1.2	30	0.32	0.10	0.18	2.29	3.14	3.22
NEX	175K	28.5	0.10	2	134	1,834	0.0081	1.2	30	0.32	0.10	0.18	1.64	2.25	2.31
NEX	13L	28.8	0.01	2	134	659	0.0212	2.6	30	0.66	0.10	0.11	2.09	3.78	3.87
NEX	15L	24.8	0.01	2	134	724	0.0209	2.5	30	0.65	0.10	0.11	1.77	3.20	3.28
NEX	17L	25.3	0.01	2	134	1,152	0.0170	2.5	30	0.64	0.10	0.11	1.78	3.21	3.29
NEX	19L	21.3	0.01	2	134	1,374	0.0164	2.4	30	0.62	0.10	0.11	1.45	2.61	2.67
NEX	21L	17.9	0.01	2	134	1,523	0.0156	2.3	30	0.60	0.10	0.11	1.18	2.11	2.16

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	32M	935.0	0.90	2	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	2	134	1,319	0.0217	2.6	30	0.66	0.10	0.11	2.30	4.16	4.26
NEX	36M	29.5	0.01	2	134	1,114	0.0194	2.5	30	0.64	0.10	0.11	2.08	3.74	3.84
NEX	38M	27.9	0.01	2	134	1,014	0.0181	2.4	30	0.62	0.10	0.11	1.90	3.41	3.50
NEX	40M	39.2	0.01	2	134	1,409	0.0155	2.4	30	0.61	0.10	0.11	2.63	4.71	4.83
NEX	68B	23.0	0.01	2	134	885	0.0208	2.3	30	0.60	0.10	0.11	1.52	2.72	2.79
NEX	53M	18.1	0.01	2	134	1,259	0.0092	2.2	30	0.58	0.10	0.11	1.15	2.05	2.11
NEX	64B	24.1	0.01	2	134	934	0.0115	2.2	30	0.57	0.10	0.11	1.51	2.69	2.75
NEX	60M	21.5	0.01	2	134	1,075	0.0132	2.2	30	0.56	0.10	0.11	1.32	2.35	2.41
NEX	42N	959.0	0.01	2	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	2	134	684	0.0517	2.6	30	0.66	0.10	0.11	2.87	5.19	5.32
NEX	46N	38.9	0.01	2	134	702	0.0282	2.5	30	0.65	0.10	0.11	2.78	5.02	5.14
NEX	48N	37.9	0.01	2	134	938	0.0231	2.5	30	0.64	0.10	0.11	2.67	4.81	4.93
NEX	50N	32.3	0.01	2	134	1,933	0.0092	2.4	30	0.62	0.10	0.11	2.20	3.95	4.05
NEX	55O	35.7	0.01	2	134	2,369	0.0122	2.4	30	0.62	0.10	0.11	2.43	4.37	4.48
NEX	57O	19.0	0.01	2	134	1,288	0.0125	2.4	30	0.61	0.10	0.11	1.27	2.28	2.34
NEX	76P	199.8	0.01	2	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	2	124	1,220	0.0087	2.6	30	0.66	0.10	0.11	1.92	3.47	3.56
NEX	80P	39.7	0.01	2	134	2,419	0.0185	2.5	30	0.64	0.10	0.11	2.79	5.03	5.16
NEX	57B	40.0	0.01	2	134	949	0.0200	2.4	30	0.62	0.10	0.11	2.73	4.90	5.02
NEX	87P	40.0	0.01	2	134	856	0.0115	2.5	30	0.64	0.10	0.11	2.82	5.08	5.20
NEX	89P	40.0	0.01	2	134	1,066	0.0130	2.3	30	0.59	0.10	0.11	2.60	4.64	4.75
NEX	91P	40.0	0.01	2	134	1,323	0.0100	2.2	30	0.58	0.10	0.11	2.55	4.55	4.66
NEX	93P	38.5	0.01	2	134	1,231	0.0098	2.2	30	0.56	0.10	0.11	2.37	4.21	4.31
NEX	95P	32.9	0.01	2	124	853	0.0100	2.1	30	0.55	0.10	0.11	1.99	3.53	3.61
NEX	97P	32.3	0.01	2	124	903	0.0083	2.1	30	0.53	0.10	0.11	1.88	3.32	3.40
NEX	99P	36.0	0.01	2	124	1,173	0.0077	2.0	30	0.51	0.10	0.11	2.02	3.55	3.64
NEX	101P	22.9	0.01	2	124	832	0.0121	1.9	30	0.50	0.10	0.11	1.26	2.21	2.26
NEX	103P	12.6	0.01	2	124	949	0.0105	1.9	30	0.48	0.10	0.11	0.67	1.16	1.19
NEX	82Q	40.0	0.01	2	134	1,582	0.0272	2.6	30	0.66	0.10	0.11	2.90	5.25	5.38
NEX	84Q	40.0	0.01	2	134	1,847	0.0211	2.5	30	0.64	0.10	0.11	2.82	5.08	5.20
NEX	122R	21.6	0.01	2	134	1,940	0.0123	2.1	30	0.54	0.10	0.11	1.28	2.27	2.32
NEX	124R	32.5	0.01	2	134	1,189	0.0132	2.1	30	0.53	0.10	0.11	1.89	3.34	3.42
NEX	126R	23.9	0.01	2	134	803	0.0128	2.0	30	0.52	0.10	0.11	1.37	2.41	2.47
NEX	128R	28.8	0.01	2	134	966	0.0104	2.1	30	0.53	0.10	0.11	1.68	2.96	3.04

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	130R	29.3	0.01	2	134	795	0.0096	1.9	30	0.50	0.10	0.11	1.61	2.82	2.89
NEX	132R	27.5	0.01	2	134	759	0.0105	1.9	30	0.49	0.10	0.11	1.48	2.59	2.65
NEX	134R	27.3	0.01	2	134	740	0.0098	1.9	30	0.48	0.10	0.11	1.44	2.51	2.58
NEX	136R	29.4	0.01	2	134	849	0.0100	1.8	30	0.47	0.10	0.11	1.52	2.64	2.71
NEX	138R	36.9	0.01	2	134	960	0.0102	1.8	30	0.46	0.10	0.11	1.87	3.24	3.32
NEX	140R	27.6	0.01	2	134	705	0.0125	1.7	30	0.44	0.10	0.11	1.34	2.31	2.37
NEX	142R	36.0	0.01	2	134	966	0.0104	1.6	30	0.42	0.10	0.11	1.66	2.85	2.92
NEX	144R	39.6	0.01	2	134	1,078	0.0094	1.5	30	0.39	0.10	0.11	1.70	2.89	2.96
NEX	146R	27.4	0.01	2	134	693	0.0144	1.4	30	0.36	0.10	0.11	1.09	1.83	1.88
NEX	148R	27.6	0.08	2	134	1,266	0.0097	1.4	30	0.36	0.10	0.16	1.59	2.30	2.35
NEX	150R	20.7	0.10	2	134	1,379	0.0096	1.4	30	0.35	0.10	0.18	1.30	1.80	1.84
NEX	17B	39.1	0.09	2	134	1,212	0.0083	1.3	30	0.34	0.10	0.17	2.26	3.18	3.26
NEX	159S	39.3	0.10	2	134	2,302	0.0110	1.3	30	0.33	0.10	0.18	2.33	3.21	3.29
NEX	161S	36.7	0.10	2	134	2,012	0.0121	1.2	30	0.32	0.10	0.18	2.11	2.89	2.97
NEX	163T	16.1	0.10	2	134	1,839	0.0088	1.3	30	0.34	0.10	0.18	0.99	1.36	1.40
NEX	165T	28.5	0.10	2	134	887	0.0119	1.3	30	0.34	0.10	0.18	1.74	2.40	2.46
NEX	167T	38.0	0.10	2	134	1,078	0.0088	1.2	30	0.32	0.10	0.18	2.19	3.00	3.08
NEX	169T	39.8	0.10	2	134	1,337	0.0120	1.2	30	0.32	0.10	0.18	2.29	3.14	3.22
NEX	171T	29.2	0.10	2	134	1,813	0.0098	1.2	30	0.32	0.10	0.18	1.68	2.30	2.36
NEX	177U	29.4	0.10	2	134	3,079	0.0082	1.2	30	0.32	0.10	0.18	1.69	2.32	2.38
NEX	178U	29.1	0.10	2	134	2,590	0.0098	1.2	30	0.32	0.10	0.18	1.68	2.30	2.36
NEX	180U	31.8	0.06	2	134	2,207	0.0112	1.2	30	0.32	0.10	0.15	1.53	2.23	2.29
NEX	182U	21.3	0.03	2	134	2,448	0.0081	1.2	30	0.32	0.10	0.12	0.82	1.31	1.34
Outlet 8V															
NEX	1V	23.8	0.08	2	134	1,412	0.0103	1.2	30	0.32	0.10	0.16	1.22	1.74	1.78
NEX	3V	39.4	0.03	2	134	1,046	0.0115	1.2	30	0.32	0.10	0.12	1.51	2.41	2.47
NEX	5V	39.9	0.06	2	134	892	0.0100	1.2	30	0.32	0.10	0.15	1.92	2.80	2.87
NEX	7V	40.0	0.06	2	134	964	0.0100	1.2	30	0.32	0.10	0.15	1.92	2.81	2.88
Outlet 73WZ															
NEX	1W	24.1	0.01	2	124	1,848	0.0105	2.0	30	0.52	0.10	0.11	1.38	2.43	2.49
NEX	3W	22.3	0.01	2	124	1,007	0.0107	1.9	30	0.50	0.10	0.11	1.23	2.15	2.21
NEX	5W	26.9	0.01	2	124	1,111	0.0099	1.9	30	0.48	0.10	0.11	1.42	2.48	2.54
NEX	7W	24.7	0.01	2	124	1,118	0.0071	1.8	30	0.46	0.10	0.11	1.25	2.17	2.22
NEX	9W	35.1	0.01	2	124	1,301	0.0100	1.7	30	0.44	0.10	0.11	1.70	2.93	3.01
NEX	11W	24.8	0.02	2	124	779	0.0075	1.7	30	0.43	0.10	0.12	1.28	2.12	2.17

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	13W	36.2	0.05	2	124	915	0.0114	1.6	30	0.42	0.10	0.14	2.13	3.29	3.37
NEX	15W	33.0	0.07	2	124	796	0.0139	1.5	30	0.40	0.10	0.16	2.11	3.08	3.15
NEX	17W	39.5	0.10	2	124	930	0.0120	1.5	30	0.38	0.10	0.18	2.70	3.76	3.85
NEX	19W	32.8	0.10	2	124	774	0.0094	1.4	30	0.36	0.10	0.18	2.13	2.95	3.02
NEX	21W	35.4	0.10	2	124	1,066	0.0082	1.4	30	0.36	0.10	0.18	2.29	3.17	3.25
NEX	23W	19.1	0.10	2	134	860	0.0063	1.4	30	0.35	0.10	0.18	1.20	1.66	1.70
NEX	25W	11.4	0.10	2	134	684	0.0073	1.4	30	0.35	0.10	0.18	0.72	0.99	1.02
NEX	27W	22.7	0.10	2	134	1,949	0.0103	1.3	30	0.34	0.10	0.18	1.39	1.92	1.96
NEX	4B	15.1	0.10	2	134	642	0.0098	1.3	30	0.34	0.10	0.18	0.92	1.27	1.30
NEX	38W	19.2	0.06	2	134	1,430	0.0096	1.3	30	0.33	0.10	0.15	0.95	1.39	1.43
NEX	2B	27.6	0.01	2	134	1,623	0.0080	1.2	30	0.32	0.10	0.11	0.97	1.61	1.65
NEX	29X	7.3	0.10	2	124	1,088	0.0076	1.4	30	0.36	0.10	0.18	0.47	0.65	0.67
NEX	31X	23.1	0.10	2	124	882	0.0135	1.4	30	0.35	0.10	0.18	1.46	2.02	2.07
NEX	33X	13.0	0.10	2	124	429	0.0129	1.3	30	0.34	0.10	0.18	0.80	1.10	1.13
NEX	35X	18.5	0.10	2	134	1,115	0.0128	1.3	30	0.34	0.10	0.18	1.13	1.56	1.60
NEX	40Y	6.4	0.10	2	124	970	0.0089	1.4	30	0.36	0.10	0.18	0.41	0.57	0.58
NEX	42Y	11.2	0.10	2	124	831	0.0114	1.4	30	0.36	0.10	0.18	0.73	1.01	1.03
NEX	44Y	15.6	0.10	2	124	883	0.0107	1.4	30	0.35	0.10	0.18	0.98	1.36	1.39
NEX	46Y	9.5	0.10	2	124	390	0.0168	1.3	30	0.34	0.10	0.18	0.58	0.80	0.82
NEX	48Y	13.1	0.10	2	134	658	0.0167	1.3	30	0.33	0.10	0.18	0.78	1.07	1.10
NEX	50Y	24.4	0.05	2	134	1,416	0.0105	1.3	30	0.33	0.10	0.14	1.13	1.70	1.74
NEX	53Z	12.8	0.10	2	124	1,273	0.0132	1.5	30	0.40	0.10	0.18	0.92	1.29	1.32
NEX	55Z	24.9	0.10	2	124	1,086	0.0117	1.5	30	0.39	0.10	0.18	1.75	2.44	2.50
NEX	57Z	25.8	0.10	2	124	863	0.0135	1.4	30	0.37	0.10	0.18	1.72	2.39	2.45
NEX	59Z	30.1	0.10	2	124	922	0.0123	1.4	30	0.36	0.10	0.18	1.95	2.70	2.77
NEX	61Z	28.0	0.10	2	124	907	0.0102	1.4	30	0.35	0.10	0.18	1.76	2.43	2.49
NEX	63Z	32.7	0.10	2	124	1,048	0.0113	1.4	30	0.35	0.10	0.18	2.06	2.85	2.92
NEX	65Z	25.7	0.05	2	134	1,003	0.0124	1.3	30	0.34	0.10	0.14	1.22	1.84	1.89
NEX	67Z	9.1	0.01	2	134	399	0.0147	1.3	30	0.34	0.10	0.11	0.34	0.57	0.58
NEX	69Z	24.4	0.01	2	134	1,072	0.0128	1.3	30	0.33	0.10	0.11	0.89	1.48	1.52
NEX	71Z	27.0	0.01	2	134	1,351	0.0092	1.2	30	0.32	0.10	0.11	0.95	1.58	1.62
Outlet 110A															
NEX	101A	8.2	0.10	2	124	1,080	0.0117	1.5	30	0.40	0.10	0.18	0.59	0.82	0.85
NEX	103A	17.4	0.10	2	124	846	0.0126	1.5	30	0.38	0.10	0.18	1.19	1.66	1.70
NEX	105A	18.4	0.10	2	124	782	0.0142	1.4	30	0.37	0.10	0.18	1.23	1.71	1.75

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	107A	24.3	0.10	2	120	822	0.0118	1.4	30	0.36	0.10	0.18	1.57	2.18	2.23
NEX	109A	21.0	0.10	2	120	717	0.0102	1.4	30	0.36	0.10	0.18	1.36	1.88	1.93
Outlet 165B															
NEX	13B	30.0	0.01	2	124	1,041	0.0084	2.2	30	0.56	0.10	0.11	1.85	3.28	3.36
NEX	14B	22.1	0.01	2	134	2,097	0.0097	2.2	30	0.57	0.10	0.11	1.39	2.47	2.53
NEX	20B	38.7	0.01	2	124	1,100	0.0114	2.2	30	0.58	0.10	0.11	2.47	4.40	4.51
NEX	21B	11.2	0.01	2	134	976	0.0116	2.2	30	0.58	0.10	0.11	0.71	1.27	1.30
NEX	28B	24.5	0.01	2	134	1,210	0.0123	2.4	30	0.62	0.10	0.11	1.67	3.00	3.07
NEX	29B	7.6	0.01	2	124	918	0.0157	2.4	30	0.62	0.10	0.11	0.52	0.93	0.96
NEX	35B	15.5	0.01	2	124	1,532	0.0248	2.5	30	0.65	0.10	0.11	1.11	2.00	2.05
NEX	36B	29.0	0.01	2	124	1,706	0.0265	2.6	30	0.66	0.10	0.11	2.11	3.81	3.91
NEX	100B	67.1	0.01	2	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	2	124	1,058	0.0457	2.6	30	0.68	0.10	0.11	1.94	3.52	3.61
NEX	104B	24.8	0.01	2	124	1,470	0.0295	2.6	30	0.66	0.10	0.11	1.80	3.25	3.34
NEX	106B	18.1	0.01	2	124	959	0.0182	2.5	30	0.64	0.10	0.11	1.27	2.29	2.35
NEX	118B	34.1	0.01	2	124	944	0.0135	2.3	30	0.60	0.10	0.11	2.25	4.03	4.13
NEX	142B	27.0	0.01	2	124	872	0.0100	2.1	30	0.55	0.10	0.11	1.63	2.89	2.96
NEX	144B	24.7	0.01	2	124	1,127	0.0100	2.1	30	0.53	0.10	0.11	1.44	2.54	2.60
NEX	146B	26.0	0.01	2	124	1,083	0.0087	2.0	30	0.51	0.10	0.11	1.46	2.56	2.63
NEX	148B	22.6	0.01	2	124	872	0.0064	1.9	30	0.49	0.10	0.11	1.22	2.13	2.18
NEX	150B	28.5	0.01	2	124	1,358	0.0100	1.8	30	0.46	0.10	0.11	1.44	2.50	2.56
NEX	152B	23.4	0.01	2	124	1,217	0.0094	1.7	30	0.44	0.10	0.11	1.13	1.95	2.00
NEX	154B	20.9	0.02	2	124	807	0.0117	1.6	30	0.42	0.10	0.12	1.05	1.73	1.78
NEX	156B	26.1	0.05	2	124	966	0.0109	1.6	30	0.41	0.10	0.14	1.50	2.31	2.37
NEX	158B	26.4	0.05	2	124	973	0.0103	1.5	30	0.40	0.10	0.14	1.48	2.27	2.33
NEX	160B	29.7	0.05	2	124	1,044	0.0088	1.5	30	0.39	0.10	0.14	1.62	2.48	2.55
NEX	162B	27.9	0.07	2	124	1,101	0.0100	1.5	30	0.38	0.10	0.16	1.70	2.47	2.53
NEX	164B	25.2	0.10	2	124	1,034	0.0097	1.5	30	0.38	0.10	0.18	1.72	2.40	2.46
NEX	108C	959.0	0.01	2	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	2	124	1,568	0.0397	2.6	30	0.67	0.10	0.11	2.93	5.30	5.43
NEX	115C	12.0	0.01	2	124	949	0.0196	2.5	30	0.64	0.10	0.11	0.84	1.52	1.56
NEX	112D	37.7	0.01	2	124	2,150	0.0278	2.6	30	0.67	0.10	0.11	2.78	5.03	5.16
NEX	120E	31.1	0.01	2	124	2,049	0.0310	2.6	30	0.66	0.10	0.11	2.26	4.08	4.19
NEX	122E	18.9	0.01	2	124	866	0.0304	2.5	30	0.65	0.10	0.11	1.35	2.44	2.50
NEX	124E	37.4	0.01	2	134	1,753	0.0175	2.4	30	0.63	0.10	0.11	2.59	4.66	4.78

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
2-YEAR STORM															
NEX	126E	21.3	0.01	2	134	919	0.0177	2.4	30	0.61	0.10	0.11	1.43	2.56	2.63
NEX	128E	16.6	0.01	2	134	904	0.0144	2.3	30	0.60	0.10	0.11	1.10	1.96	2.01
NEX	131F	13.6	0.01	2	134	906	0.0318	2.5	30	0.65	0.10	0.11	0.97	1.75	1.80
NEX	133F	26.1	0.01	2	134	1,224	0.0214	2.5	30	0.64	0.10	0.11	1.84	3.31	3.40
NEX	135F	37.2	0.01	2	134	1,787	0.0163	2.4	30	0.62	0.10	0.11	2.54	4.56	4.67
NEX	137F	24.5	0.01	2	134	979	0.0194	2.3	30	0.60	0.10	0.11	1.62	2.90	2.97
NEX	139F	14.3	0.01	2	134	790	0.0144	2.3	30	0.59	0.10	0.11	0.93	1.66	1.70

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	5	124	2,398	0.0092	2.5	30	0.63	0.10	0.11	2.77	4.98	5.11
NEX	3A	39.8	0.01	5	124	1,498	0.0097	2.2	30	0.57	0.10	0.11	2.50	4.44	4.55
NEX	5A	38.3	0.01	5	124	1,253	0.0091	2.1	30	0.54	0.10	0.11	2.28	4.03	4.13
NEX	7A	32.4	0.01	5	124	1,114	0.0101	2.0	30	0.53	0.10	0.11	1.89	3.33	3.42
NEX	9A	27.7	0.07	5	124	1,242	0.0087	2.0	30	0.51	0.10	0.16	2.26	3.37	3.45
NEX	11A	33.9	0.10	5	124	1,469	0.0099	2.0	30	0.51	0.10	0.18	3.11	4.44	4.55
NEX	13A	38.9	0.10	5	134	1,177	0.0087	1.9	30	0.50	0.10	0.18	3.50	4.98	5.11
NEX	15A	38.3	0.10	5	134	994	0.0104	1.9	30	0.48	0.10	0.18	3.31	4.70	4.81
Outlet 6B															
NEX	1B	22.1	0.10	5	124	2,664	0.0093	2.0	30	0.51	0.10	0.18	2.03	2.89	2.97
NEX	3B	39.9	0.10	5	124	1,443	0.0124	1.9	30	0.48	0.10	0.18	3.45	4.89	5.02
NEX	5B	39.0	0.04	5	124	732	0.0103	1.9	30	0.48	0.10	0.13	2.43	3.93	4.03
Outlet 110CG															
NEX	1C	17.8	0.01	5	124	1,591	0.0201	3.6	30	0.93	0.10	0.11	1.82	3.41	3.50
NEX	3C	15.5	0.01	5	124	1,045	0.0180	3.5	30	0.90	0.10	0.11	1.53	2.86	2.93
NEX	5C	29.5	0.01	5	124	1,347	0.0173	3.4	30	0.87	0.10	0.11	2.82	5.25	5.38
NEX	7C	25.1	0.01	5	124	1,037	0.0175	3.3	30	0.86	0.10	0.11	2.37	4.41	4.52
NEX	9C	20.7	0.01	5	124	733	0.0164	3.3	30	0.84	0.10	0.11	1.91	3.55	3.63
NEX	11C	25.8	0.01	5	124	713	0.0162	3.2	30	0.83	0.10	0.11	2.36	4.37	4.48
NEX	13C	31.9	0.01	5	124	939	0.0156	3.2	30	0.83	0.10	0.11	2.91	5.39	5.53
NEX	15C	34.6	0.01	5	124	903	0.0126	3.2	30	0.81	0.10	0.11	3.08	5.69	5.84
NEX	17C	32.8	0.01	5	124	1,112	0.0142	3.0	30	0.78	0.10	0.11	2.81	5.18	5.31
NEX	19C	23.2	0.01	5	124	1,160	0.0121	2.9	30	0.75	0.10	0.11	1.91	3.50	3.59
NEX	21C	29.7	0.01	5	124	1,549	0.0113	2.7	30	0.71	0.10	0.11	2.32	4.23	4.33
NEX	23C	35.4	0.01	5	124	1,993	0.0106	2.5	30	0.63	0.10	0.11	2.45	4.41	4.52
NEX	25C	28.1	0.01	5	124	1,765	0.0089	2.3	30	0.59	0.10	0.11	1.82	3.25	3.33
NEX	27C	35.0	0.01	5	124	1,922	0.0082	2.1	30	0.54	0.10	0.11	2.08	3.68	3.77
NEX	29C	34.0	0.01	5	124	1,457	0.0104	2.0	30	0.53	0.10	0.11	1.98	3.49	3.58
NEX	31C	29.3	0.01	5	124	1,251	0.0108	2.0	30	0.51	0.10	0.11	1.64	2.88	2.96
NEX	33C	35.6	0.10	5	124	2,107	0.0110	1.9	30	0.50	0.10	0.18	3.20	4.56	4.67
NEX	109C	21.4	0.10	5	124	2,279	0.0094	1.9	30	0.48	0.10	0.18	1.85	2.62	2.69
NEX	35D	16.7	0.01	5	134	1,299	0.0130	3.0	30	0.78	0.10	0.11	1.43	2.63	2.70
NEX	37D	29.0	0.01	5	124	1,308	0.0138	2.9	30	0.75	0.10	0.11	2.39	4.38	4.49
NEX	39D	29.9	0.01	5	124	1,530	0.0105	2.8	30	0.72	0.10	0.11	2.37	4.32	4.43

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	41D	21.4	0.01	5	124	1,185	0.0107	2.6	30	0.68	0.10	0.11	1.60	2.90	2.98
NEX	43D	26.1	0.01	5	124	1,524	0.0106	2.5	30	0.63	0.10	0.11	1.81	3.25	3.34
NEX	45D	30.2	0.01	5	134	1,697	0.0084	2.3	30	0.60	0.10	0.11	1.99	3.56	3.65
NEX	47D	30.2	0.01	5	134	1,239	0.0099	2.1	30	0.54	0.10	0.11	1.79	3.17	3.25
NEX	49D	39.0	0.01	5	134	1,500	0.0087	2.0	30	0.53	0.10	0.11	2.27	4.01	4.11
NEX	51D	31.8	0.05	5	134	1,258	0.0114	2.0	30	0.51	0.10	0.14	2.27	3.57	3.66
NEX	53D	23.0	0.10	5	134	1,118	0.0076	2.0	30	0.51	0.10	0.18	2.11	3.01	3.08
NEX	55D	14.6	0.10	5	124	1,256	0.0099	1.9	30	0.50	0.10	0.18	1.31	1.87	1.91
NEX	58E	12.6	0.10	5	124	1,440	0.0115	1.9	30	0.50	0.10	0.18	1.13	1.61	1.65
NEX	60E	28.7	0.10	5	124	3,334	0.0115	1.9	30	0.48	0.10	0.18	2.48	3.52	3.61
NEX	62F	16.5	0.01	5	124	1,673	0.0210	3.6	30	0.92	0.10	0.11	1.67	3.13	3.21
NEX	64F	24.0	0.01	5	124	955	0.0200	3.5	30	0.90	0.10	0.11	2.38	4.44	4.55
NEX	66F	33.9	0.01	5	124	1,251	0.0183	3.4	30	0.87	0.10	0.11	3.24	6.04	6.19
NEX	68F	29.6	0.01	5	124	1,122	0.0174	3.3	30	0.86	0.10	0.11	2.80	5.21	5.34
NEX	70F	25.9	0.01	5	124	874	0.0146	3.3	30	0.84	0.10	0.11	2.39	4.44	4.55
NEX	72F	26.7	0.01	5	124	907	0.0150	3.2	30	0.83	0.10	0.11	2.44	4.52	4.63
NEX	74F	29.9	0.01	5	124	876	0.0140	3.2	30	0.81	0.10	0.11	2.66	4.92	5.04
NEX	76F	39.5	0.01	5	124	987	0.0160	3.0	30	0.78	0.10	0.11	3.39	6.24	6.40
NEX	78F	38.8	0.01	5	124	900	0.0130	2.9	30	0.75	0.10	0.11	3.20	5.87	6.01
NEX	80F	39.6	0.01	5	124	831	0.0143	2.8	30	0.72	0.10	0.11	3.14	5.73	5.87
NEX	82F	39.9	0.01	5	124	829	0.0121	2.7	30	0.69	0.10	0.11	3.03	5.50	5.64
NEX	84F	39.8	0.01	5	124	853	0.0117	2.6	30	0.66	0.10	0.11	2.89	5.22	5.36
NEX	86F	39.1	0.01	5	124	1,094	0.0099	2.6	30	0.66	0.10	0.11	2.84	5.13	5.26
NEX	88F	22.9	0.01	5	124	845	0.0078	2.5	30	0.63	0.10	0.11	1.59	2.86	2.93
NEX	90F	36.2	0.01	5	124	1,675	0.0088	2.3	30	0.59	0.10	0.11	2.35	4.20	4.30
NEX	92F	23.7	0.01	5	124	1,298	0.0095	2.1	30	0.54	0.10	0.11	1.41	2.49	2.55
NEX	94F	17.9	0.01	5	124	1,020	0.0084	2.0	30	0.53	0.10	0.11	1.04	1.84	1.88
NEX	96F	22.5	0.01	5	124	1,387	0.0064	2.0	30	0.51	0.10	0.11	1.26	2.21	2.27
NEX	98F	21.4	0.01	5	124	1,222	0.0099	2.0	30	0.51	0.10	0.11	1.20	2.11	2.16
NEX	100F	16.7	0.10	5	124	1,247	0.0115	1.9	30	0.50	0.10	0.18	1.50	2.14	2.19
NEX	102F	23.0	0.10	5	124	3,287	0.0111	1.9	30	0.48	0.10	0.18	1.99	2.82	2.89
NEX	104G	18.2	0.10	5	134	1,898	0.0104	1.9	30	0.50	0.10	0.18	1.64	2.33	2.39
NEX	106G	39.9	0.07	5	134	2,469	0.0090	1.9	30	0.48	0.10	0.16	3.06	4.54	4.65
Outlet 4H															
NEX	1H	19.0	0.10	5	134	1,718	0.0090	1.9	30	0.50	0.10	0.18	1.71	2.43	2.49

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	3H	39.5	0.03	5	134	1,850	0.0112	1.9	30	0.48	0.10	0.12	2.28	3.81	3.91
Outlet 63IJ															
NEX	1I	10.8	0.01	5	124	1,416	0.0169	3.4	30	0.87	0.10	0.11	1.03	1.92	1.97
NEX	3I	18.1	0.01	5	124	929	0.0163	3.3	30	0.86	0.10	0.11	1.71	3.18	3.26
NEX	5I	12.8	0.01	5	124	459	0.0169	3.3	30	0.86	0.10	0.11	1.21	2.25	2.31
NEX	7I	16.5	0.01	5	134	616	0.0136	3.3	30	0.84	0.10	0.11	1.52	2.82	2.89
NEX	9I	25.9	0.01	5	134	879	0.0149	3.3	30	0.84	0.10	0.11	2.39	4.44	4.55
NEX	11I	26.8	0.01	5	134	968	0.0127	3.2	30	0.83	0.10	0.11	2.45	4.54	4.65
NEX	13I	31.1	0.01	5	134	1,180	0.0126	3.1	30	0.80	0.10	0.11	2.74	5.05	5.18
NEX	15I	37.7	0.01	5	134	1,443	0.0129	3.0	30	0.78	0.10	0.11	3.23	5.95	6.10
NEX	17I	27.6	0.01	5	134	900	0.0119	2.9	30	0.74	0.10	0.11	2.25	4.12	4.22
NEX	19I	25.5	0.01	5	134	838	0.0125	2.8	30	0.72	0.10	0.11	2.02	3.69	3.78
NEX	21I	37.2	0.01	5	134	1,165	0.0103	2.7	30	0.69	0.10	0.11	2.82	5.13	5.25
NEX	23I	34.3	0.01	5	134	1,034	0.0107	2.6	30	0.66	0.10	0.11	2.49	4.50	4.61
NEX	25I	38.0	0.01	5	134	1,049	0.0101	2.5	30	0.63	0.10	0.11	2.63	4.73	4.85
NEX	27I	39.5	0.01	5	134	2,077	0.0093	2.2	30	0.57	0.10	0.11	2.48	4.41	4.52
NEX	29I	29.4	0.05	5	134	1,661	0.0096	2.0	30	0.53	0.10	0.14	2.18	3.45	3.53
NEX	31I	39.6	0.10	5	134	1,306	0.0098	2.0	30	0.51	0.10	0.18	3.64	5.19	5.32
NEX	33I	39.3	0.18	5	134	1,279	0.0066	2.0	30	0.51	0.10	0.24	4.81	6.23	6.39
NEX	35I	26.7	0.10	5	134	878	0.0114	1.9	30	0.50	0.10	0.18	2.40	3.42	3.50
NEX	37I	37.9	0.06	5	134	1,809	0.0076	1.9	30	0.48	0.10	0.15	2.73	4.15	4.26
NEX	39J	27.8	0.01	5	134	1,645	0.0119	3.0	30	0.78	0.10	0.11	2.39	4.39	4.50
NEX	41J	18.8	0.01	5	134	760	0.0129	2.9	30	0.75	0.10	0.11	1.55	2.84	2.91
NEX	43J	32.3	0.01	5	134	1,022	0.0128	2.9	30	0.74	0.10	0.11	2.63	4.81	4.93
NEX	45J	32.3	0.01	5	134	1,126	0.0115	2.7	30	0.71	0.10	0.11	2.52	4.59	4.71
NEX	47J	27.3	0.01	5	134	1,116	0.0106	2.6	30	0.66	0.10	0.11	1.98	3.58	3.67
NEX	49J	22.5	0.01	5	134	1,019	0.0104	2.5	30	0.63	0.10	0.11	1.56	2.81	2.88
NEX	51J	18.6	0.01	5	134	1,085	0.0098	2.2	30	0.57	0.10	0.11	1.17	2.08	2.13
NEX	53J	35.3	0.05	5	134	1,400	0.0103	2.2	30	0.57	0.10	0.14	2.82	4.48	4.60
NEX	55J	40.0	0.10	5	134	1,510	0.0079	2.1	30	0.54	0.10	0.18	3.89	5.57	5.71
NEX	57J	40.0	0.10	5	134	1,410	0.0090	2.0	30	0.51	0.10	0.18	3.67	5.23	5.36
NEX	59J	37.3	0.29	5	134	1,434	0.0091	1.9	30	0.50	0.10	0.33	6.15	7.31	7.49
NEX	61J	28.5	0.10	5	134	2,082	0.0073	1.9	30	0.48	0.10	0.18	2.46	3.49	3.58
Outlet 184KU															
NEX	1K	464.4	0.01	5	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	3K	21.5	0.01	5	124	571	0.0305	3.7	30	0.96	0.10	0.11	2.27	4.27	4.38
NEX	5K	39.6	0.01	5	124	1,014	0.0204	3.7	30	0.95	0.10	0.11	4.14	7.78	7.97
NEX	7K	39.6	0.01	5	124	1,054	0.0183	3.6	30	0.93	0.10	0.11	4.05	7.59	7.78
NEX	9K	30.7	0.01	5	134	957	0.0161	3.5	30	0.90	0.10	0.11	3.04	5.68	5.82
NEX	11K	33.2	0.01	5	134	1,511	0.0147	3.4	30	0.89	0.10	0.11	3.25	6.07	6.22
NEX	83B	26.8	0.01	5	134	709	0.0130	3.3	30	0.84	0.10	0.11	2.48	4.60	4.71
NEX	24K	30.9	0.01	5	134	778	0.0132	3.3	30	0.84	0.10	0.11	2.86	5.30	5.43
NEX	26K	32.3	0.01	5	134	881	0.0107	3.3	30	0.84	0.10	0.11	2.98	5.53	5.67
NEX	28K	28.9	0.01	5	134	934	0.0105	3.2	30	0.83	0.10	0.11	2.64	4.89	5.01
NEX	30K	21.2	0.01	5	134	853	0.0132	3.2	30	0.81	0.10	0.11	1.89	3.49	3.58
NEX	64K	31.4	0.01	5	134	784	0.0105	3.2	30	0.83	0.10	0.11	2.87	5.31	5.45
NEX	66K	37.2	0.01	5	124	770	0.0108	3.2	30	0.81	0.10	0.11	3.31	6.12	6.27
NEX	68K	34.7	0.01	5	124	992	0.0100	3.0	30	0.78	0.10	0.11	2.98	5.48	5.62
NEX	70K	19.1	0.01	5	124	975	0.0088	2.9	30	0.75	0.10	0.11	1.58	2.89	2.96
NEX	72K	10.9	0.01	5	124	715	0.0070	2.9	30	0.74	0.10	0.11	0.89	1.63	1.67
NEX	74K	24.2	0.01	5	124	1,168	0.0128	2.8	30	0.72	0.10	0.11	1.92	3.50	3.59
NEX	106K	32.1	0.01	5	124	913	0.0110	2.7	30	0.71	0.10	0.11	2.51	4.57	4.69
NEX	108K	37.7	0.01	5	124	1,081	0.0100	2.7	30	0.69	0.10	0.11	2.86	5.20	5.33
NEX	110K	39.4	0.01	5	124	1,044	0.0124	2.6	30	0.66	0.10	0.11	2.86	5.17	5.30
NEX	112K	39.8	0.01	5	124	1,121	0.0111	2.5	30	0.63	0.10	0.11	2.76	4.96	5.09
NEX	114K	40.0	0.01	5	124	960	0.0095	2.3	30	0.60	0.10	0.11	2.64	4.72	4.84
NEX	116K	39.8	0.02	5	124	919	0.0099	2.2	30	0.57	0.10	0.12	2.72	4.64	4.76
NEX	118K	39.8	0.07	5	134	835	0.0198	2.1	30	0.54	0.10	0.16	3.44	5.15	5.28
NEX	120K	22.4	0.09	5	134	1,042	0.0077	2.0	30	0.53	0.10	0.17	2.02	2.95	3.02
NEX	15B	39.1	0.09	5	134	1,212	0.0083	2.0	30	0.53	0.10	0.17	3.52	5.14	5.27
NEX	153K	38.8	0.08	5	134	2,066	0.0097	2.0	30	0.51	0.10	0.16	3.17	4.72	4.84
NEX	155K	27.3	0.09	5	134	1,710	0.0088	1.9	30	0.50	0.10	0.17	2.32	3.37	3.46
NEX	157K	22.1	0.10	5	134	1,697	0.0087	1.9	30	0.48	0.10	0.18	1.91	2.71	2.78
NEX	6B	39.7	0.10	5	134	1,115	0.0092	1.9	30	0.48	0.10	0.18	3.43	4.87	4.99
NEX	175K	28.5	0.10	5	134	1,834	0.0081	1.9	30	0.48	0.10	0.18	2.46	3.49	3.58
NEX	13L	28.8	0.01	5	134	659	0.0212	3.9	30	0.99	0.10	0.11	3.14	5.92	6.07
NEX	15L	24.8	0.01	5	134	724	0.0209	3.8	30	0.98	0.10	0.11	2.67	5.04	5.16
NEX	17L	25.3	0.01	5	134	1,152	0.0170	3.7	30	0.96	0.10	0.11	2.67	5.02	5.15
NEX	19L	21.3	0.01	5	134	1,374	0.0164	3.6	30	0.93	0.10	0.11	2.18	4.09	4.19
NEX	21L	17.9	0.01	5	134	1,523	0.0156	3.5	30	0.90	0.10	0.11	1.77	3.31	3.39

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	32M	935.0	0.90	5	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	5	134	1,319	0.0217	3.9	30	0.99	0.10	0.11	3.45	6.51	6.67
NEX	36M	29.5	0.01	5	134	1,114	0.0194	3.7	30	0.96	0.10	0.11	3.12	5.86	6.01
NEX	38M	27.9	0.01	5	134	1,014	0.0181	3.6	30	0.93	0.10	0.11	2.85	5.35	5.48
NEX	40M	39.2	0.01	5	134	1,409	0.0155	3.6	30	0.92	0.10	0.11	3.97	7.43	7.62
NEX	68B	23.0	0.01	5	134	885	0.0208	3.5	30	0.90	0.10	0.11	2.28	4.26	4.36
NEX	53M	18.1	0.01	5	134	1,259	0.0092	3.4	30	0.87	0.10	0.11	1.73	3.22	3.30
NEX	64B	24.1	0.01	5	134	934	0.0115	3.3	30	0.86	0.10	0.11	2.28	4.24	4.35
NEX	60M	21.5	0.01	5	134	1,075	0.0132	3.3	30	0.84	0.10	0.11	1.99	3.69	3.78
NEX	42N	959.0	0.01	5	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	5	134	684	0.0517	3.9	30	0.99	0.10	0.11	4.30	8.11	8.32
NEX	46N	38.9	0.01	5	134	702	0.0282	3.8	30	0.98	0.10	0.11	4.19	7.90	8.10
NEX	48N	37.9	0.01	5	134	938	0.0231	3.7	30	0.96	0.10	0.11	4.00	7.53	7.71
NEX	50N	32.3	0.01	5	134	1,933	0.0092	3.6	30	0.93	0.10	0.11	3.30	6.19	6.35
NEX	55O	35.7	0.01	5	134	2,369	0.0122	3.6	30	0.93	0.10	0.11	3.65	6.84	7.02
NEX	57O	19.0	0.01	5	134	1,288	0.0125	3.6	30	0.92	0.10	0.11	1.92	3.60	3.69
NEX	76P	199.8	0.01	5	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	5	124	1,220	0.0087	3.9	30	0.99	0.10	0.11	2.89	5.45	5.58
NEX	80P	39.7	0.01	5	134	2,419	0.0185	3.7	30	0.96	0.10	0.11	4.19	7.88	8.08
NEX	57B	40.0	0.01	5	134	949	0.0200	3.6	30	0.93	0.10	0.11	4.09	7.67	7.86
NEX	87P	40.0	0.01	5	134	856	0.0115	3.7	30	0.96	0.10	0.11	4.22	7.94	8.14
NEX	89P	40.0	0.01	5	134	1,066	0.0130	3.4	30	0.89	0.10	0.11	3.92	7.31	7.49
NEX	91P	40.0	0.01	5	134	1,323	0.0100	3.4	30	0.87	0.10	0.11	3.83	7.13	7.31
NEX	93P	38.5	0.01	5	134	1,231	0.0098	3.3	30	0.84	0.10	0.11	3.56	6.60	6.77
NEX	95P	32.9	0.01	5	124	853	0.0100	3.2	30	0.83	0.10	0.11	3.00	5.56	5.70
NEX	97P	32.3	0.01	5	124	903	0.0083	3.1	30	0.80	0.10	0.11	2.84	5.24	5.38
NEX	99P	36.0	0.01	5	124	1,173	0.0077	3.0	30	0.77	0.10	0.11	3.05	5.61	5.75
NEX	101P	22.9	0.01	5	124	832	0.0121	2.9	30	0.75	0.10	0.11	1.89	3.46	3.55
NEX	103P	12.6	0.01	5	124	949	0.0105	2.8	30	0.72	0.10	0.11	1.00	1.82	1.87
NEX	82Q	40.0	0.01	5	134	1,582	0.0272	3.9	30	0.99	0.10	0.11	4.36	8.22	8.43
NEX	84Q	40.0	0.01	5	134	1,847	0.0211	3.7	30	0.96	0.10	0.11	4.22	7.94	8.14
NEX	122R	21.6	0.01	5	134	1,940	0.0123	3.2	30	0.81	0.10	0.11	1.92	3.55	3.64
NEX	124R	32.5	0.01	5	134	1,189	0.0132	3.1	30	0.80	0.10	0.11	2.86	5.28	5.41
NEX	126R	23.9	0.01	5	134	803	0.0128	3.0	30	0.78	0.10	0.11	2.05	3.77	3.87
NEX	128R	28.8	0.01	5	134	966	0.0104	3.1	30	0.80	0.10	0.11	2.53	4.67	4.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	130R	29.3	0.01	5	134	795	0.0096	2.9	30	0.75	0.10	0.11	2.42	4.43	4.54
NEX	132R	27.5	0.01	5	134	759	0.0105	2.9	30	0.74	0.10	0.11	2.24	4.10	4.20
NEX	134R	27.3	0.01	5	134	740	0.0098	2.8	30	0.72	0.10	0.11	2.16	3.94	4.04
NEX	136R	29.4	0.01	5	134	849	0.0100	2.7	30	0.71	0.10	0.11	2.30	4.19	4.29
NEX	138R	36.9	0.01	5	134	960	0.0102	2.7	30	0.69	0.10	0.11	2.80	5.09	5.21
NEX	140R	27.6	0.01	5	134	705	0.0125	2.6	30	0.66	0.10	0.11	2.00	3.62	3.71
NEX	142R	36.0	0.01	5	134	966	0.0104	2.5	30	0.63	0.10	0.11	2.49	4.48	4.60
NEX	144R	39.6	0.01	5	134	1,078	0.0094	2.3	30	0.59	0.10	0.11	2.57	4.59	4.70
NEX	146R	27.4	0.01	5	134	693	0.0144	2.1	30	0.54	0.10	0.11	1.63	2.88	2.95
NEX	148R	27.6	0.08	5	134	1,266	0.0097	2.1	30	0.54	0.10	0.16	2.38	3.57	3.66
NEX	150R	20.7	0.10	5	134	1,379	0.0096	2.0	30	0.53	0.10	0.18	1.97	2.82	2.89
NEX	17B	39.1	0.09	5	134	1,212	0.0083	2.0	30	0.51	0.10	0.17	3.39	4.94	5.06
NEX	159S	39.3	0.10	5	134	2,302	0.0110	1.9	30	0.50	0.10	0.18	3.54	5.04	5.16
NEX	161S	36.7	0.10	5	134	2,012	0.0121	1.9	30	0.48	0.10	0.18	3.17	4.50	4.61
NEX	163T	16.1	0.10	5	134	1,839	0.0088	2.0	30	0.51	0.10	0.18	1.48	2.11	2.16
NEX	165T	28.5	0.10	5	134	887	0.0119	2.0	30	0.51	0.10	0.18	2.62	3.73	3.83
NEX	167T	38.0	0.10	5	134	1,078	0.0088	1.9	30	0.48	0.10	0.18	3.28	4.66	4.77
NEX	169T	39.8	0.10	5	134	1,337	0.0120	1.9	30	0.48	0.10	0.18	3.44	4.88	5.00
NEX	171T	29.2	0.10	5	134	1,813	0.0098	1.9	30	0.48	0.10	0.18	2.52	3.58	3.67
NEX	177U	29.4	0.10	5	134	3,079	0.0082	1.9	30	0.48	0.10	0.18	2.54	3.60	3.69
NEX	178U	29.1	0.10	5	134	2,590	0.0098	1.9	30	0.48	0.10	0.18	2.51	3.56	3.65
NEX	180U	31.8	0.06	5	134	2,207	0.0112	1.9	30	0.48	0.10	0.15	2.29	3.48	3.57
NEX	182U	21.3	0.03	5	134	2,448	0.0081	1.9	30	0.48	0.10	0.12	1.23	2.06	2.11
Outlet 8V															
NEX	1V	23.8	0.08	5	134	1,412	0.0103	1.9	30	0.48	0.10	0.16	1.83	2.71	2.78
NEX	3V	39.4	0.03	5	134	1,046	0.0115	1.9	30	0.48	0.10	0.12	2.27	3.80	3.89
NEX	5V	39.9	0.06	5	134	892	0.0100	1.9	30	0.48	0.10	0.15	2.87	4.37	4.48
NEX	7V	40.0	0.06	5	134	964	0.0100	1.9	30	0.48	0.10	0.15	2.88	4.38	4.49
Outlet 73WZ															
NEX	1W	24.1	0.01	5	124	1,848	0.0105	3.0	30	0.78	0.10	0.11	2.07	3.81	3.90
NEX	3W	22.3	0.01	5	124	1,007	0.0107	2.9	30	0.75	0.10	0.11	1.84	3.37	3.46
NEX	5W	26.9	0.01	5	124	1,111	0.0099	2.8	30	0.72	0.10	0.11	2.13	3.89	3.99
NEX	7W	24.7	0.01	5	124	1,118	0.0071	2.7	30	0.69	0.10	0.11	1.87	3.40	3.49
NEX	9W	35.1	0.01	5	124	1,301	0.0100	2.6	30	0.66	0.10	0.11	2.55	4.61	4.72
NEX	11W	24.8	0.02	5	124	779	0.0075	2.5	30	0.65	0.10	0.12	1.93	3.34	3.43

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	13W	36.2	0.05	5	124	915	0.0114	2.5	30	0.63	0.10	0.14	3.19	5.13	5.25
NEX	15W	33.0	0.07	5	124	796	0.0139	2.3	30	0.60	0.10	0.16	3.17	4.79	4.91
NEX	17W	39.5	0.10	5	124	930	0.0120	2.2	30	0.57	0.10	0.18	4.05	5.83	5.97
NEX	19W	32.8	0.10	5	124	774	0.0094	2.1	30	0.54	0.10	0.18	3.19	4.57	4.68
NEX	21W	35.4	0.10	5	124	1,066	0.0082	2.1	30	0.54	0.10	0.18	3.44	4.93	5.05
NEX	23W	19.1	0.10	5	134	860	0.0063	2.0	30	0.53	0.10	0.18	1.82	2.60	2.67
NEX	25W	11.4	0.10	5	134	684	0.0073	2.0	30	0.53	0.10	0.18	1.09	1.56	1.60
NEX	27W	22.7	0.10	5	134	1,949	0.0103	2.0	30	0.51	0.10	0.18	2.08	2.97	3.04
NEX	4B	15.1	0.10	5	134	642	0.0098	2.0	30	0.51	0.10	0.18	1.39	1.98	2.03
NEX	38W	19.2	0.06	5	134	1,430	0.0096	1.9	30	0.50	0.10	0.15	1.44	2.20	2.25
NEX	2B	27.6	0.01	5	134	1,623	0.0080	1.9	30	0.48	0.10	0.11	1.46	2.54	2.61
NEX	29X	7.3	0.10	5	124	1,088	0.0076	2.1	30	0.54	0.10	0.18	0.71	1.02	1.04
NEX	31X	23.1	0.10	5	124	882	0.0135	2.0	30	0.53	0.10	0.18	2.20	3.15	3.23
NEX	33X	13.0	0.10	5	124	429	0.0129	2.0	30	0.51	0.10	0.18	1.19	1.70	1.74
NEX	35X	18.5	0.10	5	134	1,115	0.0128	2.0	30	0.51	0.10	0.18	1.70	2.42	2.48
NEX	40Y	6.4	0.10	5	124	970	0.0089	2.1	30	0.54	0.10	0.18	0.62	0.89	0.91
NEX	42Y	11.2	0.10	5	124	831	0.0114	2.1	30	0.54	0.10	0.18	1.09	1.56	1.60
NEX	44Y	15.6	0.10	5	124	883	0.0107	2.0	30	0.53	0.10	0.18	1.49	2.13	2.18
NEX	46Y	9.5	0.10	5	124	390	0.0168	2.0	30	0.51	0.10	0.18	0.87	1.24	1.27
NEX	48Y	13.1	0.10	5	134	658	0.0167	1.9	30	0.50	0.10	0.18	1.18	1.68	1.72
NEX	50Y	24.4	0.05	5	134	1,416	0.0105	1.9	30	0.50	0.10	0.14	1.71	2.69	2.75
NEX	53Z	12.8	0.10	5	124	1,273	0.0132	2.3	30	0.60	0.10	0.18	1.38	1.99	2.04
NEX	55Z	24.9	0.10	5	124	1,086	0.0117	2.3	30	0.59	0.10	0.18	2.64	3.81	3.91
NEX	57Z	25.8	0.10	5	124	863	0.0135	2.2	30	0.56	0.10	0.18	2.60	3.73	3.83
NEX	59Z	30.1	0.10	5	124	922	0.0123	2.1	30	0.54	0.10	0.18	2.93	4.19	4.30
NEX	61Z	28.0	0.10	5	124	907	0.0102	2.0	30	0.53	0.10	0.18	2.67	3.82	3.91
NEX	63Z	32.7	0.10	5	124	1,048	0.0113	2.0	30	0.53	0.10	0.18	3.12	4.46	4.57
NEX	65Z	25.7	0.05	5	134	1,003	0.0124	2.0	30	0.51	0.10	0.14	1.83	2.88	2.96
NEX	67Z	9.1	0.01	5	134	399	0.0147	2.0	30	0.51	0.10	0.11	0.51	0.90	0.92
NEX	69Z	24.4	0.01	5	134	1,072	0.0128	1.9	30	0.50	0.10	0.11	1.34	2.35	2.41
NEX	71Z	27.0	0.01	5	134	1,351	0.0092	1.9	30	0.48	0.10	0.11	1.43	2.49	2.55
Outlet 110A															
NEX	101A	8.2	0.10	5	124	1,080	0.0117	2.3	30	0.60	0.10	0.18	0.89	1.28	1.32
NEX	103A	17.4	0.10	5	124	846	0.0126	2.2	30	0.57	0.10	0.18	1.79	2.57	2.64
NEX	105A	18.4	0.10	5	124	782	0.0142	2.2	30	0.56	0.10	0.18	1.85	2.66	2.73

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	107A	24.3	0.10	5	120	822	0.0118	2.1	30	0.54	0.10	0.18	2.36	3.38	3.47
NEX	109A	21.0	0.10	5	120	717	0.0102	2.1	30	0.54	0.10	0.18	2.04	2.92	3.00
Outlet 165B															
NEX	13B	30.0	0.01	5	124	1,041	0.0084	3.3	30	0.84	0.10	0.11	2.77	5.14	5.27
NEX	14B	22.1	0.01	5	134	2,097	0.0097	3.3	30	0.86	0.10	0.11	2.09	3.89	3.98
NEX	20B	38.7	0.01	5	124	1,100	0.0114	3.4	30	0.87	0.10	0.11	3.70	6.89	7.06
NEX	21B	11.2	0.01	5	134	976	0.0116	3.4	30	0.87	0.10	0.11	1.07	1.99	2.04
NEX	28B	24.5	0.01	5	134	1,210	0.0123	3.6	30	0.93	0.10	0.11	2.51	4.70	4.82
NEX	29B	7.6	0.01	5	124	918	0.0157	3.6	30	0.93	0.10	0.11	0.78	1.46	1.50
NEX	35B	15.5	0.01	5	124	1,532	0.0248	3.8	30	0.98	0.10	0.11	1.67	3.15	3.23
NEX	36B	29.0	0.01	5	124	1,706	0.0265	3.9	30	0.99	0.10	0.11	3.16	5.96	6.11
NEX	100B	67.1	0.01	5	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	5	124	1,058	0.0457	4.0	30	1.02	0.10	0.11	2.92	5.52	5.66
NEX	104B	24.8	0.01	5	124	1,470	0.0295	3.9	30	0.99	0.10	0.11	2.70	5.09	5.22
NEX	106B	18.1	0.01	5	124	959	0.0182	3.7	30	0.96	0.10	0.11	1.91	3.59	3.68
NEX	118B	34.1	0.01	5	124	944	0.0135	3.5	30	0.90	0.10	0.11	3.38	6.31	6.47
NEX	142B	27.0	0.01	5	124	872	0.0100	3.2	30	0.83	0.10	0.11	2.47	4.57	4.69
NEX	144B	24.7	0.01	5	124	1,127	0.0100	3.1	30	0.80	0.10	0.11	2.17	4.01	4.11
NEX	146B	26.0	0.01	5	124	1,083	0.0087	3.0	30	0.77	0.10	0.11	2.20	4.05	4.15
NEX	148B	22.6	0.01	5	124	872	0.0064	2.9	30	0.74	0.10	0.11	1.84	3.37	3.45
NEX	150B	28.5	0.01	5	124	1,358	0.0100	2.7	30	0.69	0.10	0.11	2.16	3.93	4.03
NEX	152B	23.4	0.01	5	124	1,217	0.0094	2.6	30	0.66	0.10	0.11	1.70	3.07	3.15
NEX	154B	20.9	0.02	5	124	807	0.0117	2.5	30	0.63	0.10	0.12	1.58	2.72	2.79
NEX	156B	26.1	0.05	5	124	966	0.0109	2.4	30	0.62	0.10	0.14	2.27	3.64	3.73
NEX	158B	26.4	0.05	5	124	973	0.0103	2.3	30	0.60	0.10	0.14	2.22	3.55	3.64
NEX	160B	29.7	0.05	5	124	1,044	0.0088	2.3	30	0.59	0.10	0.14	2.45	3.91	4.01
NEX	162B	27.9	0.07	5	124	1,101	0.0100	2.2	30	0.57	0.10	0.16	2.54	3.83	3.92
NEX	164B	25.2	0.10	5	124	1,034	0.0097	2.2	30	0.57	0.10	0.18	2.59	3.72	3.82
NEX	108C	959.0	0.01	5	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	5	124	1,568	0.0397	3.9	30	1.01	0.10	0.11	4.41	8.34	8.55
NEX	115C	12.0	0.01	5	124	949	0.0196	3.7	30	0.96	0.10	0.11	1.27	2.39	2.45
NEX	112D	37.7	0.01	5	124	2,150	0.0278	3.9	30	1.01	0.10	0.11	4.19	7.92	8.12
NEX	120E	31.1	0.01	5	124	2,049	0.0310	3.9	30	0.99	0.10	0.11	3.39	6.39	6.55
NEX	122E	18.9	0.01	5	124	866	0.0304	3.8	30	0.98	0.10	0.11	2.04	3.84	3.94
NEX	124E	37.4	0.01	5	134	1,753	0.0175	3.7	30	0.95	0.10	0.11	3.91	7.34	7.53

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
5-YEAR STORM															
NEX	126E	21.3	0.01	5	134	919	0.0177	3.6	30	0.92	0.10	0.11	2.16	4.04	4.14
NEX	128E	16.6	0.01	5	134	904	0.0144	3.5	30	0.90	0.10	0.11	1.64	3.07	3.14
NEX	131F	13.6	0.01	5	134	906	0.0318	3.8	30	0.98	0.10	0.11	1.47	2.77	2.84
NEX	133F	26.1	0.01	5	134	1,224	0.0214	3.7	30	0.96	0.10	0.11	2.76	5.19	5.32
NEX	135F	37.2	0.01	5	134	1,787	0.0163	3.6	30	0.93	0.10	0.11	3.81	7.14	7.32
NEX	137F	24.5	0.01	5	134	979	0.0194	3.5	30	0.90	0.10	0.11	2.43	4.54	4.65
NEX	139F	14.3	0.01	5	134	790	0.0144	3.4	30	0.89	0.10	0.11	1.40	2.61	2.68

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	10	124	2,398	0.0092	3.0	30	0.77	0.10	0.11	3.39	6.23	6.39
NEX	3A	39.8	0.01	10	124	1,498	0.0097	2.7	30	0.70	0.10	0.11	3.06	5.57	5.71
NEX	5A	38.3	0.01	10	124	1,253	0.0091	2.6	30	0.66	0.10	0.11	2.78	5.03	5.15
NEX	7A	32.4	0.01	10	124	1,114	0.0101	2.5	30	0.64	0.10	0.11	2.28	4.11	4.21
NEX	9A	27.7	0.07	10	124	1,242	0.0087	2.4	30	0.62	0.10	0.16	2.75	4.17	4.27
NEX	11A	33.9	0.10	10	124	1,469	0.0099	2.4	30	0.62	0.10	0.18	3.78	5.47	5.61
NEX	13A	38.9	0.10	10	134	1,177	0.0087	2.4	30	0.61	0.10	0.18	4.27	6.18	6.33
NEX	15A	38.3	0.10	10	134	994	0.0104	2.3	30	0.59	0.10	0.18	4.07	5.87	6.02
Outlet 6B															
NEX	1B	22.1	0.10	10	124	2,664	0.0093	2.4	30	0.62	0.10	0.18	2.47	3.57	3.66
NEX	3B	39.9	0.10	10	124	1,443	0.0124	2.3	30	0.59	0.10	0.18	4.24	6.11	6.27
NEX	5B	39.0	0.04	10	124	732	0.0103	2.3	30	0.59	0.10	0.13	2.99	4.93	5.06
Outlet 110CG															
NEX	1C	17.8	0.01	10	124	1,591	0.0201	4.4	30	1.14	0.10	0.11	2.23	4.27	4.38
NEX	3C	15.5	0.01	10	124	1,045	0.0180	4.3	30	1.10	0.10	0.11	1.88	3.58	3.67
NEX	5C	29.5	0.01	10	124	1,347	0.0173	4.1	30	1.06	0.10	0.11	3.44	6.53	6.70
NEX	7C	25.1	0.01	10	124	1,037	0.0175	4.1	30	1.05	0.10	0.11	2.90	5.50	5.64
NEX	9C	20.7	0.01	10	124	733	0.0164	4.0	30	1.03	0.10	0.11	2.35	4.45	4.56
NEX	11C	25.8	0.01	10	124	713	0.0162	3.9	30	1.01	0.10	0.11	2.87	5.42	5.56
NEX	13C	31.9	0.01	10	124	939	0.0156	3.9	30	1.01	0.10	0.11	3.54	6.70	6.86
NEX	15C	34.6	0.01	10	124	903	0.0126	3.9	30	0.99	0.10	0.11	3.77	7.11	7.29
NEX	17C	32.8	0.01	10	124	1,112	0.0142	3.7	30	0.95	0.10	0.11	3.43	6.44	6.60
NEX	19C	23.2	0.01	10	124	1,160	0.0121	3.6	30	0.92	0.10	0.11	2.35	4.40	4.51
NEX	21C	29.7	0.01	10	124	1,549	0.0113	3.4	30	0.86	0.10	0.11	2.81	5.23	5.36
NEX	23C	35.4	0.01	10	124	1,993	0.0106	3.0	30	0.77	0.10	0.11	3.00	5.51	5.65
NEX	25C	28.1	0.01	10	124	1,765	0.0089	2.8	30	0.72	0.10	0.11	2.23	4.07	4.17
NEX	27C	35.0	0.01	10	124	1,922	0.0082	2.6	30	0.66	0.10	0.11	2.54	4.59	4.71
NEX	29C	34.0	0.01	10	124	1,457	0.0104	2.5	30	0.64	0.10	0.11	2.39	4.31	4.42
NEX	31C	29.3	0.01	10	124	1,251	0.0108	2.4	30	0.62	0.10	0.11	2.00	3.59	3.68
NEX	33C	35.6	0.10	10	124	2,107	0.0110	2.4	30	0.61	0.10	0.18	3.91	5.65	5.79
NEX	109C	21.4	0.10	10	124	2,279	0.0094	2.3	30	0.59	0.10	0.18	2.27	3.28	3.36
NEX	35D	16.7	0.01	10	134	1,299	0.0130	3.7	30	0.95	0.10	0.11	1.75	3.28	3.37
NEX	37D	29.0	0.01	10	124	1,308	0.0138	3.6	30	0.92	0.10	0.11	2.93	5.49	5.63
NEX	39D	29.9	0.01	10	124	1,530	0.0105	3.4	30	0.88	0.10	0.11	2.89	5.39	5.53

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	41D	21.4	0.01	10	124	1,185	0.0107	3.2	30	0.83	0.10	0.11	1.95	3.62	3.71
NEX	43D	26.1	0.01	10	124	1,524	0.0106	3.0	30	0.77	0.10	0.11	2.21	4.06	4.16
NEX	45D	30.2	0.01	10	134	1,697	0.0084	2.9	30	0.73	0.10	0.11	2.43	4.44	4.55
NEX	47D	30.2	0.01	10	134	1,239	0.0099	2.6	30	0.66	0.10	0.11	2.19	3.96	4.06
NEX	49D	39.0	0.01	10	134	1,500	0.0087	2.5	30	0.64	0.10	0.11	2.75	4.95	5.07
NEX	51D	31.8	0.05	10	134	1,258	0.0114	2.4	30	0.62	0.10	0.14	2.76	4.43	4.54
NEX	53D	23.0	0.10	10	134	1,118	0.0076	2.4	30	0.62	0.10	0.18	2.57	3.72	3.81
NEX	55D	14.6	0.10	10	124	1,256	0.0099	2.4	30	0.61	0.10	0.18	1.60	2.32	2.37
NEX	58E	12.6	0.10	10	124	1,440	0.0115	2.4	30	0.61	0.10	0.18	1.38	2.00	2.05
NEX	60E	28.7	0.10	10	124	3,334	0.0115	2.3	30	0.59	0.10	0.18	3.05	4.40	4.51
NEX	62F	16.5	0.01	10	124	1,673	0.0210	4.4	30	1.12	0.10	0.11	2.03	3.88	3.98
NEX	64F	24.0	0.01	10	124	955	0.0200	4.3	30	1.10	0.10	0.11	2.90	5.53	5.67
NEX	66F	33.9	0.01	10	124	1,251	0.0183	4.1	30	1.06	0.10	0.11	3.95	7.51	7.69
NEX	68F	29.6	0.01	10	124	1,122	0.0174	4.1	30	1.05	0.10	0.11	3.42	6.49	6.65
NEX	70F	25.9	0.01	10	124	874	0.0146	4.0	30	1.03	0.10	0.11	2.93	5.55	5.69
NEX	72F	26.7	0.01	10	124	907	0.0150	3.9	30	1.01	0.10	0.11	2.97	5.61	5.75
NEX	74F	29.9	0.01	10	124	876	0.0140	3.9	30	0.99	0.10	0.11	3.26	6.15	6.30
NEX	76F	39.5	0.01	10	124	987	0.0160	3.7	30	0.95	0.10	0.11	4.13	7.76	7.95
NEX	78F	38.8	0.01	10	124	900	0.0130	3.6	30	0.92	0.10	0.11	3.93	7.36	7.54
NEX	80F	39.6	0.01	10	124	831	0.0143	3.4	30	0.88	0.10	0.11	3.83	7.14	7.32
NEX	82F	39.9	0.01	10	124	829	0.0121	3.3	30	0.84	0.10	0.11	3.69	6.84	7.01
NEX	84F	39.8	0.01	10	124	853	0.0117	3.1	30	0.81	0.10	0.11	3.55	6.56	6.72
NEX	86F	39.1	0.01	10	124	1,094	0.0099	3.1	30	0.81	0.10	0.11	3.48	6.43	6.60
NEX	88F	22.9	0.01	10	124	845	0.0078	3.0	30	0.77	0.10	0.11	1.94	3.57	3.65
NEX	90F	36.2	0.01	10	124	1,675	0.0088	2.8	30	0.72	0.10	0.11	2.87	5.24	5.37
NEX	92F	23.7	0.01	10	124	1,298	0.0095	2.6	30	0.66	0.10	0.11	1.72	3.11	3.19
NEX	94F	17.9	0.01	10	124	1,020	0.0084	2.5	30	0.64	0.10	0.11	1.26	2.27	2.33
NEX	96F	22.5	0.01	10	124	1,387	0.0064	2.4	30	0.62	0.10	0.11	1.53	2.75	2.82
NEX	98F	21.4	0.01	10	124	1,222	0.0099	2.4	30	0.62	0.10	0.11	1.46	2.62	2.69
NEX	100F	16.7	0.10	10	124	1,247	0.0115	2.4	30	0.61	0.10	0.18	1.83	2.65	2.71
NEX	102F	23.0	0.10	10	124	3,287	0.0111	2.3	30	0.59	0.10	0.18	2.44	3.52	3.61
NEX	104G	18.2	0.10	10	134	1,898	0.0104	2.4	30	0.61	0.10	0.18	2.00	2.89	2.96
NEX	106G	39.9	0.07	10	134	2,469	0.0090	2.3	30	0.59	0.10	0.16	3.77	5.69	5.83
Outlet 4H															
NEX	1H	19.0	0.10	10	134	1,718	0.0090	2.4	30	0.61	0.10	0.18	2.09	3.02	3.10

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	3H	39.5	0.03	10	134	1,850	0.0112	2.3	30	0.59	0.10	0.12	2.80	4.79	4.91
Outlet 63IJ															
NEX	1I	10.8	0.01	10	124	1,416	0.0169	4.1	30	1.06	0.10	0.11	1.26	2.39	2.45
NEX	3I	18.1	0.01	10	124	929	0.0163	4.1	30	1.05	0.10	0.11	2.09	3.97	4.07
NEX	5I	12.8	0.01	10	124	459	0.0169	4.1	30	1.05	0.10	0.11	1.48	2.81	2.88
NEX	7I	16.5	0.01	10	134	616	0.0136	4.0	30	1.03	0.10	0.11	1.87	3.54	3.63
NEX	9I	25.9	0.01	10	134	879	0.0149	4.0	30	1.03	0.10	0.11	2.93	5.55	5.69
NEX	11I	26.8	0.01	10	134	968	0.0127	3.9	30	1.01	0.10	0.11	2.98	5.63	5.77
NEX	13I	31.1	0.01	10	134	1,180	0.0126	3.8	30	0.97	0.10	0.11	3.32	6.25	6.41
NEX	15I	37.7	0.01	10	134	1,443	0.0129	3.7	30	0.95	0.10	0.11	3.94	7.40	7.59
NEX	17I	27.6	0.01	10	134	900	0.0119	3.5	30	0.90	0.10	0.11	2.73	5.10	5.23
NEX	19I	25.5	0.01	10	134	838	0.0125	3.4	30	0.88	0.10	0.11	2.47	4.60	4.72
NEX	21I	37.2	0.01	10	134	1,165	0.0103	3.3	30	0.84	0.10	0.11	3.44	6.38	6.54
NEX	23I	34.3	0.01	10	134	1,034	0.0107	3.1	30	0.81	0.10	0.11	3.06	5.65	5.79
NEX	25I	38.0	0.01	10	134	1,049	0.0101	3.0	30	0.77	0.10	0.11	3.22	5.92	6.07
NEX	27I	39.5	0.01	10	134	2,077	0.0093	2.7	30	0.70	0.10	0.11	3.04	5.53	5.67
NEX	29I	29.4	0.05	10	134	1,661	0.0096	2.5	30	0.64	0.10	0.14	2.63	4.23	4.34
NEX	31I	39.6	0.10	10	134	1,306	0.0098	2.4	30	0.62	0.10	0.18	4.42	6.40	6.56
NEX	33I	39.3	0.18	10	134	1,279	0.0066	2.4	30	0.62	0.10	0.24	5.85	7.67	7.86
NEX	35I	26.7	0.10	10	134	878	0.0114	2.4	30	0.61	0.10	0.18	2.93	4.24	4.34
NEX	37I	37.9	0.06	10	134	1,809	0.0076	2.3	30	0.59	0.10	0.15	3.35	5.20	5.33
NEX	39J	27.8	0.01	10	134	1,645	0.0119	3.7	30	0.95	0.10	0.11	2.91	5.46	5.60
NEX	41J	18.8	0.01	10	134	760	0.0129	3.6	30	0.92	0.10	0.11	1.90	3.56	3.65
NEX	43J	32.3	0.01	10	134	1,022	0.0128	3.5	30	0.90	0.10	0.11	3.20	5.98	6.13
NEX	45J	32.3	0.01	10	134	1,126	0.0115	3.4	30	0.86	0.10	0.11	3.06	5.69	5.83
NEX	47J	27.3	0.01	10	134	1,116	0.0106	3.1	30	0.81	0.10	0.11	2.43	4.49	4.61
NEX	49J	22.5	0.01	10	134	1,019	0.0104	3.0	30	0.77	0.10	0.11	1.91	3.51	3.59
NEX	51J	18.6	0.01	10	134	1,085	0.0098	2.7	30	0.70	0.10	0.11	1.43	2.60	2.67
NEX	53J	35.3	0.05	10	134	1,400	0.0103	2.7	30	0.70	0.10	0.14	3.46	5.61	5.75
NEX	55J	40.0	0.10	10	134	1,510	0.0079	2.6	30	0.66	0.10	0.18	4.75	6.91	7.08
NEX	57J	40.0	0.10	10	134	1,410	0.0090	2.4	30	0.62	0.10	0.18	4.46	6.46	6.62
NEX	59J	37.3	0.29	10	134	1,434	0.0091	2.4	30	0.61	0.10	0.33	7.51	9.00	9.23
NEX	61J	28.5	0.10	10	134	2,082	0.0073	2.3	30	0.59	0.10	0.18	3.03	4.37	4.48
Outlet 184KU															
NEX	1K	464.4	0.01	10	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	3K	21.5	0.01	10	124	571	0.0305	4.6	30	1.17	0.10	0.11	2.77	5.31	5.44
NEX	5K	39.6	0.01	10	124	1,014	0.0204	4.5	30	1.16	0.10	0.11	5.05	9.68	9.92
NEX	7K	39.6	0.01	10	124	1,054	0.0183	4.4	30	1.14	0.10	0.11	4.97	9.50	9.74
NEX	9K	30.7	0.01	10	134	957	0.0161	4.3	30	1.10	0.10	0.11	3.71	7.08	7.26
NEX	11K	33.2	0.01	10	134	1,511	0.0147	4.2	30	1.08	0.10	0.11	3.94	7.50	7.69
NEX	83B	26.8	0.01	10	134	709	0.0130	4.0	30	1.03	0.10	0.11	3.04	5.75	5.90
NEX	24K	30.9	0.01	10	134	778	0.0132	4.0	30	1.03	0.10	0.11	3.50	6.63	6.80
NEX	26K	32.3	0.01	10	134	881	0.0107	4.0	30	1.03	0.10	0.11	3.66	6.93	7.11
NEX	28K	28.9	0.01	10	134	934	0.0105	3.9	30	1.01	0.10	0.11	3.21	6.07	6.22
NEX	30K	21.2	0.01	10	134	853	0.0132	3.9	30	0.99	0.10	0.11	2.31	4.36	4.47
NEX	64K	31.4	0.01	10	134	784	0.0105	3.9	30	1.01	0.10	0.11	3.49	6.60	6.76
NEX	66K	37.2	0.01	10	124	770	0.0108	3.9	30	0.99	0.10	0.11	4.05	7.64	7.83
NEX	68K	34.7	0.01	10	124	992	0.0100	3.7	30	0.95	0.10	0.11	3.63	6.82	6.99
NEX	70K	19.1	0.01	10	124	975	0.0088	3.6	30	0.92	0.10	0.11	1.93	3.62	3.71
NEX	72K	10.9	0.01	10	124	715	0.0070	3.5	30	0.90	0.10	0.11	1.08	2.02	2.07
NEX	74K	24.2	0.01	10	124	1,168	0.0128	3.4	30	0.88	0.10	0.11	2.34	4.36	4.47
NEX	106K	32.1	0.01	10	124	913	0.0110	3.4	30	0.86	0.10	0.11	3.04	5.65	5.79
NEX	108K	37.7	0.01	10	124	1,081	0.0100	3.3	30	0.84	0.10	0.11	3.48	6.46	6.62
NEX	110K	39.4	0.01	10	124	1,044	0.0124	3.1	30	0.81	0.10	0.11	3.51	6.49	6.65
NEX	112K	39.8	0.01	10	124	1,121	0.0111	3.0	30	0.77	0.10	0.11	3.37	6.20	6.35
NEX	114K	40.0	0.01	10	124	960	0.0095	2.9	30	0.73	0.10	0.11	3.21	5.87	6.02
NEX	116K	39.8	0.02	10	124	919	0.0099	2.7	30	0.70	0.10	0.12	3.34	5.82	5.97
NEX	118K	39.8	0.07	10	134	835	0.0198	2.6	30	0.66	0.10	0.16	4.20	6.40	6.56
NEX	120K	22.4	0.09	10	134	1,042	0.0077	2.5	30	0.64	0.10	0.17	2.44	3.62	3.71
NEX	15B	39.1	0.09	10	134	1,212	0.0083	2.5	30	0.64	0.10	0.17	4.25	6.31	6.47
NEX	153K	38.8	0.08	10	134	2,066	0.0097	2.4	30	0.62	0.10	0.16	3.85	5.84	5.98
NEX	155K	27.3	0.09	10	134	1,710	0.0088	2.4	30	0.61	0.10	0.17	2.83	4.18	4.29
NEX	157K	22.1	0.10	10	134	1,697	0.0087	2.3	30	0.59	0.10	0.18	2.35	3.39	3.47
NEX	6B	39.7	0.10	10	134	1,115	0.0092	2.3	30	0.59	0.10	0.18	4.22	6.08	6.24
NEX	175K	28.5	0.10	10	134	1,834	0.0081	2.3	30	0.59	0.10	0.18	3.03	4.37	4.48
NEX	13L	28.8	0.01	10	134	659	0.0212	4.7	30	1.21	0.10	0.11	3.83	7.37	7.56
NEX	15L	24.8	0.01	10	134	724	0.0209	4.6	30	1.19	0.10	0.11	3.25	6.24	6.40
NEX	17L	25.3	0.01	10	134	1,152	0.0170	4.6	30	1.17	0.10	0.11	3.26	6.25	6.41
NEX	19L	21.3	0.01	10	134	1,374	0.0164	4.4	30	1.14	0.10	0.11	2.67	5.11	5.24
NEX	21L	17.9	0.01	10	134	1,523	0.0156	4.3	30	1.10	0.10	0.11	2.17	4.13	4.24

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	32M	935.0	0.90	10	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	10	134	1,319	0.0217	4.7	30	1.21	0.10	0.11	4.22	8.12	8.32
NEX	36M	29.5	0.01	10	134	1,114	0.0194	4.6	30	1.17	0.10	0.11	3.80	7.29	7.47
NEX	38M	27.9	0.01	10	134	1,014	0.0181	4.4	30	1.14	0.10	0.11	3.50	6.70	6.86
NEX	40M	39.2	0.01	10	134	1,409	0.0155	4.4	30	1.12	0.10	0.11	4.83	9.22	9.46
NEX	68B	23.0	0.01	10	134	885	0.0208	4.3	30	1.10	0.10	0.11	2.78	5.30	5.44
NEX	53M	18.1	0.01	10	134	1,259	0.0092	4.1	30	1.06	0.10	0.11	2.11	4.01	4.11
NEX	64B	24.1	0.01	10	134	934	0.0115	4.1	30	1.05	0.10	0.11	2.78	5.28	5.41
NEX	60M	21.5	0.01	10	134	1,075	0.0132	4.0	30	1.03	0.10	0.11	2.44	4.62	4.73
NEX	42N	959.0	0.01	10	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	10	134	684	0.0517	4.7	25	1.32	0.14	0.15	7.82	12.97	13.30
NEX	46N	38.9	0.01	10	134	702	0.0282	4.6	30	1.19	0.10	0.11	5.09	9.78	10.03
NEX	48N	37.9	0.01	10	134	938	0.0231	4.6	30	1.17	0.10	0.11	4.88	9.36	9.59
NEX	50N	32.3	0.01	10	134	1,933	0.0092	4.4	30	1.14	0.10	0.11	4.05	7.75	7.94
NEX	55O	35.7	0.01	10	134	2,369	0.0122	4.4	30	1.14	0.10	0.11	4.48	8.57	8.78
NEX	57O	19.0	0.01	10	134	1,288	0.0125	4.4	30	1.12	0.10	0.11	2.34	4.47	4.58
NEX	76P	199.8	0.01	10	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	10	124	1,220	0.0087	4.7	30	1.21	0.10	0.11	3.53	6.79	6.96
NEX	80P	39.7	0.01	10	134	2,419	0.0185	4.6	30	1.17	0.10	0.11	5.11	9.80	10.05
NEX	57B	40.0	0.01	10	134	949	0.0200	4.4	30	1.14	0.10	0.11	5.02	9.60	9.84
NEX	87P	40.0	0.01	10	134	856	0.0115	4.6	30	1.17	0.10	0.11	5.15	9.88	10.12
NEX	89P	40.0	0.01	10	134	1,066	0.0130	4.2	30	1.08	0.10	0.11	4.75	9.04	9.27
NEX	91P	40.0	0.01	10	134	1,323	0.0100	4.1	30	1.06	0.10	0.11	4.66	8.86	9.08
NEX	93P	38.5	0.01	10	134	1,231	0.0098	4.0	30	1.03	0.10	0.11	4.36	8.26	8.47
NEX	95P	32.9	0.01	10	124	853	0.0100	3.9	30	1.01	0.10	0.11	3.66	6.91	7.09
NEX	97P	32.3	0.01	10	124	903	0.0083	3.8	30	0.97	0.10	0.11	3.45	6.49	6.65
NEX	99P	36.0	0.01	10	124	1,173	0.0077	3.6	30	0.94	0.10	0.11	3.72	6.98	7.16
NEX	101P	22.9	0.01	10	124	832	0.0121	3.6	30	0.92	0.10	0.11	2.32	4.34	4.45
NEX	103P	12.6	0.01	10	124	949	0.0105	3.4	30	0.88	0.10	0.11	1.22	2.27	2.33
NEX	82Q	40.0	0.01	10	134	1,582	0.0272	4.7	30	1.21	0.10	0.11	5.32	10.24	10.50
NEX	84Q	40.0	0.01	10	134	1,847	0.0211	4.6	30	1.17	0.10	0.11	5.15	9.88	10.12
NEX	122R	21.6	0.01	10	134	1,940	0.0123	3.9	30	0.99	0.10	0.11	2.35	4.44	4.55
NEX	124R	32.5	0.01	10	134	1,189	0.0132	3.8	30	0.97	0.10	0.11	3.47	6.53	6.69
NEX	126R	23.9	0.01	10	134	803	0.0128	3.7	30	0.95	0.10	0.11	2.50	4.69	4.81
NEX	128R	28.8	0.01	10	134	966	0.0104	3.8	30	0.97	0.10	0.11	3.07	5.78	5.93

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	130R	29.3	0.01	10	134	795	0.0096	3.6	30	0.92	0.10	0.11	2.97	5.56	5.70
NEX	132R	27.5	0.01	10	134	759	0.0105	3.5	30	0.90	0.10	0.11	2.72	5.08	5.21
NEX	134R	27.3	0.01	10	134	740	0.0098	3.4	30	0.88	0.10	0.11	2.64	4.92	5.05
NEX	136R	29.4	0.01	10	134	849	0.0100	3.4	30	0.86	0.10	0.11	2.78	5.17	5.30
NEX	138R	36.9	0.01	10	134	960	0.0102	3.3	30	0.84	0.10	0.11	3.41	6.33	6.48
NEX	140R	27.6	0.01	10	134	705	0.0125	3.1	30	0.81	0.10	0.11	2.46	4.55	4.66
NEX	142R	36.0	0.01	10	134	966	0.0104	3.0	30	0.77	0.10	0.11	3.05	5.61	5.75
NEX	144R	39.6	0.01	10	134	1,078	0.0094	2.8	30	0.72	0.10	0.11	3.14	5.73	5.87
NEX	146R	27.4	0.01	10	134	693	0.0144	2.6	30	0.66	0.10	0.11	1.99	3.60	3.69
NEX	148R	27.6	0.08	10	134	1,266	0.0097	2.6	30	0.66	0.10	0.16	2.91	4.44	4.55
NEX	150R	20.7	0.10	10	134	1,379	0.0096	2.5	30	0.64	0.10	0.18	2.38	3.46	3.54
NEX	17B	39.1	0.09	10	134	1,212	0.0083	2.4	30	0.62	0.10	0.17	4.12	6.10	6.25
NEX	159S	39.3	0.10	10	134	2,302	0.0110	2.4	30	0.61	0.10	0.18	4.32	6.24	6.40
NEX	161S	36.7	0.10	10	134	2,012	0.0121	2.3	30	0.59	0.10	0.18	3.90	5.62	5.76
NEX	163T	16.1	0.10	10	134	1,839	0.0088	2.4	30	0.62	0.10	0.18	1.80	2.60	2.67
NEX	165T	28.5	0.10	10	134	887	0.0119	2.4	30	0.62	0.10	0.18	3.18	4.60	4.72
NEX	167T	38.0	0.10	10	134	1,078	0.0088	2.3	30	0.59	0.10	0.18	4.04	5.82	5.97
NEX	169T	39.8	0.10	10	134	1,337	0.0120	2.3	30	0.59	0.10	0.18	4.23	6.10	6.25
NEX	171T	29.2	0.10	10	134	1,813	0.0098	2.3	30	0.59	0.10	0.18	3.10	4.47	4.58
NEX	177U	29.4	0.10	10	134	3,079	0.0082	2.3	30	0.59	0.10	0.18	3.12	4.50	4.61
NEX	178U	29.1	0.10	10	134	2,590	0.0098	2.3	30	0.59	0.10	0.18	3.09	4.46	4.57
NEX	180U	31.8	0.06	10	134	2,207	0.0112	2.3	30	0.59	0.10	0.15	2.81	4.36	4.47
NEX	182U	21.3	0.03	10	134	2,448	0.0081	2.3	30	0.59	0.10	0.12	1.51	2.58	2.65
Outlet 8V															
NEX	1V	23.8	0.08	10	134	1,412	0.0103	2.3	30	0.59	0.10	0.16	2.25	3.39	3.48
NEX	3V	39.4	0.03	10	134	1,046	0.0115	2.3	30	0.59	0.10	0.12	2.79	4.78	4.90
NEX	5V	39.9	0.06	10	134	892	0.0100	2.3	30	0.59	0.10	0.15	3.53	5.47	5.61
NEX	7V	40.0	0.06	10	134	964	0.0100	2.3	30	0.59	0.10	0.15	3.54	5.49	5.62
Outlet 73WZ															
NEX	1W	24.1	0.01	10	124	1,848	0.0105	3.7	30	0.95	0.10	0.11	2.52	4.73	4.85
NEX	3W	22.3	0.01	10	124	1,007	0.0107	3.6	30	0.92	0.10	0.11	2.26	4.23	4.33
NEX	5W	26.9	0.01	10	124	1,111	0.0099	3.4	30	0.88	0.10	0.11	2.60	4.85	4.97
NEX	7W	24.7	0.01	10	124	1,118	0.0071	3.3	30	0.84	0.10	0.11	2.28	4.23	4.34
NEX	9W	35.1	0.01	10	124	1,301	0.0100	3.1	30	0.81	0.10	0.11	3.13	5.78	5.93
NEX	11W	24.8	0.02	10	124	779	0.0075	3.1	30	0.79	0.10	0.12	2.35	4.15	4.25

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	13W	36.2	0.05	10	124	915	0.0114	3.0	30	0.77	0.10	0.14	3.90	6.38	6.54
NEX	15W	33.0	0.07	10	124	796	0.0139	2.9	30	0.73	0.10	0.16	3.85	5.92	6.07
NEX	17W	39.5	0.10	10	124	930	0.0120	2.7	30	0.70	0.10	0.18	4.98	7.28	7.46
NEX	19W	32.8	0.10	10	124	774	0.0094	2.6	30	0.66	0.10	0.18	3.90	5.67	5.81
NEX	21W	35.4	0.10	10	124	1,066	0.0082	2.6	30	0.66	0.10	0.18	4.21	6.12	6.28
NEX	23W	19.1	0.10	10	134	860	0.0063	2.5	30	0.64	0.10	0.18	2.20	3.19	3.27
NEX	25W	11.4	0.10	10	134	684	0.0073	2.5	30	0.64	0.10	0.18	1.31	1.90	1.95
NEX	27W	22.7	0.10	10	134	1,949	0.0103	2.4	30	0.62	0.10	0.18	2.53	3.66	3.76
NEX	4B	15.1	0.10	10	134	642	0.0098	2.4	30	0.62	0.10	0.18	1.69	2.44	2.51
NEX	38W	19.2	0.06	10	134	1,430	0.0096	2.4	30	0.61	0.10	0.15	1.76	2.73	2.80
NEX	2B	27.6	0.01	10	134	1,623	0.0080	2.3	30	0.59	0.10	0.11	1.79	3.20	3.28
NEX	29X	7.3	0.10	10	124	1,088	0.0076	2.6	30	0.66	0.10	0.18	0.87	1.26	1.30
NEX	31X	23.1	0.10	10	124	882	0.0135	2.5	30	0.64	0.10	0.18	2.66	3.86	3.96
NEX	33X	13.0	0.10	10	124	429	0.0129	2.4	30	0.62	0.10	0.18	1.45	2.10	2.15
NEX	35X	18.5	0.10	10	134	1,115	0.0128	2.4	30	0.62	0.10	0.18	2.06	2.99	3.06
NEX	40Y	6.4	0.10	10	124	970	0.0089	2.6	30	0.66	0.10	0.18	0.76	1.11	1.13
NEX	42Y	11.2	0.10	10	124	831	0.0114	2.6	30	0.66	0.10	0.18	1.33	1.94	1.98
NEX	44Y	15.6	0.10	10	124	883	0.0107	2.5	30	0.64	0.10	0.18	1.80	2.61	2.68
NEX	46Y	9.5	0.10	10	124	390	0.0168	2.4	30	0.62	0.10	0.18	1.06	1.53	1.57
NEX	48Y	13.1	0.10	10	134	658	0.0167	2.4	30	0.61	0.10	0.18	1.44	2.08	2.13
NEX	50Y	24.4	0.05	10	134	1,416	0.0105	2.4	30	0.61	0.10	0.14	2.08	3.33	3.42
NEX	53Z	12.8	0.10	10	124	1,273	0.0132	2.9	30	0.73	0.10	0.18	1.68	2.46	2.53
NEX	55Z	24.9	0.10	10	124	1,086	0.0117	2.8	30	0.72	0.10	0.18	3.23	4.73	4.85
NEX	57Z	25.8	0.10	10	124	863	0.0135	2.6	30	0.68	0.10	0.18	3.16	4.61	4.72
NEX	59Z	30.1	0.10	10	124	922	0.0123	2.6	30	0.66	0.10	0.18	3.58	5.21	5.34
NEX	61Z	28.0	0.10	10	124	907	0.0102	2.5	30	0.64	0.10	0.18	3.23	4.69	4.80
NEX	63Z	32.7	0.10	10	124	1,048	0.0113	2.5	30	0.64	0.10	0.18	3.77	5.47	5.61
NEX	65Z	25.7	0.05	10	134	1,003	0.0124	2.4	30	0.62	0.10	0.14	2.23	3.58	3.67
NEX	67Z	9.1	0.01	10	134	399	0.0147	2.4	30	0.62	0.10	0.11	0.62	1.11	1.14
NEX	69Z	24.4	0.01	10	134	1,072	0.0128	2.4	30	0.61	0.10	0.11	1.64	2.94	3.01
NEX	71Z	27.0	0.01	10	134	1,351	0.0092	2.3	30	0.59	0.10	0.11	1.75	3.13	3.20
Outlet 110A															
NEX	101A	8.2	0.10	10	124	1,080	0.0117	2.9	30	0.73	0.10	0.18	1.08	1.58	1.62
NEX	103A	17.4	0.10	10	124	846	0.0126	2.7	30	0.70	0.10	0.18	2.19	3.20	3.28
NEX	105A	18.4	0.10	10	124	782	0.0142	2.6	30	0.68	0.10	0.18	2.25	3.28	3.36

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	107A	24.3	0.10	10	120	822	0.0118	2.6	30	0.66	0.11	0.19	3.05	4.35	4.46
NEX	109A	21.0	0.10	10	120	717	0.0102	2.6	30	0.66	0.11	0.19	2.63	3.75	3.85
Outlet 165B															
NEX	13B	30.0	0.01	10	124	1,041	0.0084	4.0	30	1.03	0.10	0.11	3.40	6.44	6.60
NEX	14B	22.1	0.01	10	134	2,097	0.0097	4.1	30	1.05	0.10	0.11	2.55	4.84	4.96
NEX	20B	38.7	0.01	10	124	1,100	0.0114	4.1	30	1.06	0.10	0.11	4.51	8.57	8.78
NEX	21B	11.2	0.01	10	134	976	0.0116	4.1	30	1.06	0.10	0.11	1.31	2.48	2.55
NEX	28B	24.5	0.01	10	134	1,210	0.0123	4.4	30	1.14	0.10	0.11	3.07	5.88	6.02
NEX	29B	7.6	0.01	10	124	918	0.0157	4.4	30	1.14	0.10	0.11	0.95	1.82	1.87
NEX	35B	15.5	0.01	10	124	1,532	0.0248	4.6	30	1.19	0.10	0.11	2.03	3.90	4.00
NEX	36B	29.0	0.01	10	124	1,706	0.0265	4.7	30	1.21	0.10	0.11	3.86	7.43	7.61
NEX	100B	67.1	0.01	10	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	10	124	1,058	0.0457	4.9	30	1.25	0.10	0.11	3.58	6.91	7.08
NEX	104B	24.8	0.01	10	124	1,470	0.0295	4.7	30	1.21	0.10	0.11	3.30	6.35	6.51
NEX	106B	18.1	0.01	10	124	959	0.0182	4.6	30	1.17	0.10	0.11	2.33	4.47	4.58
NEX	118B	34.1	0.01	10	124	944	0.0135	4.3	30	1.10	0.10	0.11	4.13	7.87	8.07
NEX	142B	27.0	0.01	10	124	872	0.0100	3.9	30	1.01	0.10	0.11	3.00	5.67	5.81
NEX	144B	24.7	0.01	10	124	1,127	0.0100	3.8	30	0.97	0.10	0.11	2.64	4.97	5.09
NEX	146B	26.0	0.01	10	124	1,083	0.0087	3.6	30	0.94	0.10	0.11	2.69	5.05	5.17
NEX	148B	22.6	0.01	10	124	872	0.0064	3.5	30	0.90	0.10	0.11	2.24	4.18	4.29
NEX	150B	28.5	0.01	10	124	1,358	0.0100	3.3	30	0.84	0.10	0.11	2.63	4.88	5.00
NEX	152B	23.4	0.01	10	124	1,217	0.0094	3.1	30	0.81	0.10	0.11	2.08	3.85	3.94
NEX	154B	20.9	0.02	10	124	807	0.0117	3.0	30	0.77	0.10	0.12	1.93	3.40	3.48
NEX	156B	26.1	0.05	10	124	966	0.0109	2.9	30	0.75	0.10	0.14	2.74	4.47	4.59
NEX	158B	26.4	0.05	10	124	973	0.0103	2.9	30	0.73	0.10	0.14	2.70	4.40	4.51
NEX	160B	29.7	0.05	10	124	1,044	0.0088	2.8	30	0.72	0.10	0.14	2.99	4.87	4.99
NEX	162B	27.9	0.07	10	124	1,101	0.0100	2.7	30	0.70	0.10	0.16	3.12	4.78	4.90
NEX	164B	25.2	0.10	10	124	1,034	0.0097	2.7	30	0.70	0.10	0.18	3.18	4.64	4.76
NEX	108C	959.0	0.01	10	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	10	124	1,568	0.0397	4.8	30	1.23	0.10	0.11	5.37	10.35	10.61
NEX	115C	12.0	0.01	10	124	949	0.0196	4.6	30	1.17	0.10	0.11	1.54	2.96	3.03
NEX	112D	37.7	0.01	10	124	2,150	0.0278	4.8	30	1.23	0.10	0.11	5.10	9.83	10.08
NEX	120E	31.1	0.01	10	124	2,049	0.0310	4.7	30	1.21	0.10	0.11	4.14	7.97	8.17
NEX	122E	18.9	0.01	10	124	866	0.0304	4.6	30	1.19	0.10	0.11	2.47	4.75	4.87
NEX	124E	37.4	0.01	10	134	1,753	0.0175	4.5	30	1.16	0.10	0.11	4.77	9.14	9.37

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
10-YEAR STORM															
NEX	126E	21.3	0.01	10	134	919	0.0177	4.4	30	1.12	0.10	0.11	2.62	5.01	5.13
NEX	128E	16.6	0.01	10	134	904	0.0144	4.3	30	1.10	0.10	0.11	2.01	3.83	3.93
NEX	131F	13.6	0.01	10	134	906	0.0318	4.6	30	1.19	0.10	0.11	1.78	3.42	3.51
NEX	133F	26.1	0.01	10	134	1,224	0.0214	4.6	30	1.17	0.10	0.11	3.36	6.44	6.61
NEX	135F	37.2	0.01	10	134	1,787	0.0163	4.4	30	1.14	0.10	0.11	4.66	8.92	9.14
NEX	137F	24.5	0.01	10	134	979	0.0194	4.3	30	1.10	0.10	0.11	2.96	5.65	5.79
NEX	139F	14.3	0.01	10	134	790	0.0144	4.2	30	1.08	0.10	0.11	1.70	3.23	3.31

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	25	124	2,398	0.0092	3.7	30	0.95	0.10	0.11	4.18	7.85	8.05
NEX	3A	39.8	0.01	25	124	1,498	0.0097	3.3	30	0.86	0.10	0.11	3.77	7.01	7.18
NEX	5A	38.3	0.01	25	124	1,253	0.0091	3.2	30	0.81	0.10	0.11	3.41	6.30	6.46
NEX	7A	32.4	0.01	25	124	1,114	0.0101	3.1	30	0.79	0.10	0.11	2.82	5.19	5.32
NEX	9A	27.7	0.07	25	124	1,242	0.0087	3.0	30	0.77	0.10	0.16	3.41	5.27	5.40
NEX	11A	33.9	0.10	25	124	1,469	0.0099	3.0	30	0.77	0.10	0.18	4.70	6.92	7.09
NEX	13A	38.9	0.10	25	134	1,177	0.0087	2.9	30	0.74	0.10	0.18	5.18	7.60	7.79
NEX	15A	38.3	0.10	25	134	994	0.0104	2.8	30	0.72	0.10	0.18	4.96	7.27	7.45
Outlet 6B															
NEX	1B	22.1	0.10	25	124	2,664	0.0093	3.0	30	0.77	0.10	0.18	3.06	4.51	4.62
NEX	3B	39.9	0.10	25	124	1,443	0.0124	2.8	30	0.72	0.10	0.18	5.17	7.57	7.76
NEX	5B	39.0	0.04	25	124	732	0.0103	2.8	30	0.72	0.10	0.13	3.65	6.14	6.29
Outlet 110CG															
NEX	1C	17.8	0.01	25	124	1,591	0.0201	5.4	30	1.40	0.10	0.11	2.74	5.35	5.48
NEX	3C	15.5	0.01	25	124	1,045	0.0180	5.3	30	1.35	0.10	0.11	2.30	4.47	4.59
NEX	5C	29.5	0.01	25	124	1,347	0.0173	5.1	30	1.31	0.10	0.11	4.25	8.24	8.45
NEX	7C	25.1	0.01	25	124	1,037	0.0175	5.0	30	1.29	0.10	0.11	3.56	6.89	7.07
NEX	9C	20.7	0.01	25	124	733	0.0164	4.9	30	1.26	0.10	0.11	2.87	5.54	5.68
NEX	11C	25.8	0.01	25	124	713	0.0162	4.8	30	1.24	0.10	0.11	3.52	6.79	6.96
NEX	13C	31.9	0.01	25	124	939	0.0156	4.8	30	1.24	0.10	0.11	4.35	8.39	8.60
NEX	15C	34.6	0.01	25	124	903	0.0126	4.7	30	1.22	0.10	0.11	4.64	8.94	9.16
NEX	17C	32.8	0.01	25	124	1,112	0.0142	4.6	30	1.17	0.10	0.11	4.22	8.10	8.30
NEX	19C	23.2	0.01	25	124	1,160	0.0121	4.4	30	1.13	0.10	0.11	2.88	5.51	5.65
NEX	21C	29.7	0.01	25	124	1,549	0.0113	4.1	30	1.06	0.10	0.11	3.46	6.58	6.74
NEX	23C	35.4	0.01	25	124	1,993	0.0106	3.7	30	0.95	0.10	0.11	3.70	6.95	7.12
NEX	25C	28.1	0.01	25	124	1,765	0.0089	3.4	30	0.88	0.10	0.11	2.72	5.07	5.20
NEX	27C	35.0	0.01	25	124	1,922	0.0082	3.2	30	0.81	0.10	0.11	3.12	5.76	5.91
NEX	29C	34.0	0.01	25	124	1,457	0.0104	3.1	30	0.79	0.10	0.11	2.95	5.44	5.58
NEX	31C	29.3	0.01	25	124	1,251	0.0108	3.0	30	0.77	0.10	0.11	2.48	4.56	4.67
NEX	33C	35.6	0.10	25	124	2,107	0.0110	2.9	30	0.74	0.10	0.18	4.74	6.96	7.13
NEX	109C	21.4	0.10	25	124	2,279	0.0094	2.8	30	0.72	0.10	0.18	2.77	4.06	4.16
NEX	35D	16.7	0.01	25	134	1,299	0.0130	4.6	30	1.17	0.10	0.11	2.15	4.12	4.23
NEX	37D	29.0	0.01	25	124	1,308	0.0138	4.4	30	1.13	0.10	0.11	3.60	6.89	7.06
NEX	39D	29.9	0.01	25	124	1,530	0.0105	4.2	30	1.08	0.10	0.11	3.55	6.76	6.93

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	41D	21.4	0.01	25	124	1,185	0.0107	4.0	30	1.02	0.10	0.11	2.40	4.54	4.66
NEX	43D	26.1	0.01	25	124	1,524	0.0106	3.7	30	0.95	0.10	0.11	2.73	5.13	5.25
NEX	45D	30.2	0.01	25	134	1,697	0.0084	3.5	30	0.90	0.10	0.11	2.99	5.59	5.73
NEX	47D	30.2	0.01	25	134	1,239	0.0099	3.2	30	0.81	0.10	0.11	2.69	4.97	5.10
NEX	49D	39.0	0.01	25	134	1,500	0.0087	3.1	30	0.79	0.10	0.11	3.39	6.25	6.40
NEX	51D	31.8	0.05	25	134	1,258	0.0114	3.0	30	0.77	0.10	0.14	3.43	5.61	5.75
NEX	53D	23.0	0.10	25	134	1,118	0.0076	3.0	30	0.77	0.10	0.18	3.19	4.69	4.81
NEX	55D	14.6	0.10	25	124	1,256	0.0099	2.9	30	0.74	0.10	0.18	1.94	2.85	2.92
NEX	58E	12.6	0.10	25	124	1,440	0.0115	2.9	30	0.74	0.10	0.18	1.68	2.46	2.53
NEX	60E	28.7	0.10	25	124	3,334	0.0115	2.8	30	0.72	0.10	0.18	3.72	5.45	5.58
NEX	62F	16.5	0.01	25	124	1,673	0.0210	5.4	30	1.38	0.10	0.11	2.50	4.88	5.00
NEX	64F	24.0	0.01	25	124	955	0.0200	5.3	30	1.35	0.10	0.11	3.56	6.93	7.10
NEX	66F	33.9	0.01	25	124	1,251	0.0183	5.1	30	1.31	0.10	0.11	4.88	9.47	9.70
NEX	68F	29.6	0.01	25	124	1,122	0.0174	5.0	30	1.29	0.10	0.11	4.20	8.13	8.34
NEX	70F	25.9	0.01	25	124	874	0.0146	4.9	30	1.26	0.10	0.11	3.59	6.94	7.11
NEX	72F	26.7	0.01	25	124	907	0.0150	4.8	30	1.24	0.10	0.11	3.64	7.02	7.20
NEX	74F	29.9	0.01	25	124	876	0.0140	4.7	30	1.22	0.10	0.11	4.01	7.73	7.92
NEX	76F	39.5	0.01	25	124	987	0.0160	4.6	30	1.17	0.10	0.11	5.08	9.75	9.99
NEX	78F	38.8	0.01	25	124	900	0.0130	4.4	30	1.13	0.10	0.11	4.82	9.22	9.45
NEX	80F	39.6	0.01	25	124	831	0.0143	4.2	30	1.08	0.10	0.11	4.70	8.95	9.17
NEX	82F	39.9	0.01	25	124	829	0.0121	4.0	30	1.04	0.10	0.11	4.56	8.65	8.87
NEX	84F	39.8	0.01	25	124	853	0.0117	3.9	30	0.99	0.10	0.11	4.33	8.17	8.38
NEX	86F	39.1	0.01	25	124	1,094	0.0099	3.9	30	0.99	0.10	0.11	4.26	8.04	8.24
NEX	88F	22.9	0.01	25	124	845	0.0078	3.7	30	0.95	0.10	0.11	2.39	4.49	4.61
NEX	90F	36.2	0.01	25	124	1,675	0.0088	3.4	30	0.88	0.10	0.11	3.50	6.53	6.69
NEX	92F	23.7	0.01	25	124	1,298	0.0095	3.2	30	0.81	0.10	0.11	2.11	3.90	4.00
NEX	94F	17.9	0.01	25	124	1,020	0.0084	3.1	30	0.79	0.10	0.11	1.56	2.87	2.94
NEX	96F	22.5	0.01	25	124	1,387	0.0064	3.0	30	0.77	0.10	0.11	1.91	3.51	3.59
NEX	98F	21.4	0.01	25	124	1,222	0.0099	3.0	30	0.77	0.10	0.11	1.81	3.33	3.41
NEX	100F	16.7	0.10	25	124	1,247	0.0115	2.9	30	0.74	0.10	0.18	2.22	3.26	3.34
NEX	102F	23.0	0.10	25	124	3,287	0.0111	2.8	30	0.72	0.10	0.18	2.98	4.36	4.47
NEX	104G	18.2	0.10	25	134	1,898	0.0104	2.9	30	0.74	0.10	0.18	2.42	3.55	3.64
NEX	106G	39.9	0.07	25	134	2,469	0.0090	2.8	30	0.72	0.10	0.16	4.60	7.06	7.24
Outlet 4H															
NEX	1H	19.0	0.10	25	134	1,718	0.0090	2.9	30	0.74	0.10	0.18	2.53	3.71	3.81

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	3H	39.5	0.03	25	134	1,850	0.0112	2.8	30	0.72	0.10	0.12	3.41	5.96	6.11
Outlet 63IJ															
NEX	1I	10.8	0.01	25	124	1,416	0.0169	5.1	30	1.31	0.10	0.11	1.56	3.02	3.10
NEX	3I	18.1	0.01	25	124	929	0.0163	5.0	30	1.29	0.10	0.11	2.57	4.97	5.10
NEX	5I	12.8	0.01	25	124	459	0.0169	5.0	28	1.33	0.10	0.11	1.87	3.63	3.73
NEX	7I	16.5	0.01	25	134	616	0.0136	4.9	30	1.26	0.12	0.13	2.70	4.78	4.90
NEX	9I	25.9	0.01	25	134	879	0.0149	4.9	30	1.26	0.12	0.13	4.24	7.51	7.70
NEX	11I	26.8	0.01	25	134	968	0.0127	4.8	30	1.24	0.11	0.12	3.99	7.35	7.53
NEX	13I	31.1	0.01	25	134	1,180	0.0126	4.7	30	1.20	0.10	0.11	4.11	7.90	8.10
NEX	15I	37.7	0.01	25	134	1,443	0.0129	4.6	30	1.17	0.10	0.11	4.85	9.30	9.54
NEX	17I	27.6	0.01	25	134	900	0.0119	4.3	30	1.11	0.10	0.11	3.37	6.43	6.59
NEX	19I	25.5	0.01	25	134	838	0.0125	4.2	30	1.08	0.10	0.11	3.03	5.77	5.91
NEX	21I	37.2	0.01	25	134	1,165	0.0103	4.0	30	1.04	0.10	0.11	4.26	8.07	8.27
NEX	23I	34.3	0.01	25	134	1,034	0.0107	3.9	30	0.99	0.10	0.11	3.74	7.05	7.23
NEX	25I	38.0	0.01	25	134	1,049	0.0101	3.7	30	0.95	0.10	0.11	3.97	7.46	7.65
NEX	27I	39.5	0.01	25	134	2,077	0.0093	3.3	30	0.86	0.10	0.11	3.74	6.95	7.13
NEX	29I	29.4	0.05	25	134	1,661	0.0096	3.1	30	0.79	0.10	0.14	3.25	5.33	5.47
NEX	31I	39.6	0.10	25	134	1,306	0.0098	3.0	30	0.77	0.10	0.18	5.49	8.08	8.28
NEX	33I	39.3	0.18	25	134	1,279	0.0066	3.0	30	0.77	0.10	0.24	7.26	9.64	9.88
NEX	35I	26.7	0.10	25	134	878	0.0114	2.9	30	0.74	0.10	0.18	3.56	5.22	5.35
NEX	37I	37.9	0.06	25	134	1,809	0.0076	2.8	30	0.72	0.10	0.15	4.09	6.46	6.62
NEX	39J	27.8	0.01	25	134	1,645	0.0119	4.6	30	1.17	0.10	0.11	3.58	6.86	7.04
NEX	41J	18.8	0.01	25	134	760	0.0129	4.4	30	1.13	0.10	0.11	2.34	4.47	4.58
NEX	43J	32.3	0.01	25	134	1,022	0.0128	4.3	30	1.11	0.10	0.11	3.94	7.52	7.71
NEX	45J	32.3	0.01	25	134	1,126	0.0115	4.1	30	1.06	0.10	0.11	3.77	7.16	7.34
NEX	47J	27.3	0.01	25	134	1,116	0.0106	3.9	30	0.99	0.10	0.11	2.97	5.61	5.75
NEX	49J	22.5	0.01	25	134	1,019	0.0104	3.7	30	0.95	0.10	0.11	2.35	4.42	4.53
NEX	51J	18.6	0.01	25	134	1,085	0.0098	3.3	30	0.86	0.10	0.11	1.76	3.27	3.35
NEX	53J	35.3	0.05	25	134	1,400	0.0103	3.3	30	0.86	0.10	0.14	4.25	7.02	7.20
NEX	55J	40.0	0.10	25	134	1,510	0.0079	3.2	30	0.81	0.10	0.18	5.83	8.62	8.83
NEX	57J	40.0	0.10	25	134	1,410	0.0090	3.0	30	0.77	0.10	0.18	5.54	8.16	8.36
NEX	59J	37.3	0.29	25	134	1,434	0.0091	2.9	30	0.74	0.10	0.33	9.11	11.01	11.28
NEX	61J	28.5	0.10	25	134	2,082	0.0073	2.8	30	0.72	0.10	0.18	3.69	5.41	5.54
Outlet 184KU															
NEX	1K	464.4	0.01	25	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	3K	21.5	0.01	25	124	571	0.0305	5.6	18	1.84	0.18	0.19	7.52	11.48	11.77
NEX	5K	39.6	0.01	25	124	1,014	0.0204	5.5	30	1.42	0.10	0.11	6.19	12.09	12.39
NEX	7K	39.6	0.01	25	124	1,054	0.0183	5.4	30	1.40	0.10	0.11	6.10	11.90	12.20
NEX	9K	30.7	0.01	25	134	957	0.0161	5.3	30	1.35	0.14	0.15	6.22	10.33	10.59
NEX	11K	33.2	0.01	25	134	1,511	0.0147	5.2	30	1.33	0.14	0.15	6.62	10.99	11.26
NEX	83B	26.8	0.01	25	134	709	0.0130	4.9	30	1.26	0.12	0.13	4.39	7.77	7.97
NEX	24K	30.9	0.01	25	134	778	0.0132	4.9	30	1.26	0.12	0.13	5.06	8.96	9.19
NEX	26K	32.3	0.01	25	134	881	0.0107	4.9	30	1.26	0.12	0.13	5.29	9.37	9.60
NEX	28K	28.9	0.01	25	134	934	0.0105	4.8	30	1.24	0.11	0.12	4.30	7.92	8.12
NEX	30K	21.2	0.01	25	134	853	0.0132	4.7	30	1.22	0.11	0.12	3.10	5.71	5.85
NEX	64K	31.4	0.01	25	134	784	0.0105	4.8	30	1.24	0.11	0.12	4.67	8.60	8.82
NEX	66K	37.2	0.01	25	124	770	0.0108	4.7	30	1.22	0.10	0.11	4.99	9.61	9.85
NEX	68K	34.7	0.01	25	124	992	0.0100	4.6	30	1.17	0.10	0.11	4.47	8.57	8.78
NEX	70K	19.1	0.01	25	124	975	0.0088	4.4	30	1.13	0.10	0.11	2.37	4.53	4.65
NEX	72K	10.9	0.01	25	124	715	0.0070	4.3	30	1.11	0.10	0.11	1.33	2.54	2.60
NEX	74K	24.2	0.01	25	124	1,168	0.0128	4.2	30	1.08	0.10	0.11	2.87	5.47	5.60
NEX	106K	32.1	0.01	25	124	913	0.0110	4.1	30	1.06	0.10	0.11	3.74	7.11	7.29
NEX	108K	37.7	0.01	25	124	1,081	0.0100	4.0	30	1.04	0.10	0.11	4.31	8.17	8.38
NEX	110K	39.4	0.01	25	124	1,044	0.0124	3.9	30	0.99	0.10	0.11	4.29	8.09	8.30
NEX	112K	39.8	0.01	25	124	1,121	0.0111	3.7	30	0.95	0.10	0.11	4.16	7.81	8.01
NEX	114K	40.0	0.01	25	124	960	0.0095	3.5	30	0.90	0.10	0.11	3.96	7.40	7.58
NEX	116K	39.8	0.02	25	124	919	0.0099	3.3	30	0.86	0.10	0.12	4.11	7.31	7.49
NEX	118K	39.8	0.07	25	134	835	0.0198	3.2	30	0.81	0.10	0.16	5.16	8.00	8.20
NEX	120K	22.4	0.09	25	134	1,042	0.0077	3.1	30	0.79	0.10	0.17	3.01	4.54	4.65
NEX	15B	39.1	0.09	25	134	1,212	0.0083	3.1	30	0.79	0.10	0.17	5.25	7.92	8.12
NEX	153K	38.8	0.08	25	134	2,066	0.0097	3.0	30	0.77	0.10	0.16	4.78	7.38	7.56
NEX	155K	27.3	0.09	25	134	1,710	0.0088	2.9	30	0.74	0.10	0.17	3.43	5.15	5.28
NEX	157K	22.1	0.10	25	134	1,697	0.0087	2.8	30	0.72	0.10	0.18	2.86	4.19	4.30
NEX	6B	39.7	0.10	25	134	1,115	0.0092	2.8	30	0.72	0.10	0.18	5.15	7.54	7.73
NEX	175K	28.5	0.10	25	134	1,834	0.0081	2.8	30	0.72	0.10	0.18	3.69	5.41	5.54
NEX	13L	28.8	0.01	25	134	659	0.0212	5.8	14	2.13	0.33	0.34	20.86	26.00	26.65
NEX	15L	24.8	0.01	25	134	724	0.0209	5.7	16	1.97	0.30	0.31	15.15	19.37	19.85
NEX	17L	25.3	0.01	25	134	1,152	0.0170	5.6	30	1.44	0.17	0.18	6.56	10.09	10.34
NEX	19L	21.3	0.01	25	134	1,374	0.0164	5.4	30	1.40	0.16	0.17	5.07	7.98	8.18
NEX	21L	17.9	0.01	25	134	1,523	0.0156	5.3	30	1.35	0.14	0.15	3.62	6.02	6.17

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	32M	935.0	0.90	25	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	25	134	1,319	0.0217	5.8	30	1.49	0.19	0.20	9.45	13.95	14.29
NEX	36M	29.5	0.01	25	134	1,114	0.0194	5.6	30	1.44	0.17	0.18	7.65	11.77	12.06
NEX	38M	27.9	0.01	25	134	1,014	0.0181	5.4	30	1.40	0.16	0.17	6.64	10.45	10.71
NEX	40M	39.2	0.01	25	134	1,409	0.0155	5.4	30	1.38	0.15	0.16	8.66	13.99	14.34
NEX	68B	23.0	0.01	25	134	885	0.0208	5.3	30	1.35	0.14	0.15	4.66	7.74	7.93
NEX	53M	18.1	0.01	25	134	1,259	0.0092	5.1	30	1.31	0.13	0.14	3.32	5.69	5.83
NEX	64B	24.1	0.01	25	134	934	0.0115	5.0	30	1.29	0.13	0.14	4.35	7.44	7.63
NEX	60M	21.5	0.01	25	134	1,075	0.0132	4.9	30	1.26	0.12	0.13	3.52	6.23	6.39
NEX	42N	959.0	0.01	25	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	25	134	684	0.0517	5.8	12	2.29	0.36	0.37	33.47	40.79	41.81
NEX	46N	38.9	0.01	25	134	702	0.0282	5.7	14	2.10	0.33	0.34	27.77	34.60	35.46
NEX	48N	37.9	0.01	25	134	938	0.0231	5.6	22	1.67	0.25	0.26	16.46	22.15	22.71
NEX	50N	32.3	0.01	25	134	1,933	0.0092	5.4	30	1.40	0.16	0.17	7.69	12.10	12.41
NEX	55O	35.7	0.01	25	134	2,369	0.0122	5.4	30	1.40	0.16	0.17	8.50	13.38	13.71
NEX	57O	19.0	0.01	25	134	1,288	0.0125	5.4	30	1.38	0.15	0.16	4.20	6.78	6.95
NEX	76P	199.8	0.01	25	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	25	124	1,220	0.0087	5.8	30	1.49	0.12	0.13	5.13	9.22	9.45
NEX	80P	39.7	0.01	25	134	2,419	0.0185	5.6	30	1.44	0.17	0.18	10.29	15.83	16.23
NEX	57B	40.0	0.01	25	134	949	0.0200	5.4	29	1.42	0.17	0.18	10.22	15.71	16.10
NEX	87P	40.0	0.01	25	134	856	0.0115	5.6	27	1.52	0.20	0.21	12.77	18.51	18.97
NEX	89P	40.0	0.01	25	134	1,066	0.0130	5.2	30	1.33	0.14	0.15	7.98	13.24	13.58
NEX	91P	40.0	0.01	25	134	1,323	0.0100	5.1	30	1.31	0.13	0.14	7.34	12.57	12.88
NEX	93P	38.5	0.01	25	134	1,231	0.0098	4.9	30	1.26	0.12	0.13	6.31	11.17	11.45
NEX	95P	32.9	0.01	25	124	853	0.0100	4.8	30	1.24	0.10	0.11	4.49	8.66	8.87
NEX	97P	32.3	0.01	25	124	903	0.0083	4.7	30	1.20	0.10	0.11	4.26	8.20	8.40
NEX	99P	36.0	0.01	25	124	1,173	0.0077	4.5	30	1.15	0.10	0.11	4.55	8.72	8.93
NEX	101P	22.9	0.01	25	124	832	0.0121	4.4	30	1.13	0.10	0.11	2.85	5.44	5.58
NEX	103P	12.6	0.01	25	124	949	0.0105	4.2	30	1.08	0.10	0.11	1.50	2.85	2.92
NEX	82Q	40.0	0.01	25	134	1,582	0.0272	5.8	30	1.49	0.19	0.20	11.92	17.59	18.03
NEX	84Q	40.0	0.01	25	134	1,847	0.0211	5.6	30	1.44	0.17	0.18	10.37	15.95	16.35
NEX	122R	21.6	0.01	25	134	1,940	0.0123	4.7	30	1.22	0.11	0.12	3.16	5.81	5.96
NEX	124R	32.5	0.01	25	134	1,189	0.0132	4.7	30	1.20	0.10	0.11	4.29	8.25	8.46
NEX	126R	23.9	0.01	25	134	803	0.0128	4.6	30	1.17	0.10	0.11	3.08	5.90	6.05
NEX	128R	28.8	0.01	25	134	966	0.0104	4.7	30	1.20	0.10	0.11	3.80	7.31	7.49

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	130R	29.3	0.01	25	134	795	0.0096	4.4	30	1.13	0.10	0.11	3.64	6.96	7.13
NEX	132R	27.5	0.01	25	134	759	0.0105	4.3	30	1.11	0.10	0.11	3.36	6.41	6.57
NEX	134R	27.3	0.01	25	134	740	0.0098	4.2	30	1.08	0.10	0.11	3.24	6.17	6.32
NEX	136R	29.4	0.01	25	134	849	0.0100	4.1	30	1.06	0.10	0.11	3.43	6.51	6.68
NEX	138R	36.9	0.01	25	134	960	0.0102	4.0	30	1.04	0.10	0.11	4.22	8.00	8.20
NEX	140R	27.6	0.01	25	134	705	0.0125	3.9	30	0.99	0.10	0.11	3.01	5.67	5.82
NEX	142R	36.0	0.01	25	134	966	0.0104	3.7	30	0.95	0.10	0.11	3.76	7.07	7.24
NEX	144R	39.6	0.01	25	134	1,078	0.0094	3.4	30	0.88	0.10	0.11	3.83	7.14	7.32
NEX	146R	27.4	0.01	25	134	693	0.0144	3.2	30	0.81	0.10	0.11	2.44	4.51	4.62
NEX	148R	27.6	0.08	25	134	1,266	0.0097	3.2	30	0.81	0.10	0.16	3.58	5.55	5.69
NEX	150R	20.7	0.10	25	134	1,379	0.0096	3.1	30	0.79	0.10	0.18	2.94	4.34	4.45
NEX	17B	39.1	0.09	25	134	1,212	0.0083	3.0	30	0.77	0.10	0.17	5.12	7.71	7.90
NEX	159S	39.3	0.10	25	134	2,302	0.0110	2.9	30	0.74	0.10	0.18	5.23	7.68	7.87
NEX	161S	36.7	0.10	25	134	2,012	0.0121	2.8	30	0.72	0.10	0.18	4.76	6.97	7.14
NEX	163T	16.1	0.10	25	134	1,839	0.0088	3.0	30	0.77	0.10	0.18	2.23	3.28	3.37
NEX	165T	28.5	0.10	25	134	887	0.0119	3.0	30	0.77	0.10	0.18	3.95	5.81	5.96
NEX	167T	38.0	0.10	25	134	1,078	0.0088	2.8	30	0.72	0.10	0.18	4.92	7.21	7.39
NEX	169T	39.8	0.10	25	134	1,337	0.0120	2.8	30	0.72	0.10	0.18	5.16	7.56	7.74
NEX	171T	29.2	0.10	25	134	1,813	0.0098	2.8	30	0.72	0.10	0.18	3.78	5.54	5.68
NEX	177U	29.4	0.10	25	134	3,079	0.0082	2.8	30	0.72	0.10	0.18	3.81	5.58	5.72
NEX	178U	29.1	0.10	25	134	2,590	0.0098	2.8	30	0.72	0.10	0.18	3.77	5.52	5.66
NEX	180U	31.8	0.06	25	134	2,207	0.0112	2.8	30	0.72	0.10	0.15	3.43	5.42	5.55
NEX	182U	21.3	0.03	25	134	2,448	0.0081	2.8	30	0.72	0.10	0.12	1.84	3.22	3.30
Outlet 8V															
NEX	1V	23.8	0.08	25	134	1,412	0.0103	2.8	30	0.72	0.10	0.16	2.74	4.21	4.31
NEX	3V	39.4	0.03	25	134	1,046	0.0115	2.8	30	0.72	0.10	0.12	3.40	5.95	6.09
NEX	5V	39.9	0.06	25	134	892	0.0100	2.8	30	0.72	0.10	0.15	4.31	6.80	6.97
NEX	7V	40.0	0.06	25	134	964	0.0100	2.8	30	0.72	0.10	0.15	4.32	6.82	6.99
Outlet 73WZ															
NEX	1W	24.1	0.01	25	124	1,848	0.0105	4.6	30	1.17	0.10	0.11	3.10	5.95	6.10
NEX	3W	22.3	0.01	25	124	1,007	0.0107	4.4	30	1.13	0.10	0.11	2.77	5.30	5.43
NEX	5W	26.9	0.01	25	124	1,111	0.0099	4.2	30	1.08	0.10	0.11	3.20	6.09	6.24
NEX	7W	24.7	0.01	25	124	1,118	0.0071	4.0	30	1.04	0.10	0.11	2.83	5.36	5.50
NEX	9W	35.1	0.01	25	124	1,301	0.0100	3.9	30	0.99	0.10	0.11	3.82	7.21	7.39
NEX	11W	24.8	0.02	25	124	779	0.0075	3.8	30	0.97	0.10	0.12	2.89	5.20	5.33

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	13W	36.2	0.05	25	124	915	0.0114	3.7	30	0.95	0.10	0.14	4.81	8.02	8.22
NEX	15W	33.0	0.07	25	124	796	0.0139	3.5	30	0.90	0.10	0.16	4.75	7.43	7.61
NEX	17W	39.5	0.10	25	124	930	0.0120	3.3	30	0.86	0.10	0.18	6.11	9.07	9.30
NEX	19W	32.8	0.10	25	124	774	0.0094	3.2	30	0.81	0.10	0.18	4.78	7.06	7.24
NEX	21W	35.4	0.10	25	124	1,066	0.0082	3.2	30	0.81	0.10	0.18	5.16	7.62	7.82
NEX	23W	19.1	0.10	25	134	860	0.0063	3.1	30	0.79	0.10	0.18	2.72	4.01	4.11
NEX	25W	11.4	0.10	25	134	684	0.0073	3.1	30	0.79	0.10	0.18	1.62	2.39	2.45
NEX	27W	22.7	0.10	25	134	1,949	0.0103	3.0	30	0.77	0.10	0.18	3.15	4.63	4.75
NEX	4B	15.1	0.10	25	134	642	0.0098	3.0	30	0.77	0.10	0.18	2.09	3.08	3.15
NEX	38W	19.2	0.06	25	134	1,430	0.0096	2.9	30	0.74	0.10	0.15	2.13	3.37	3.45
NEX	2B	27.6	0.01	25	134	1,623	0.0080	2.8	30	0.72	0.10	0.11	2.19	3.99	4.09
NEX	29X	7.3	0.10	25	124	1,088	0.0076	3.2	30	0.81	0.10	0.18	1.06	1.57	1.61
NEX	31X	23.1	0.10	25	124	882	0.0135	3.1	30	0.79	0.10	0.18	3.28	4.84	4.96
NEX	33X	13.0	0.10	25	124	429	0.0129	3.0	29	0.78	0.10	0.18	1.83	2.69	2.76
NEX	35X	18.5	0.10	25	134	1,115	0.0128	3.0	30	0.77	0.10	0.18	2.56	3.77	3.86
NEX	40Y	6.4	0.10	25	124	970	0.0089	3.2	30	0.81	0.10	0.18	0.93	1.38	1.41
NEX	42Y	11.2	0.10	25	124	831	0.0114	3.2	30	0.81	0.10	0.18	1.63	2.41	2.47
NEX	44Y	15.6	0.10	25	124	883	0.0107	3.1	30	0.79	0.10	0.18	2.22	3.27	3.35
NEX	46Y	9.5	0.10	25	124	390	0.0168	3.0	26	0.82	0.10	0.18	1.40	2.07	2.12
NEX	48Y	13.1	0.10	25	134	658	0.0167	2.9	30	0.74	0.10	0.18	1.74	2.56	2.62
NEX	50Y	24.4	0.05	25	134	1,416	0.0105	2.9	30	0.74	0.10	0.14	2.53	4.12	4.23
NEX	53Z	12.8	0.10	25	124	1,273	0.0132	3.5	30	0.90	0.10	0.18	2.07	3.08	3.16
NEX	55Z	24.9	0.10	25	124	1,086	0.0117	3.4	30	0.88	0.10	0.18	3.94	5.86	6.01
NEX	57Z	25.8	0.10	25	124	863	0.0135	3.2	30	0.83	0.10	0.18	3.85	5.70	5.84
NEX	59Z	30.1	0.10	25	124	922	0.0123	3.2	30	0.81	0.10	0.18	4.39	6.49	6.65
NEX	61Z	28.0	0.10	25	124	907	0.0102	3.1	30	0.79	0.10	0.18	3.98	5.87	6.02
NEX	63Z	32.7	0.10	25	124	1,048	0.0113	3.1	30	0.79	0.10	0.18	4.65	6.86	7.03
NEX	65Z	25.7	0.05	25	134	1,003	0.0124	3.0	30	0.77	0.10	0.14	2.77	4.53	4.65
NEX	67Z	9.1	0.01	25	134	399	0.0147	3.0	30	0.77	0.10	0.11	0.77	1.42	1.45
NEX	69Z	24.4	0.01	25	134	1,072	0.0128	2.9	30	0.74	0.10	0.11	1.99	3.64	3.73
NEX	71Z	27.0	0.01	25	134	1,351	0.0092	2.8	30	0.72	0.10	0.11	2.14	3.90	4.00
Outlet 110A															
NEX	101A	8.2	0.10	25	124	1,080	0.0117	3.5	30	0.90	0.10	0.18	1.33	1.98	2.03
NEX	103A	17.4	0.10	25	124	846	0.0126	3.3	30	0.86	0.10	0.18	2.69	3.99	4.09
NEX	105A	18.4	0.10	25	124	782	0.0142	3.2	30	0.83	0.10	0.18	2.75	4.07	4.17

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	107A	24.3	0.10	25	120	822	0.0118	3.2	30	0.81	0.20	0.27	5.31	6.82	6.99
NEX	109A	21.0	0.10	25	120	717	0.0102	3.2	30	0.81	0.20	0.27	4.59	5.89	6.04
Outlet 165B															
NEX	13B	30.0	0.01	25	124	1,041	0.0084	4.9	30	1.26	0.10	0.11	4.16	8.03	8.24
NEX	14B	22.1	0.01	25	134	2,097	0.0097	5.0	30	1.29	0.13	0.14	3.99	6.83	7.00
NEX	20B	38.7	0.01	25	124	1,100	0.0114	5.1	30	1.31	0.10	0.11	5.58	10.82	11.09
NEX	21B	11.2	0.01	25	134	976	0.0116	5.1	30	1.31	0.13	0.14	2.05	3.52	3.60
NEX	28B	24.5	0.01	25	134	1,210	0.0123	5.4	30	1.40	0.16	0.17	5.83	9.18	9.41
NEX	29B	7.6	0.01	25	124	918	0.0157	5.4	30	1.40	0.10	0.11	1.17	2.28	2.34
NEX	35B	15.5	0.01	25	124	1,532	0.0248	5.7	30	1.47	0.11	0.12	2.73	5.11	5.24
NEX	36B	29.0	0.01	25	124	1,706	0.0265	5.8	30	1.49	0.12	0.13	5.62	10.09	10.35
NEX	100B	67.1	0.01	25	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	25	124	1,058	0.0457	6.0	30	1.53	0.12	0.13	5.17	9.31	9.54
NEX	104B	24.8	0.01	25	124	1,470	0.0295	5.8	30	1.49	0.12	0.13	4.80	8.63	8.84
NEX	106B	18.1	0.01	25	124	959	0.0182	5.6	30	1.44	0.11	0.12	3.13	5.84	5.99
NEX	118B	34.1	0.01	25	124	944	0.0135	5.3	30	1.35	0.10	0.11	5.06	9.84	10.09
NEX	142B	27.0	0.01	25	124	872	0.0100	4.8	30	1.24	0.10	0.11	3.68	7.10	7.28
NEX	144B	24.7	0.01	25	124	1,127	0.0100	4.7	30	1.20	0.10	0.11	3.26	6.27	6.43
NEX	146B	26.0	0.01	25	124	1,083	0.0087	4.5	30	1.15	0.10	0.11	3.29	6.30	6.46
NEX	148B	22.6	0.01	25	124	872	0.0064	4.3	30	1.11	0.10	0.11	2.76	5.27	5.40
NEX	150B	28.5	0.01	25	124	1,358	0.0100	4.0	30	1.04	0.10	0.11	3.26	6.18	6.34
NEX	152B	23.4	0.01	25	124	1,217	0.0094	3.9	30	0.99	0.10	0.11	2.55	4.81	4.93
NEX	154B	20.9	0.02	25	124	807	0.0117	3.7	30	0.95	0.10	0.12	2.38	4.28	4.38
NEX	156B	26.1	0.05	25	124	966	0.0109	3.6	30	0.93	0.10	0.14	3.40	5.66	5.80
NEX	158B	26.4	0.05	25	124	973	0.0103	3.5	30	0.90	0.10	0.14	3.33	5.52	5.66
NEX	160B	29.7	0.05	25	124	1,044	0.0088	3.4	30	0.88	0.10	0.14	3.66	6.06	6.21
NEX	162B	27.9	0.07	25	124	1,101	0.0100	3.3	30	0.86	0.10	0.16	3.84	5.98	6.13
NEX	164B	25.2	0.10	25	124	1,034	0.0097	3.3	30	0.86	0.10	0.18	3.90	5.79	5.93
NEX	108C	959.0	0.01	25	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	25	124	1,568	0.0397	5.9	30	1.51	0.12	0.13	7.79	14.01	14.36
NEX	115C	12.0	0.01	25	124	949	0.0196	5.6	30	1.44	0.11	0.12	2.07	3.87	3.96
NEX	112D	37.7	0.01	25	124	2,150	0.0278	5.9	30	1.51	0.12	0.13	7.40	13.31	13.64
NEX	120E	31.1	0.01	25	124	2,049	0.0310	5.8	30	1.49	0.12	0.13	6.02	10.82	11.09
NEX	122E	18.9	0.01	25	124	866	0.0304	5.7	30	1.47	0.11	0.12	3.33	6.23	6.39
NEX	124E	37.4	0.01	25	134	1,753	0.0175	5.5	30	1.42	0.17	0.18	9.56	14.69	15.06

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
25-YEAR STORM															
NEX	126E	21.3	0.01	25	134	919	0.0177	5.4	30	1.38	0.15	0.16	4.70	7.60	7.79
NEX	128E	16.6	0.01	25	134	904	0.0144	5.3	30	1.35	0.14	0.15	3.36	5.58	5.72
NEX	131F	13.6	0.01	25	134	906	0.0318	5.7	18	1.86	0.28	0.29	7.34	9.57	9.80
NEX	133F	26.1	0.01	25	134	1,224	0.0214	5.6	30	1.44	0.17	0.18	6.77	10.41	10.67
NEX	135F	37.2	0.01	25	134	1,787	0.0163	5.4	30	1.40	0.16	0.17	8.85	13.93	14.28
NEX	137F	24.5	0.01	25	134	979	0.0194	5.3	30	1.35	0.14	0.15	4.96	8.24	8.45
NEX	139F	14.3	0.01	25	134	790	0.0144	5.2	30	1.33	0.14	0.15	2.85	4.73	4.85

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
Outlet 16A															
NEX	1A	40.0	0.01	50	124	2,398	0.0092	4.2	30	1.08	0.10	0.11	4.75	9.04	9.27
NEX	3A	39.8	0.01	50	124	1,498	0.0097	3.8	30	0.98	0.10	0.11	4.29	8.09	8.29
NEX	5A	38.3	0.01	50	124	1,253	0.0091	3.6	30	0.93	0.10	0.11	3.92	7.35	7.53
NEX	7A	32.4	0.01	50	124	1,114	0.0101	3.5	30	0.90	0.10	0.11	3.21	6.00	6.15
NEX	9A	27.7	0.07	50	124	1,242	0.0087	3.4	30	0.87	0.10	0.16	3.86	6.02	6.17
NEX	11A	33.9	0.10	50	124	1,469	0.0099	3.4	30	0.87	0.10	0.18	5.31	7.89	8.08
NEX	13A	38.9	0.10	50	134	1,177	0.0087	3.3	30	0.85	0.10	0.18	5.95	8.82	9.04
NEX	15A	38.3	0.10	50	134	994	0.0104	3.2	30	0.82	0.10	0.18	5.65	8.36	8.57
Outlet 6B															
NEX	1B	22.1	0.10	50	124	2,664	0.0093	3.4	30	0.87	0.10	0.18	3.46	5.14	5.27
NEX	3B	39.9	0.10	50	124	1,443	0.0124	3.2	30	0.82	0.10	0.18	5.89	8.71	8.93
NEX	5B	39.0	0.04	50	124	732	0.0103	3.2	30	0.82	0.10	0.13	4.16	7.08	7.26
Outlet 110CG															
NEX	1C	17.8	0.01	50	124	1,591	0.0201	6.2	30	1.59	0.14	0.15	4.25	7.15	7.33
NEX	3C	15.5	0.01	50	124	1,045	0.0180	6.0	30	1.54	0.13	0.14	3.34	5.80	5.94
NEX	5C	29.5	0.01	50	124	1,347	0.0173	5.8	30	1.49	0.12	0.13	5.71	10.26	10.52
NEX	7C	25.1	0.01	50	124	1,037	0.0175	5.7	30	1.47	0.11	0.12	4.43	8.28	8.49
NEX	9C	20.7	0.01	50	124	733	0.0164	5.6	30	1.44	0.11	0.12	3.58	6.68	6.85
NEX	11C	25.8	0.01	50	124	713	0.0162	5.5	30	1.41	0.10	0.11	4.00	7.81	8.01
NEX	13C	31.9	0.01	50	124	939	0.0156	5.5	30	1.41	0.10	0.11	4.95	9.66	9.90
NEX	15C	34.6	0.01	50	124	903	0.0126	5.4	30	1.39	0.10	0.11	5.29	10.32	10.57
NEX	17C	32.8	0.01	50	124	1,112	0.0142	5.2	30	1.34	0.10	0.11	4.83	9.39	9.63
NEX	19C	23.2	0.01	50	124	1,160	0.0121	5.0	30	1.29	0.10	0.11	3.29	6.37	6.53
NEX	21C	29.7	0.01	50	124	1,549	0.0113	4.7	30	1.21	0.10	0.11	3.95	7.60	7.79
NEX	23C	35.4	0.01	50	124	1,993	0.0106	4.2	30	1.08	0.10	0.11	4.21	8.01	8.21
NEX	25C	28.1	0.01	50	124	1,765	0.0089	3.9	30	1.00	0.10	0.11	3.09	5.84	5.98
NEX	27C	35.0	0.01	50	124	1,922	0.0082	3.6	30	0.93	0.10	0.11	3.58	6.71	6.88
NEX	29C	34.0	0.01	50	124	1,457	0.0104	3.5	30	0.90	0.10	0.11	3.37	6.29	6.45
NEX	31C	29.3	0.01	50	124	1,251	0.0108	3.4	30	0.87	0.10	0.11	2.80	5.22	5.35
NEX	33C	35.6	0.10	50	124	2,107	0.0110	3.3	30	0.85	0.10	0.18	5.45	8.08	8.28
NEX	109C	21.4	0.10	50	124	2,279	0.0094	3.2	30	0.82	0.10	0.18	3.16	4.67	4.79
NEX	35D	16.7	0.01	50	134	1,299	0.0130	5.2	30	1.34	0.14	0.15	3.36	5.58	5.72
NEX	37D	29.0	0.01	50	124	1,308	0.0138	5.0	30	1.29	0.10	0.11	4.12	7.97	8.17
NEX	39D	29.9	0.01	50	124	1,530	0.0105	4.8	30	1.23	0.10	0.11	4.05	7.80	8.00

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	41D	21.4	0.01	50	124	1,185	0.0107	4.5	30	1.16	0.10	0.11	2.73	5.23	5.36
NEX	43D	26.1	0.01	50	124	1,524	0.0106	4.2	30	1.08	0.10	0.11	3.10	5.90	6.05
NEX	45D	30.2	0.01	50	134	1,697	0.0084	4.0	30	1.03	0.10	0.11	3.42	6.48	6.64
NEX	47D	30.2	0.01	50	134	1,239	0.0099	3.6	30	0.93	0.10	0.11	3.09	5.79	5.94
NEX	49D	39.0	0.01	50	134	1,500	0.0087	3.5	30	0.90	0.10	0.11	3.86	7.21	7.39
NEX	51D	31.8	0.05	50	134	1,258	0.0114	3.4	30	0.87	0.10	0.14	3.87	6.40	6.57
NEX	53D	23.0	0.10	50	134	1,118	0.0076	3.4	30	0.87	0.10	0.18	3.60	5.35	5.48
NEX	55D	14.6	0.10	50	124	1,256	0.0099	3.3	30	0.85	0.10	0.18	2.23	3.31	3.39
NEX	58E	12.6	0.10	50	124	1,440	0.0115	3.3	30	0.85	0.10	0.18	1.93	2.86	2.93
NEX	60E	28.7	0.10	50	124	3,334	0.0115	3.2	30	0.82	0.10	0.18	4.24	6.27	6.42
NEX	62F	16.5	0.01	50	124	1,673	0.0210	6.1	30	1.57	0.13	0.14	3.63	6.31	6.46
NEX	64F	24.0	0.01	50	124	955	0.0200	6.0	30	1.54	0.13	0.14	5.17	8.98	9.20
NEX	66F	33.9	0.01	50	124	1,251	0.0183	5.8	30	1.49	0.12	0.13	6.57	11.80	12.09
NEX	68F	29.6	0.01	50	124	1,122	0.0174	5.7	30	1.47	0.11	0.12	5.22	9.76	10.01
NEX	70F	25.9	0.01	50	124	874	0.0146	5.6	30	1.44	0.11	0.12	4.48	8.36	8.57
NEX	72F	26.7	0.01	50	124	907	0.0150	5.5	30	1.41	0.10	0.11	4.14	8.09	8.29
NEX	74F	29.9	0.01	50	124	876	0.0140	5.4	30	1.39	0.10	0.11	4.57	8.91	9.14
NEX	76F	39.5	0.01	50	124	987	0.0160	5.2	30	1.34	0.10	0.11	5.82	11.31	11.60
NEX	78F	38.8	0.01	50	124	900	0.0130	5.0	30	1.29	0.10	0.11	5.51	10.66	10.93
NEX	80F	39.6	0.01	50	124	831	0.0143	4.8	30	1.23	0.10	0.11	5.36	10.33	10.59
NEX	82F	39.9	0.01	50	124	829	0.0121	4.6	30	1.18	0.10	0.11	5.18	9.94	10.19
NEX	84F	39.8	0.01	50	124	853	0.0117	4.4	30	1.13	0.10	0.11	4.95	9.46	9.70
NEX	86F	39.1	0.01	50	124	1,094	0.0099	4.4	30	1.13	0.10	0.11	4.86	9.29	9.52
NEX	88F	22.9	0.01	50	124	845	0.0078	4.2	30	1.08	0.10	0.11	2.72	5.18	5.31
NEX	90F	36.2	0.01	50	124	1,675	0.0088	3.9	30	1.00	0.10	0.11	3.98	7.52	7.71
NEX	92F	23.7	0.01	50	124	1,298	0.0095	3.6	30	0.93	0.10	0.11	2.42	4.54	4.65
NEX	94F	17.9	0.01	50	124	1,020	0.0084	3.5	30	0.90	0.10	0.11	1.77	3.31	3.39
NEX	96F	22.5	0.01	50	124	1,387	0.0064	3.4	30	0.87	0.10	0.11	2.15	4.01	4.11
NEX	98F	21.4	0.01	50	124	1,222	0.0099	3.4	30	0.87	0.10	0.11	2.05	3.81	3.91
NEX	100F	16.7	0.10	50	124	1,247	0.0115	3.3	30	0.85	0.10	0.18	2.56	3.79	3.89
NEX	102F	23.0	0.10	50	124	3,287	0.0111	3.2	30	0.82	0.10	0.18	3.39	5.02	5.14
NEX	104G	18.2	0.10	50	134	1,898	0.0104	3.3	30	0.85	0.10	0.18	2.78	4.12	4.23
NEX	106G	39.9	0.07	50	134	2,469	0.0090	3.2	30	0.82	0.10	0.16	5.23	8.12	8.32
Outlet 4H															
NEX	1H	19.0	0.10	50	134	1,718	0.0090	3.3	30	0.85	0.10	0.18	2.91	4.31	4.42

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	3H	39.5	0.03	50	134	1,850	0.0112	3.2	30	0.82	0.10	0.12	3.89	6.89	7.06
Outlet 63IJ															
NEX	1I	10.8	0.01	50	124	1,416	0.0169	5.8	30	1.49	0.12	0.13	2.09	3.76	3.85
NEX	3I	18.1	0.01	50	124	929	0.0163	5.7	30	1.47	0.11	0.12	3.19	5.97	6.12
NEX	5I	12.8	0.01	50	124	459	0.0169	5.7	16	1.97	0.21	0.22	5.55	8.01	8.21
NEX	7I	16.5	0.01	50	134	616	0.0136	5.6	16	1.93	0.30	0.31	9.87	12.61	12.93
NEX	9I	25.9	0.01	50	134	879	0.0149	5.6	24	1.60	0.22	0.23	9.53	13.38	13.71
NEX	11I	26.8	0.01	50	134	968	0.0127	5.5	30	1.41	0.16	0.17	6.42	10.11	10.37
NEX	13I	31.1	0.01	50	134	1,180	0.0126	5.3	30	1.36	0.15	0.16	6.77	10.92	11.20
NEX	15I	37.7	0.01	50	134	1,443	0.0129	5.2	30	1.34	0.14	0.15	7.58	12.59	12.90
NEX	17I	27.6	0.01	50	134	900	0.0119	4.9	30	1.26	0.12	0.13	4.52	8.00	8.21
NEX	19I	25.5	0.01	50	134	838	0.0125	4.8	30	1.23	0.11	0.12	3.76	6.92	7.10
NEX	21I	37.2	0.01	50	134	1,165	0.0103	4.6	30	1.18	0.10	0.11	4.83	9.27	9.50
NEX	23I	34.3	0.01	50	134	1,034	0.0107	4.4	30	1.13	0.10	0.11	4.26	8.15	8.35
NEX	25I	38.0	0.01	50	134	1,049	0.0101	4.2	30	1.08	0.10	0.11	4.51	8.59	8.80
NEX	27I	39.5	0.01	50	134	2,077	0.0093	3.8	30	0.98	0.10	0.11	4.26	8.03	8.23
NEX	29I	29.4	0.05	50	134	1,661	0.0096	3.5	30	0.90	0.10	0.14	3.70	6.14	6.30
NEX	31I	39.6	0.10	50	134	1,306	0.0098	3.4	30	0.87	0.10	0.18	6.20	9.21	9.44
NEX	33I	39.3	0.18	50	134	1,279	0.0066	3.4	30	0.87	0.10	0.24	8.21	10.98	11.25
NEX	35I	26.7	0.10	50	134	878	0.0114	3.3	30	0.85	0.10	0.18	4.09	6.06	6.21
NEX	37I	37.9	0.06	50	134	1,809	0.0076	3.2	30	0.82	0.10	0.15	4.66	7.44	7.62
NEX	39J	27.8	0.01	50	134	1,645	0.0119	5.2	30	1.34	0.14	0.15	5.59	9.28	9.51
NEX	41J	18.8	0.01	50	134	760	0.0129	5.0	30	1.29	0.13	0.14	3.40	5.81	5.96
NEX	43J	32.3	0.01	50	134	1,022	0.0128	4.9	30	1.26	0.12	0.13	5.29	9.37	9.60
NEX	45J	32.3	0.01	50	134	1,126	0.0115	4.7	30	1.21	0.10	0.11	4.30	8.27	8.48
NEX	47J	27.3	0.01	50	134	1,116	0.0106	4.4	30	1.13	0.10	0.11	3.39	6.48	6.65
NEX	49J	22.5	0.01	50	134	1,019	0.0104	4.2	30	1.08	0.10	0.11	2.67	5.08	5.21
NEX	51J	18.6	0.01	50	134	1,085	0.0098	3.8	30	0.98	0.10	0.11	2.01	3.78	3.88
NEX	53J	35.3	0.05	50	134	1,400	0.0103	3.8	30	0.98	0.10	0.14	4.84	8.09	8.30
NEX	55J	40.0	0.10	50	134	1,510	0.0079	3.6	30	0.93	0.10	0.18	6.70	10.00	10.25
NEX	57J	40.0	0.10	50	134	1,410	0.0090	3.4	30	0.87	0.10	0.18	6.26	9.30	9.53
NEX	59J	37.3	0.29	50	134	1,434	0.0091	3.3	30	0.85	0.10	0.33	10.46	12.71	13.03
NEX	61J	28.5	0.10	50	134	2,082	0.0073	3.2	30	0.82	0.10	0.18	4.21	6.22	6.38
Outlet 184KU															
NEX	1K	464.4	0.01	50	120	1,160	0.0500	8.0	9	3.62	0.69	0.69	1,160.00	1,231.99	1,262.79

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	3K	21.5	0.01	50	124	571	0.0305	6.4	12	2.53	0.30	0.31	16.86	21.76	22.31
NEX	5K	39.6	0.01	50	124	1,014	0.0204	6.3	30	1.62	0.14	0.15	9.62	16.21	16.62
NEX	7K	39.6	0.01	50	124	1,054	0.0183	6.2	30	1.59	0.14	0.15	9.44	15.89	16.28
NEX	9K	30.7	0.01	50	134	957	0.0161	6.0	21	1.82	0.28	0.29	16.20	21.10	21.63
NEX	11K	33.2	0.01	50	134	1,511	0.0147	5.9	30	1.52	0.20	0.21	10.60	15.36	15.75
NEX	83B	26.8	0.01	50	134	709	0.0130	5.6	19	1.78	0.27	0.28	13.36	17.58	18.02
NEX	24K	30.9	0.01	50	134	778	0.0132	5.6	21	1.70	0.25	0.26	13.66	18.40	18.86
NEX	26K	32.3	0.01	50	134	881	0.0107	5.6	29	1.46	0.18	0.19	8.96	13.49	13.83
NEX	28K	28.9	0.01	50	134	934	0.0105	5.5	30	1.41	0.16	0.17	6.93	10.91	11.18
NEX	30K	21.2	0.01	50	134	853	0.0132	5.4	30	1.39	0.16	0.17	5.01	7.88	8.08
NEX	64K	31.4	0.01	50	134	784	0.0105	5.5	27	1.49	0.19	0.20	9.36	13.81	14.16
NEX	66K	37.2	0.01	50	124	770	0.0108	5.4	30	1.39	0.10	0.11	5.69	11.09	11.37
NEX	68K	34.7	0.01	50	124	992	0.0100	5.2	30	1.34	0.10	0.11	5.11	9.94	10.18
NEX	70K	19.1	0.01	50	124	975	0.0088	5.0	30	1.29	0.10	0.11	2.71	5.25	5.38
NEX	72K	10.9	0.01	50	124	715	0.0070	4.9	30	1.26	0.10	0.11	1.51	2.92	2.99
NEX	74K	24.2	0.01	50	124	1,168	0.0128	4.8	30	1.23	0.10	0.11	3.27	6.31	6.46
NEX	106K	32.1	0.01	50	124	913	0.0110	4.7	30	1.21	0.10	0.11	4.27	8.22	8.43
NEX	108K	37.7	0.01	50	124	1,081	0.0100	4.6	30	1.18	0.10	0.11	4.89	9.39	9.63
NEX	110K	39.4	0.01	50	124	1,044	0.0124	4.4	30	1.13	0.10	0.11	4.90	9.36	9.60
NEX	112K	39.8	0.01	50	124	1,121	0.0111	4.2	30	1.08	0.10	0.11	4.73	9.00	9.22
NEX	114K	40.0	0.01	50	124	960	0.0095	4.0	30	1.03	0.10	0.11	4.53	8.58	8.80
NEX	116K	39.8	0.02	50	124	919	0.0099	3.8	30	0.98	0.10	0.12	4.68	8.43	8.64
NEX	118K	39.8	0.07	50	134	835	0.0198	3.6	30	0.93	0.10	0.16	5.92	9.28	9.51
NEX	120K	22.4	0.09	50	134	1,042	0.0077	3.5	30	0.90	0.10	0.17	3.43	5.23	5.36
NEX	15B	39.1	0.09	50	134	1,212	0.0083	3.5	30	0.90	0.10	0.17	5.98	9.12	9.34
NEX	153K	38.8	0.08	50	134	2,066	0.0097	3.4	30	0.87	0.10	0.16	5.40	8.42	8.63
NEX	155K	27.3	0.09	50	134	1,710	0.0088	3.3	30	0.85	0.10	0.17	3.94	5.98	6.13
NEX	157K	22.1	0.10	50	134	1,697	0.0087	3.2	30	0.82	0.10	0.18	3.26	4.82	4.94
NEX	6B	39.7	0.10	50	134	1,115	0.0092	3.2	30	0.82	0.10	0.18	5.86	8.67	8.88
NEX	175K	28.5	0.10	50	134	1,834	0.0081	3.2	30	0.82	0.10	0.18	4.21	6.22	6.38
NEX	13L	28.8	0.01	50	134	659	0.0212	6.6	12	2.61	0.41	0.41	30.82	36.64	37.56
NEX	15L	24.8	0.01	50	134	724	0.0209	6.5	12	2.57	0.40	0.41	26.13	31.05	31.83
NEX	17L	25.3	0.01	50	134	1,152	0.0170	6.4	21	1.95	0.30	0.31	15.29	19.54	20.03
NEX	19L	21.3	0.01	50	134	1,374	0.0164	6.2	29	1.62	0.23	0.24	8.28	11.45	11.74
NEX	21L	17.9	0.01	50	134	1,523	0.0156	6.0	30	1.54	0.20	0.21	5.79	8.40	8.61

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	32M	935.0	0.90	50	120	1,000	0.2000	8.0	5	4.77	0.75	0.89	3,969.36	4,039.87	4,140.87
NEX	34M	31.7	0.01	50	134	1,319	0.0217	6.6	21	2.01	0.31	0.32	20.39	25.83	26.48
NEX	36M	29.5	0.01	50	134	1,114	0.0194	6.4	20	1.99	0.31	0.32	18.79	23.80	24.39
NEX	38M	27.9	0.01	50	134	1,014	0.0181	6.2	20	1.93	0.30	0.31	16.69	21.33	21.86
NEX	40M	39.2	0.01	50	134	1,409	0.0155	6.1	30	1.57	0.21	0.22	13.54	19.31	19.79
NEX	68B	23.0	0.01	50	134	885	0.0208	6.0	18	1.96	0.30	0.31	13.97	17.86	18.31
NEX	53M	18.1	0.01	50	134	1,259	0.0092	5.8	30	1.49	0.19	0.20	5.39	7.96	8.16
NEX	64B	24.1	0.01	50	134	934	0.0115	5.7	29	1.49	0.19	0.20	7.18	10.60	10.86
NEX	60M	21.5	0.01	50	134	1,075	0.0132	5.6	30	1.44	0.17	0.18	5.57	8.57	8.79
NEX	42N	959.0	0.01	50	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	44N	39.5	0.01	50	134	684	0.0517	6.6	10	2.84	0.44	0.44	49.36	57.72	59.16
NEX	46N	38.9	0.01	50	134	702	0.0282	6.5	12	2.57	0.40	0.41	40.99	48.71	49.93
NEX	48N	37.9	0.01	50	134	938	0.0231	6.4	15	2.28	0.36	0.37	31.97	38.96	39.93
NEX	50N	32.3	0.01	50	134	1,933	0.0092	6.2	30	1.59	0.22	0.23	11.81	16.57	16.99
NEX	55O	35.7	0.01	50	134	2,369	0.0122	6.2	30	1.59	0.22	0.23	13.06	18.32	18.78
NEX	57O	19.0	0.01	50	134	1,288	0.0125	6.1	30	1.57	0.21	0.22	6.56	9.36	9.59
NEX	76P	199.8	0.01	50	120	640	0.0500	8.0	6	4.38	0.73	0.73	638.97	672.53	689.35
NEX	78P	26.5	0.01	50	124	1,220	0.0087	6.6	30	1.70	0.16	0.17	7.66	12.22	12.53
NEX	80P	39.7	0.01	50	134	2,419	0.0185	6.4	30	1.64	0.23	0.24	15.63	21.62	22.16
NEX	57B	40.0	0.01	50	134	949	0.0200	6.2	18	2.03	0.31	0.32	25.98	32.93	33.75
NEX	87P	40.0	0.01	50	134	856	0.0115	6.4	17	2.15	0.33	0.34	29.24	36.45	37.37
NEX	89P	40.0	0.01	50	134	1,066	0.0130	5.9	27	1.59	0.22	0.23	14.63	20.53	21.04
NEX	91P	40.0	0.01	50	134	1,323	0.0100	5.8	30	1.49	0.19	0.20	11.92	17.59	18.03
NEX	93P	38.5	0.01	50	134	1,231	0.0098	5.6	30	1.44	0.17	0.18	9.98	15.35	15.74
NEX	95P	32.9	0.01	50	124	853	0.0100	5.5	30	1.41	0.10	0.11	5.10	9.96	10.21
NEX	97P	32.3	0.01	50	124	903	0.0083	5.3	30	1.36	0.10	0.11	4.83	9.40	9.64
NEX	99P	36.0	0.01	50	124	1,173	0.0077	5.1	30	1.31	0.10	0.11	5.19	10.06	10.31
NEX	101P	22.9	0.01	50	124	832	0.0121	5.0	30	1.29	0.10	0.11	3.25	6.29	6.45
NEX	103P	12.6	0.01	50	124	949	0.0105	4.8	30	1.23	0.10	0.11	1.70	3.28	3.36
NEX	82Q	40.0	0.01	50	134	1,582	0.0272	6.6	24	1.88	0.29	0.30	22.56	29.10	29.82
NEX	84Q	40.0	0.01	50	134	1,847	0.0211	6.4	30	1.64	0.23	0.24	15.74	21.78	22.32
NEX	122R	21.6	0.01	50	134	1,940	0.0123	5.4	30	1.39	0.16	0.17	5.10	8.03	8.23
NEX	124R	32.5	0.01	50	134	1,189	0.0132	5.3	30	1.36	0.15	0.16	7.07	11.41	11.70
NEX	126R	23.9	0.01	50	134	803	0.0128	5.2	30	1.34	0.14	0.15	4.80	7.97	8.17
NEX	128R	28.8	0.01	50	134	966	0.0104	5.3	30	1.36	0.15	0.16	6.27	10.12	10.37

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	130R	29.3	0.01	50	134	795	0.0096	5.0	30	1.29	0.13	0.14	5.29	9.05	9.28
NEX	132R	27.5	0.01	50	134	759	0.0105	4.9	30	1.26	0.12	0.13	4.50	7.97	8.17
NEX	134R	27.3	0.01	50	134	740	0.0098	4.8	30	1.23	0.11	0.12	4.03	7.42	7.60
NEX	136R	29.4	0.01	50	134	849	0.0100	4.7	30	1.21	0.10	0.11	3.91	7.53	7.72
NEX	138R	36.9	0.01	50	134	960	0.0102	4.6	30	1.18	0.10	0.11	4.79	9.20	9.42
NEX	140R	27.6	0.01	50	134	705	0.0125	4.4	30	1.13	0.10	0.11	3.43	6.56	6.72
NEX	142R	36.0	0.01	50	134	966	0.0104	4.2	30	1.08	0.10	0.11	4.28	8.14	8.35
NEX	144R	39.6	0.01	50	134	1,078	0.0094	3.9	30	1.00	0.10	0.11	4.36	8.23	8.44
NEX	146R	27.4	0.01	50	134	693	0.0144	3.6	30	0.93	0.10	0.11	2.80	5.25	5.38
NEX	148R	27.6	0.08	50	134	1,266	0.0097	3.6	30	0.93	0.10	0.16	4.11	6.44	6.60
NEX	150R	20.7	0.10	50	134	1,379	0.0096	3.5	30	0.90	0.10	0.18	3.35	4.99	5.11
NEX	17B	39.1	0.09	50	134	1,212	0.0083	3.4	30	0.87	0.10	0.17	5.78	8.79	9.01
NEX	159S	39.3	0.10	50	134	2,302	0.0110	3.3	30	0.85	0.10	0.18	6.01	8.91	9.14
NEX	161S	36.7	0.10	50	134	2,012	0.0121	3.2	30	0.82	0.10	0.18	5.42	8.01	8.21
NEX	163T	16.1	0.10	50	134	1,839	0.0088	3.4	30	0.87	0.10	0.18	2.52	3.74	3.84
NEX	165T	28.5	0.10	50	134	887	0.0119	3.4	30	0.87	0.10	0.18	4.46	6.63	6.79
NEX	167T	38.0	0.10	50	134	1,078	0.0088	3.2	30	0.82	0.10	0.18	5.61	8.30	8.50
NEX	169T	39.8	0.10	50	134	1,337	0.0120	3.2	30	0.82	0.10	0.18	5.87	8.68	8.90
NEX	171T	29.2	0.10	50	134	1,813	0.0098	3.2	30	0.82	0.10	0.18	4.31	6.37	6.53
NEX	177U	29.4	0.10	50	134	3,079	0.0082	3.2	30	0.82	0.10	0.18	4.34	6.42	6.58
NEX	178U	29.1	0.10	50	134	2,590	0.0098	3.2	30	0.82	0.10	0.18	4.30	6.36	6.52
NEX	180U	31.8	0.06	50	134	2,207	0.0112	3.2	30	0.82	0.10	0.15	3.91	6.24	6.40
NEX	182U	21.3	0.03	50	134	2,448	0.0081	3.2	30	0.82	0.10	0.12	2.10	3.72	3.81
Outlet 8V															
NEX	1V	23.8	0.08	50	134	1,412	0.0103	3.2	30	0.82	0.10	0.16	3.12	4.84	4.96
NEX	3V	39.4	0.03	50	134	1,046	0.0115	3.2	30	0.82	0.10	0.12	3.88	6.87	7.04
NEX	5V	39.9	0.06	50	134	892	0.0100	3.2	30	0.82	0.10	0.15	4.91	7.83	8.03
NEX	7V	40.0	0.06	50	134	964	0.0100	3.2	30	0.82	0.10	0.15	4.92	7.85	8.05
Outlet 73WZ															
NEX	1W	24.1	0.01	50	124	1,848	0.0105	5.2	30	1.34	0.10	0.11	3.55	6.90	7.07
NEX	3W	22.3	0.01	50	124	1,007	0.0107	5.0	30	1.29	0.10	0.11	3.16	6.12	6.28
NEX	5W	26.9	0.01	50	124	1,111	0.0099	4.8	30	1.23	0.10	0.11	3.64	7.02	7.19
NEX	7W	24.7	0.01	50	124	1,118	0.0071	4.6	30	1.18	0.10	0.11	3.21	6.16	6.31
NEX	9W	35.1	0.01	50	124	1,301	0.0100	4.4	30	1.13	0.10	0.11	4.36	8.34	8.55
NEX	11W	24.8	0.02	50	124	779	0.0075	4.3	30	1.11	0.10	0.12	3.30	6.02	6.17

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	13W	36.2	0.05	50	124	915	0.0114	4.2	30	1.08	0.10	0.14	5.47	9.22	9.45
NEX	15W	33.0	0.07	50	124	796	0.0139	4.0	30	1.03	0.10	0.16	5.44	8.60	8.81
NEX	17W	39.5	0.10	50	124	930	0.0120	3.8	30	0.98	0.10	0.18	6.97	10.44	10.70
NEX	19W	32.8	0.10	50	124	774	0.0094	3.6	30	0.93	0.10	0.18	5.49	8.19	8.40
NEX	21W	35.4	0.10	50	124	1,066	0.0082	3.6	30	0.93	0.10	0.18	5.93	8.85	9.07
NEX	23W	19.1	0.10	50	134	860	0.0063	3.5	30	0.90	0.10	0.18	3.09	4.60	4.72
NEX	25W	11.4	0.10	50	134	684	0.0073	3.5	30	0.90	0.10	0.18	1.85	2.75	2.82
NEX	27W	22.7	0.10	50	134	1,949	0.0103	3.4	30	0.87	0.10	0.18	3.55	5.28	5.41
NEX	4B	15.1	0.10	50	134	642	0.0098	3.4	30	0.87	0.10	0.18	2.36	3.51	3.60
NEX	38W	19.2	0.06	50	134	1,430	0.0096	3.3	30	0.85	0.10	0.15	2.45	3.92	4.02
NEX	2B	27.6	0.01	50	134	1,623	0.0080	3.2	30	0.82	0.10	0.11	2.49	4.61	4.72
NEX	29X	7.3	0.10	50	124	1,088	0.0076	3.6	30	0.93	0.10	0.18	1.22	1.82	1.87
NEX	31X	23.1	0.10	50	124	882	0.0135	3.5	30	0.90	0.10	0.18	3.74	5.57	5.71
NEX	33X	13.0	0.10	50	124	429	0.0129	3.4	26	0.93	0.10	0.18	2.18	3.25	3.33
NEX	35X	18.5	0.10	50	134	1,115	0.0128	3.4	30	0.87	0.10	0.18	2.90	4.31	4.41
NEX	40Y	6.4	0.10	50	124	970	0.0089	3.6	30	0.93	0.10	0.18	1.07	1.60	1.64
NEX	42Y	11.2	0.10	50	124	831	0.0114	3.6	30	0.93	0.10	0.18	1.87	2.79	2.86
NEX	44Y	15.6	0.10	50	124	883	0.0107	3.5	30	0.90	0.10	0.18	2.53	3.77	3.86
NEX	46Y	9.5	0.10	50	124	390	0.0168	3.4	23	0.99	0.10	0.18	1.69	2.54	2.60
NEX	48Y	13.1	0.10	50	134	658	0.0167	3.3	30	0.85	0.10	0.18	2.00	2.97	3.04
NEX	50Y	24.4	0.05	50	134	1,416	0.0105	3.3	30	0.85	0.10	0.14	2.90	4.79	4.91
NEX	53Z	12.8	0.10	50	124	1,273	0.0132	4.0	30	1.03	0.10	0.18	2.37	3.57	3.65
NEX	55Z	24.9	0.10	50	124	1,086	0.0117	3.9	30	1.00	0.10	0.18	4.48	6.72	6.89
NEX	57Z	25.8	0.10	50	124	863	0.0135	3.7	30	0.95	0.10	0.18	4.41	6.59	6.76
NEX	59Z	30.1	0.10	50	124	922	0.0123	3.6	30	0.93	0.10	0.18	5.04	7.52	7.71
NEX	61Z	28.0	0.10	50	124	907	0.0102	3.5	30	0.90	0.10	0.18	4.54	6.76	6.93
NEX	63Z	32.7	0.10	50	124	1,048	0.0113	3.5	30	0.90	0.10	0.18	5.30	7.89	8.09
NEX	65Z	25.7	0.05	50	134	1,003	0.0124	3.4	30	0.87	0.10	0.14	3.13	5.18	5.31
NEX	67Z	9.1	0.01	50	134	399	0.0147	3.4	30	0.87	0.10	0.11	0.87	1.62	1.66
NEX	69Z	24.4	0.01	50	134	1,072	0.0128	3.3	30	0.85	0.10	0.11	2.28	4.24	4.34
NEX	71Z	27.0	0.01	50	134	1,351	0.0092	3.2	30	0.82	0.10	0.11	2.44	4.51	4.62
Outlet 110A															
NEX	101A	8.2	0.10	50	124	1,080	0.0117	4.0	30	1.03	0.10	0.18	1.52	2.29	2.34
NEX	103A	17.4	0.10	50	124	846	0.0126	3.8	30	0.98	0.10	0.18	3.07	4.60	4.71
NEX	105A	18.4	0.10	50	124	782	0.0142	3.7	30	0.95	0.10	0.18	3.15	4.71	4.82

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	107A	24.3	0.10	50	120	822	0.0118	3.6	23	1.05	0.34	0.40	10.21	11.91	12.21
NEX	109A	21.0	0.10	50	120	717	0.0102	3.6	21	1.09	0.35	0.41	9.38	10.89	11.16
Outlet 165B															
NEX	13B	30.0	0.01	50	124	1,041	0.0084	5.6	30	1.44	0.11	0.12	5.18	9.67	9.92
NEX	14B	22.1	0.01	50	134	2,097	0.0097	5.7	30	1.47	0.18	0.19	6.17	9.29	9.53
NEX	20B	38.7	0.01	50	124	1,100	0.0114	5.8	30	1.49	0.12	0.13	7.50	13.47	13.81
NEX	21B	11.2	0.01	50	134	976	0.0116	5.8	29	1.51	0.20	0.21	3.55	5.14	5.27
NEX	28B	24.5	0.01	50	134	1,210	0.0123	6.2	27	1.67	0.24	0.25	10.23	13.96	14.31
NEX	29B	7.6	0.01	50	124	918	0.0157	6.2	30	1.59	0.14	0.15	1.81	3.05	3.12
NEX	35B	15.5	0.01	50	124	1,532	0.0248	6.5	30	1.67	0.15	0.16	4.14	6.78	6.95
NEX	36B	29.0	0.01	50	124	1,706	0.0265	6.6	30	1.70	0.16	0.17	8.38	13.37	13.70
NEX	100B	67.1	0.01	50	120	240	0.0500	8.0	5	4.77	0.75	0.75	240.01	251.51	257.80
NEX	102B	26.0	0.01	50	124	1,058	0.0457	6.8	18	2.22	0.25	0.26	15.01	20.47	20.98
NEX	104B	24.8	0.01	50	124	1,470	0.0295	6.6	30	1.70	0.16	0.17	7.17	11.44	11.72
NEX	106B	18.1	0.01	50	124	959	0.0182	6.4	28	1.70	0.16	0.17	5.23	8.34	8.55
NEX	118B	34.1	0.01	50	124	944	0.0135	6.0	30	1.54	0.13	0.14	7.35	12.76	13.08
NEX	142B	27.0	0.01	50	124	872	0.0100	5.5	30	1.41	0.10	0.11	4.19	8.18	8.38
NEX	144B	24.7	0.01	50	124	1,127	0.0100	5.3	30	1.36	0.10	0.11	3.70	7.20	7.38
NEX	146B	26.0	0.01	50	124	1,083	0.0087	5.1	30	1.31	0.10	0.11	3.75	7.27	7.45
NEX	148B	22.6	0.01	50	124	872	0.0064	4.9	30	1.26	0.10	0.11	3.13	6.05	6.20
NEX	150B	28.5	0.01	50	124	1,358	0.0100	4.6	30	1.18	0.10	0.11	3.70	7.10	7.28
NEX	152B	23.4	0.01	50	124	1,217	0.0094	4.4	30	1.13	0.10	0.11	2.91	5.56	5.70
NEX	154B	20.9	0.02	50	124	807	0.0117	4.2	30	1.08	0.10	0.12	2.71	4.93	5.05
NEX	156B	26.1	0.05	50	124	966	0.0109	4.1	30	1.05	0.10	0.14	3.84	6.45	6.62
NEX	158B	26.4	0.05	50	124	973	0.0103	4.0	30	1.03	0.10	0.14	3.81	6.39	6.55
NEX	160B	29.7	0.05	50	124	1,044	0.0088	3.9	30	1.00	0.10	0.14	4.16	6.96	7.14
NEX	162B	27.9	0.07	50	124	1,101	0.0100	3.8	30	0.98	0.10	0.16	4.37	6.88	7.05
NEX	164B	25.2	0.10	50	124	1,034	0.0097	3.8	30	0.98	0.10	0.18	4.45	6.66	6.83
NEX	108C	959.0	0.01	50	120	2,000	0.0500	8.0	12	3.16	0.66	0.66	2,000.01	2,139.42	2,192.90
NEX	110C	39.7	0.01	50	124	1,568	0.0397	6.7	30	1.72	0.16	0.17	11.61	18.54	19.00
NEX	115C	12.0	0.01	50	124	949	0.0196	6.4	26	1.76	0.17	0.18	3.80	5.93	6.07
NEX	112D	37.7	0.01	50	124	2,150	0.0278	6.7	30	1.72	0.16	0.17	11.02	17.60	18.04
NEX	120E	31.1	0.01	50	124	2,049	0.0310	6.6	30	1.70	0.16	0.17	8.99	14.34	14.70
NEX	122E	18.9	0.01	50	124	866	0.0304	6.5	19	2.07	0.23	0.24	9.39	13.14	13.47
NEX	124E	37.4	0.01	50	134	1,753	0.0175	6.3	30	1.62	0.23	0.24	14.54	20.11	20.61

NEXTLIGHT
AV SOLAR RANCH ONE
PROPOSED CONDITIONS
TCRESULTS

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	Intensity (in./hr)	Cu	Cd	Flowrate (cfs)	Burned Flow	Bulked Flow
50-YEAR STORM															
NEX	126E	21.3	0.01	50	134	919	0.0177	6.1	19	1.94	0.30	0.31	12.81	16.37	16.78
NEX	128E	16.6	0.01	50	134	904	0.0144	6.0	20	1.87	0.29	0.30	9.31	12.01	12.31
NEX	131F	13.6	0.01	50	134	906	0.0318	6.5	13	2.48	0.39	0.40	13.49	16.12	16.53
NEX	133F	26.1	0.01	50	134	1,224	0.0214	6.4	21	1.95	0.30	0.31	15.78	20.17	20.67
NEX	135F	37.2	0.01	50	134	1,787	0.0163	6.2	30	1.59	0.22	0.23	13.60	19.09	19.56
NEX	137F	24.5	0.01	50	134	979	0.0194	6.0	20	1.87	0.29	0.30	13.74	17.72	18.16
NEX	139F	14.3	0.01	50	134	790	0.0144	5.9	18	1.93	0.30	0.31	8.56	10.94	11.21

APPENDIX E:

HYDROLOGY ANALYSIS

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinA.lac Run date: Fri Sep 18 16:21:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	4.66	40.0	4.66	1.491	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	2A	0.0	0.00	40.0	4.66	1.487	2	2398	0.00920	0.00	0.00	0	124	0	4.20	0.00
1	3A	39.8	4.20	79.8	6.74	2.829	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1	4A	0.0	0.00	79.8	6.74	2.816	2	1498	0.00970	0.00	0.00	0	124	0	3.80	0.00
1	5A	38.3	3.83	118.1	9.03	4.040	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	6A	0.0	0.00	118.1	9.03	4.021	2	1253	0.00910	0.00	0.00	0	124	0	3.60	0.00
1	7A	32.4	3.15	150.5	10.79	5.028	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	8A	0.0	0.00	150.5	10.79	5.005	2	1114	0.01010	0.00	0.00	0	124	0	3.50	0.00
1	9A	27.7	2.61	178.2	11.96	5.841	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	10A	0.0	0.00	178.2	11.96	5.804	2	1242	0.00870	0.00	0.00	0	124	0	3.40	0.00
1	11A	33.9	3.20	212.1	12.98	6.828	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	12A	0.0	0.00	212.1	12.98	6.777	2	1469	0.00990	0.00	0.00	0	124	0	3.40	0.00
1	13A	38.9	3.56	251.0	14.01	7.917	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1	14A	0.0	0.00	251.0	14.01	7.865	2	1177	0.00870	0.00	0.00	0	134	0	3.30	0.00
1	15A	38.3	3.40	289.3	15.36	8.953	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	16A	0.0	0.00	289.3	15.36	8.909	2	994	0.01040	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinA-burn.lac Run date: Fri Sep 18 16:22:57 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	5.63	212.1	21.58	8.400	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	12A	0.0	0.00	212.1	21.58	8.346	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	7.92	251.0	23.48	9.870	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	14A	0.0	0.00	251.0	23.48	9.816	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	7.44	289.3	26.70	11.260	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	16A	0.0	0.00	289.3	26.70	11.213	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinA-burn.lac Run date: Fri Sep 18 16:22:57 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	5.63	212.1	21.58	8.400	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	12A	0.0	0.00	212.1	21.58	8.346	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	7.92	251.0	23.48	9.870	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	14A	0.0	0.00	251.0	23.48	9.816	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	7.44	289.3	26.70	11.260	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	16A	0.0	0.00	289.3	26.70	11.213	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Qbb = 26.70 x 1.025 = 27.37 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinB.lac Run date: Fri Sep 18 16:24:34 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	2.09	22.1	2.09	0.667	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	2B	0.0	0.00	22.1	2.09	0.665	2	2664	0.00930	0.00	0.00	0	124	0	3.40	0.00
1	3B	39.9	3.54	62.0	4.34	1.799	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.01
1	4B	0.0	0.00	62.0	4.34	1.794	2	1443	0.01240	0.00	0.00	0	124	0	3.20	0.00
1	5B	39.0	3.46	101.0	7.03	2.902	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.01
1	6B	0.0	0.00	101.0	7.03	2.897	2	732	0.01030	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinB-burn.lac Run date: Fri Sep 18 16:25:51 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	3.67	22.1	3.67	0.807	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	2B	0.0	0.00	22.1	3.67	0.804	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	6.08	62.0	7.14	2.161	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1	4B	0.0	0.00	62.0	7.14	2.156	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	5.94	101.0	11.60	3.483	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1	6B	0.0	0.00	101.0	11.60	3.478	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinB-burn.lac Run date: Fri Sep 18 16:25:51 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	3.67	22.1	3.67	0.807	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	2B	0.0	0.00	22.1	3.67	0.804	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	6.08	62.0	7.14	2.161	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1	4B	0.0	0.00	62.0	7.14	2.156	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	5.94	101.0	11.60	3.483	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1	6B	0.0	0.00	101.0	11.60	3.478	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Qbb = 11.60 x 1.025 = 11.89 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinC.lac Run date: Mon Sep 21 18:17:33 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	4.10	17.8	4.10	1.000	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1	2C	0.0	0.00	17.8	4.10	0.999	2	1591	0.02010	0.00	0.00	0	124	0	6.20	0.00
1	3C	15.5	3.22	33.3	5.94	1.835	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1	4C	0.0	0.00	33.3	5.94	1.834	2	1045	0.01800	0.00	0.00	0	124	0	6.00	0.00
1	5C	29.5	5.50	62.8	9.76	3.364	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	6C	0.0	0.00	62.8	9.76	3.361	2	1347	0.01730	0.00	0.00	0	124	0	5.80	0.00
1	7C	25.1	4.42	87.9	12.63	4.637	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	8C	0.0	0.00	87.9	12.63	4.630	2	1037	0.01750	0.00	0.00	0	124	0	5.70	0.00
1	9C	20.7	3.44	108.6	14.85	5.661	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1	10C	0.0	0.00	108.6	14.85	5.652	2	733	0.01640	0.00	0.00	0	124	0	5.60	0.00
1	11C	25.8	4.03	134.4	17.55	6.913	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	12C	0.0	0.00	134.4	17.55	6.902	2	713	0.01620	0.00	0.00	0	124	0	5.50	0.00
1	13C	31.9	4.99	166.3	20.90	8.461	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	14C	0.0	0.00	166.3	20.90	8.442	2	939	0.01560	0.00	0.00	0	124	0	5.50	0.00
1	15C	34.6	5.19	200.9	24.28	10.101	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	16C	0.0	0.00	200.9	24.28	10.077	2	903	0.01260	0.00	0.00	0	124	0	5.40	0.00
1	17C	32.8	4.73	233.7	27.18	11.591	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	18C	0.0	0.00	233.7	27.18	11.556	2	1112	0.01420	0.00	0.00	0	124	0	5.20	0.00
1	19C	23.2	3.22	256.9	28.61	12.586	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	20C	0.0	0.00	256.9	28.61	12.535	2	1160	0.01210	0.00	0.00	0	124	0	5.00	0.00
1	21C	29.7	3.87	286.6	29.46	13.774	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1	22C	0.0	0.00	286.6	29.46	13.688	2	1549	0.01130	0.00	0.00	0	124	0	4.70	0.00
1	23C	35.4	4.13	322.0	30.15	15.008	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	24C	0.0	0.00	322.0	30.15	14.867	2	1993	0.01060	0.00	0.00	0	124	0	4.20	0.00
1	25C	28.1	3.04	350.1	30.33	15.840	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1	26C	0.0	0.00	350.1	30.33	15.775	2	765	0.00890	0.00	0.00	0	124	0	3.90	0.00
1	27C	35.0	3.50	385.1	30.97	16.894	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	28C	0.0	0.00	385.1	30.97	16.705	2	1922	0.00820	0.00	0.00	0	124	0	3.60	0.00
1	29C	34.0	3.30	419.1	31.12	17.761	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	30C	0.0	0.00	419.1	31.12	17.622	2	1457	0.01040	0.00	0.00	0	124	0	3.50	0.00
1	31C	29.3	2.77	448.4	31.39	18.507	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	32C	0.0	0.00	448.4	31.39	18.382	2	1251	0.01080	0.00	0.00	0	124	0	3.40	0.00
1	33C	35.6	3.26	484.0	31.79	19.425	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1	34C	0.0	0.00	484.0	31.79	19.200	2	2107	0.01100	0.00	0.00	0	124	0	3.30	0.00
1	35D	16.7	3.32	16.7	3.32	0.787	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	36D	0.0	0.00	16.7	3.32	0.786	2	1299	0.01300	0.00	0.00	0	134	0	5.20	0.00
1	37D	29.0	4.02	45.7	6.36	2.074	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	38D	0.0	0.00	45.7	6.36	2.072	2	1308	0.01380	0.00	0.00	0	124	0	5.00	0.00
1	39D	29.9	3.98	75.6	9.09	3.347	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	40D	0.0	0.00	75.6	9.09	3.337	2	1530	0.01050	0.00	0.00	0	124	0	4.80	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	2.67	97.0	10.06	4.191	0	0	0.00000	0.00	0.00	0	124	30	4.50	0.01
1 42D	0.0	0.00	97.0	10.06	4.174	2	1185	0.01070	0.00	0.00	0	124	0	4.50	0.00
1 43D	26.1	3.04	123.1	11.15	5.147	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 44D	0.0	0.00	123.1	11.15	5.113	2	1524	0.01060	0.00	0.00	0	124	0	4.20	0.00
1 45D	30.2	3.35	153.3	12.05	6.185	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 46D	0.0	0.00	153.3	12.05	6.128	2	1697	0.00840	0.00	0.00	0	124	0	4.00	0.00
1 47D	30.2	3.02	183.5	12.39	7.093	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 48D	0.0	0.00	183.5	12.39	7.047	2	1239	0.00990	0.00	0.00	0	124	0	3.60	0.00
1 49D	39.0	3.79	222.5	13.97	8.259	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 50D	0.0	0.00	222.5	13.97	8.189	2	1500	0.00870	0.00	0.00	0	124	0	3.50	0.00
1 51D	31.8	3.00	254.3	14.91	9.148	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 52D	0.0	0.00	254.3	14.91	9.090	2	1258	0.01140	0.00	0.00	0	124	0	3.40	0.00
1 53D	23.0	2.17	277.3	15.50	9.784	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 54D	0.0	0.00	277.3	15.50	9.713	2	1118	0.00760	0.00	0.00	0	124	0	3.40	0.00
1 55D	14.6	1.34	291.9	15.59	10.141	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1 56D	0.0	0.00	291.9	15.59	10.063	2	1256	0.00990	0.00	0.00	0	124	0	3.30	0.00

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*****************************************************************************************************************
*                                                    CONFLUENCE Q'S                                             *
* 1   57C  TC 1256 QC    31.48 QCD    45.65 QD    14.17       1   57D  TD 1205 QD    15.49 QD    -0.00 Q°C    25.68 Q      1.#R
*                                        1   57CD TCD 1254 QCD    45.67 QC    31.45 QD    14.22
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	15.49	775.9	45.67	29.260	2	5	0.00100	0.00	0.00	0	124	0	3.30	0.00
1 58E	12.6	1.15	12.6	1.15	0.369	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1 59E	0.0	0.00	12.6	1.15	0.366	2	1440	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 60E	28.7	2.55	41.3	3.21	1.182	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.01
1 61E	0.0	0.00	41.3	3.21	1.174	2	3334	0.01150	0.00	0.00	0	124	0	3.20	0.00
1 62F	16.5	3.61	16.5	3.61	0.909	0	0	0.00000	0.00	0.00	0	124	30	6.10	0.01
1 63F	0.0	0.00	16.5	3.61	0.908	2	1673	0.02100	0.00	0.00	0	124	0	6.10	0.00
1 64F	24.0	4.99	40.5	7.04	2.203	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1 65F	0.0	0.00	40.5	7.04	2.202	2	955	0.02000	0.00	0.00	0	124	0	6.00	0.00
1 66F	33.9	6.32	74.4	12.02	3.960	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 67F	0.0	0.00	74.4	12.02	3.959	2	1251	0.01830	0.00	0.00	0	124	0	5.80	0.00
1 68F	29.6	5.21	104.0	15.74	5.463	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1 69F	0.0	0.00	104.0	15.74	5.455	2	1122	0.01740	0.00	0.00	0	124	0	5.70	0.00
1 70F	25.9	4.30	129.9	18.58	6.746	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 71F	0.0	0.00	129.9	18.58	6.734	2	874	0.01460	0.00	0.00	0	124	0	5.60	0.00
1 72F	26.7	4.17	156.6	21.14	8.038	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 73F	0.0	0.00	156.6	21.14	8.021	2	907	0.01500	0.00	0.00	0	124	0	5.50	0.00
1 74F	29.9	4.48	186.5	23.58	9.454	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1 75F	0.0	0.00	186.5	23.58	9.432	2	876	0.01400	0.00	0.00	0	124	0	5.40	0.00
1 76F	39.5	5.70	226.0	26.63	11.256	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1 77F	0.0	0.00	226.0	26.63	11.227	2	987	0.01600	0.00	0.00	0	124	0	5.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	5.39	264.8	29.56	12.950	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 79F	0.0	0.00	264.8	29.56	12.916	2	900	0.01300	0.00	0.00	0	124	0	5.00	0.00
1 80F	39.6	5.28	304.4	32.44	14.603	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 81F	0.0	0.00	304.4	32.44	14.569	2	831	0.01430	0.00	0.00	0	124	0	4.80	0.00
1 82F	39.9	5.09	344.3	35.33	16.198	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 83F	0.0	0.00	344.3	35.33	16.156	2	829	0.01210	0.00	0.00	0	124	0	4.60	0.00
1 84F	39.8	4.86	384.1	37.91	17.710	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 85F	0.0	0.00	384.1	37.91	17.660	2	853	0.01170	0.00	0.00	0	124	0	4.40	0.00
1 86F	39.1	4.78	423.2	40.15	19.187	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 87F	0.0	0.00	423.2	40.15	19.107	2	1094	0.00990	0.00	0.00	0	124	0	4.40	0.00
1 88F	22.9	2.67	446.1	40.45	19.960	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 89F	0.0	0.00	446.1	40.45	19.881	2	845	0.00780	0.00	0.00	0	124	0	4.20	0.00
1 90F	36.2	3.92	482.3	41.35	21.134	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1 91F	0.0	0.00	482.3	41.35	20.962	2	1675	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 92F	23.7	2.37	506.0	41.37	21.719	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 93F	0.0	0.00	506.0	41.37	21.575	2	1298	0.00950	0.00	0.00	0	124	0	3.60	0.00
1 94F	17.9	1.74	523.9	41.47	22.132	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 95F	0.0	0.00	523.9	41.47	22.003	2	1020	0.00840	0.00	0.00	0	124	0	3.50	0.00
1 96F	22.5	2.12	546.4	41.70	22.682	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 97F	0.0	0.00	546.4	41.70	22.468	2	1387	0.00640	0.00	0.00	0	124	0	3.40	0.00
1 98F	21.4	2.02	567.8	41.67	23.113	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 99F	0.0	0.00	567.8	41.67	22.954	2	1222	0.00990	0.00	0.00	0	124	0	3.40	0.00
1 100F	16.7	1.53	584.5	41.74	23.443	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1 101F	0.0	0.00	584.5	41.74	23.285	2	1247	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 102F	23.0	2.04	607.5	41.91	23.939	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.01
1 103F	0.0	0.00	607.5	41.91	23.482	2	3287	0.01110	0.00	0.00	0	124	0	3.20	0.00
1 104G	18.2	1.67	18.2	1.67	0.533	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 105G	0.0	0.00	18.2	1.67	0.532	2	1898	0.01040	0.00	0.00	0	134	0	3.30	0.00
1 106G	39.9	3.54	58.1	4.31	1.665	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 107G	0.0	0.00	58.1	4.31	1.656	2	2469	0.00900	0.00	0.00	0	134	0	3.20	0.00
1 109C	21.4	1.90	797.3	45.96	29.868	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.01
1 108CE	41.3	2.63	838.6	47.21	31.043	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00
1 109CF	607.5	40.95	1446.1	87.73	54.524	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00

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*                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1259 QC    87.73 QCG    89.19 QG     1.46       1  110G  TG 1194 QG     3.79 QG     0.44 Q2C    68.81 Q      1.#R
*                                      1  110CG TCG 1258 QCG    89.21 QC    87.73 QG     1.48
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	3.79	1504.2	89.21	55.518	2	2279	0.00940	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinC-burn.lac Run date: Mon Sep 21 16:40:42 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	5.66	484.0	62.94	25.440	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	34C	0.0	0.00	484.0	62.94	25.196	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	7.06	16.7	7.06	1.181	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	36D	0.0	0.00	16.7	7.06	1.180	2	1299	0.01300	0.00	0.00	0	336	0	5.20	0.00
1	37D	29.0	8.52	45.7	13.82	2.864	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	13.82	2.862	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	19.54	4.513	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	40D	0.0	0.00	75.6	19.54	4.502	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1	41D	21.4	5.36	97.0	21.36	5.594	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42D	0.0	0.00	97.0	21.36	5.574	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.74	6.799	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.74	6.762	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	23.02	8.099	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	23.02	8.037	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	23.52	9.216	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	23.52	9.166	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	6.75	222.5	24.31	10.639	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 50D	0.0	0.00	222.5	24.31	10.563	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	5.28	254.3	24.81	11.724	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 52D	0.0	0.00	254.3	24.81	11.661	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	3.82	277.3	25.20	12.501	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 54D	0.0	0.00	277.3	25.20	12.424	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	2.32	291.9	25.35	12.938	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 56D	0.0	0.00	291.9	25.35	12.855	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   57C  TC 1242 QC    61.96 QCD    87.24 QD    25.28       1   57D  TD 1244 QD    25.30 QD     0.00 QeC    61.87 Q      1.#R
*                                     1   57CD TCD 1242 QCD    87.24 QC    61.96 QD    25.28
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	25.30	775.9	87.24	38.048	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.00	12.6	2.00	0.444	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 59E	0.0	0.00	12.6	2.00	0.442	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	4.37	41.3	5.39	1.418	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 61E	0.0	0.00	41.3	5.39	1.410	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.28	30.124	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	2.66	584.5	81.15	30.712	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 101F	0.0	0.00	584.5	81.15	30.542	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	3.50	607.5	81.16	31.324	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 103F	0.0	0.00	607.5	81.16	30.829	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	3.71	18.2	3.71	0.713	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 105G	0.0	0.00	18.2	3.71	0.712	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	7.75	58.1	9.11	2.216	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 107G	0.0	0.00	58.1	9.11	2.205	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	3.26	797.3	87.58	38.775	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 108CE	41.3	4.29	838.6	89.53	40.186	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00
1 109CF	607.5	78.64	1446.1	167.15	71.015	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 110C TC 1246 QC 167.15 QCG 169.64 QG 2.49 1 110G TG 1190 QG 7.87 QG-
466286564351930900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000.00 QÑC 104.50 Q 1.#R
* 1 110CG TCG 1246 QCG 169.64 QC 167.15 QG 2.49
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	7.87	1504.2	169.64	72.505	2	2279	0.00940	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinC-burn.lac Run date: Mon Sep 21 16:40:42 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	5.66	484.0	62.94	25.440	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	34C	0.0	0.00	484.0	62.94	25.196	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	7.06	16.7	7.06	1.181	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	36D	0.0	0.00	16.7	7.06	1.180	2	1299	0.01300	0.00	0.00	0	336	0	5.20	0.00
1	37D	29.0	8.52	45.7	13.82	2.864	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	13.82	2.862	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	19.54	4.513	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	40D	0.0	0.00	75.6	19.54	4.502	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1	41D	21.4	5.36	97.0	21.36	5.594	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42D	0.0	0.00	97.0	21.36	5.574	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.74	6.799	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.74	6.762	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	23.02	8.099	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	23.02	8.037	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	23.52	9.216	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	23.52	9.166	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	6.75	222.5	24.31	10.639	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 50D	0.0	0.00	222.5	24.31	10.563	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	5.28	254.3	24.81	11.724	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 52D	0.0	0.00	254.3	24.81	11.661	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	3.82	277.3	25.20	12.501	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 54D	0.0	0.00	277.3	25.20	12.424	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	2.32	291.9	25.35	12.938	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 56D	0.0	0.00	291.9	25.35	12.855	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   57C  TC 1242 QC    61.96 QCD    87.24 QD    25.28       1   57D  TD 1244 QD    25.30 QD     0.00 QeC    61.87 Q      1.#R
*                                     1   57CD TCD 1242 QCD    87.24 QC    61.96 QD    25.28
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	25.30	775.9	87.24	38.048	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.00	12.6	2.00	0.444	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 59E	0.0	0.00	12.6	2.00	0.442	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	4.37	41.3	5.39	1.418	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 61E	0.0	0.00	41.3	5.39	1.410	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.28	30.124	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	2.66	584.5	81.15	30.712	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1 101F	0.0	0.00	584.5	81.15	30.542	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	3.50	607.5	81.16	31.324	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 103F	0.0	0.00	607.5	81.16	30.829	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	3.71	18.2	3.71	0.713	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 105G	0.0	0.00	18.2	3.71	0.712	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	7.75	58.1	9.11	2.216	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 107G	0.0	0.00	58.1	9.11	2.205	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	3.26	797.3	87.58	38.775	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.01
1 108CE	41.3	4.29	838.6	89.53	40.186	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00
1 109CF	607.5	78.64	1446.1	167.15	71.015	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                                *
* 1  110C  TC 1246 QC   167.15 QCG   169.64 QG     2.49       1  110G  TG 1190 QG     7.87 QG-
466286564351930900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000.00 QÑC   104.50 Q      1.#R
*                                          1  110CG TCG 1246 QCG   169.64 QC   167.15 QG     2.49
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	7.87	1504.2	169.64	72.505	2	2279	0.00940	0.00	0.00	0	332	0	3.20	0.00

Qbb = 169.64 x 1.025 = 173.88 cfs
Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinH.lac Run date: Fri Sep 18 16:44:40 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.74	19.0	1.74	0.557	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1	2H	0.0	0.00	19.0	1.74	0.555	2	1718	0.00900	0.00	0.00	0	134	0	3.30	0.00
1	3H	39.5	3.51	58.5	4.35	1.677	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	4H	0.0	0.00	58.5	4.35	1.674	2	1850	0.01120	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinH-burn.lac Run date: Fri Sep 18 16:49:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	3.87	19.0	3.87	0.744	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	2H	0.0	0.00	19.0	3.87	0.743	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	7.67	58.5	9.20	2.233	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	4H	0.0	0.00	58.5	9.20	2.228	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinH-burn.lac Run date: Fri Sep 18 16:49:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	3.87	19.0	3.87	0.744	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	2H	0.0	0.00	19.0	3.87	0.743	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	7.67	58.5	9.20	2.233	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	4H	0.0	0.00	58.5	9.20	2.228	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Qbb = 9.20 x 1.025 = 9.43 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinI.lac Run date: Fri Sep 18 16:53:17 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	2.01	10.8	2.01	0.560	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	2I	0.0	0.00	10.8	2.01	0.559	2	1416	0.01690	0.00	0.00	0	124	0	5.80	0.00
1	3I	18.1	3.19	28.9	4.30	1.479	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	4I	0.0	0.00	28.9	4.30	1.479	2	929	0.01630	0.00	0.00	0	124	0	5.70	0.00
1	5I	12.8	5.42	41.7	8.09	2.167	0	0	0.00000	0.00	0.00	0	124	16	5.70	0.01
1	6I	0.0	0.00	41.7	8.09	2.166	2	459	0.01690	0.00	0.00	0	124	0	5.70	0.00
1	7I	16.5	9.67	58.2	16.69	3.092	0	0	0.00000	0.00	0.00	0	134	16	5.60	0.01
1	8I	0.0	0.00	58.2	16.69	3.092	2	616	0.01360	0.00	0.00	0	134	0	5.60	0.00
1	9I	25.9	9.37	84.1	24.41	4.481	0	0	0.00000	0.00	0.00	0	134	24	5.60	0.01
1	10I	0.0	0.00	84.1	24.41	4.479	2	879	0.01490	0.00	0.00	0	134	0	5.60	0.00
1	11I	26.8	6.50	110.9	28.56	5.838	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1	12I	0.0	0.00	110.9	28.56	5.830	2	968	0.01270	0.00	0.00	0	134	0	5.50	0.00
1	13I	31.1	6.62	142.0	31.09	7.332	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1	14I	0.0	0.00	142.0	31.09	7.313	2	1180	0.01260	0.00	0.00	0	134	0	5.30	0.00
1	15I	37.7	7.48	179.7	33.50	9.090	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	16I	0.0	0.00	179.7	33.50	9.054	2	1443	0.01290	0.00	0.00	0	134	0	5.20	0.00
1	17I	27.6	4.37	207.3	33.01	10.262	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1	18I	0.0	0.00	207.3	33.01	10.231	2	900	0.01190	0.00	0.00	0	134	0	4.90	0.00
1	19I	25.5	3.71	232.8	33.38	11.321	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1	20I	0.0	0.00	232.8	33.38	11.288	2	838	0.01250	0.00	0.00	0	134	0	4.80	0.00
1	21I	37.2	4.75	270.0	34.20	12.807	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1	22I	0.0	0.00	270.0	34.20	12.748	2	1165	0.01030	0.00	0.00	0	134	0	4.60	0.00
1	23I	34.3	4.19	304.3	34.50	14.088	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1	24I	0.0	0.00	304.3	34.50	14.029	2	1034	0.01070	0.00	0.00	0	134	0	4.40	0.00
1	25I	38.0	4.43	342.3	35.02	15.446	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1	26I	0.0	0.00	342.3	35.02	15.377	2	1049	0.01010	0.00	0.00	0	134	0	4.20	0.00
1	27I	39.5	4.17	381.8	35.46	16.710	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1	28I	0.0	0.00	381.8	35.46	16.541	2	2077	0.00930	0.00	0.00	0	134	0	3.80	0.00
1	29I	29.4	2.86	411.2	35.01	17.455	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1	30I	0.0	0.00	411.2	35.01	17.302	2	1661	0.00960	0.00	0.00	0	134	0	3.50	0.00
1	31I	39.6	3.74	450.8	35.13	18.497	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1	32I	0.0	0.00	450.8	35.13	18.367	2	1306	0.00980	0.00	0.00	0	134	0	3.40	0.00
1	33I	39.3	3.71	490.1	35.44	19.553	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1	34I	0.0	0.00	490.1	35.44	19.387	2	1279	0.00660	0.00	0.00	0	134	0	3.40	0.00
1	35I	26.7	2.45	516.8	35.49	20.169	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1	36I	0.0	0.00	516.8	35.49	20.078	2	878	0.01140	0.00	0.00	0	134	0	3.30	0.00
1	37I	37.9	3.37	554.7	35.89	21.155	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	38I	0.0	0.00	554.7	35.89	20.907	2	1809	0.00760	0.00	0.00	0	134	0	3.20	0.00
1	39J	27.8	5.52	27.8	5.52	1.310	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	40J	0.0	0.00	27.8	5.52	1.310	2	1645	0.01190	0.00	0.00	0	134	0	5.20	0.00
1	41J	18.8	3.22	46.6	6.65	2.153	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1	42J	0.0	0.00	46.6	6.65	2.152	2	760	0.01290	0.00	0.00	0	134	0	5.00	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 43J	32.3	5.11	78.9	9.93	3.566	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1 44J	0.0	0.00	78.9	9.93	3.562	2	1022	0.01280	0.00	0.00	0	134	0	4.90	0.00
1 45J	32.3	4.31	111.2	13.04	4.910	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1 46J	0.0	0.00	111.2	13.04	4.897	2	1126	0.01150	0.00	0.00	0	134	0	4.70	0.00
1 47J	27.3	3.33	138.5	15.12	5.963	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1 48J	0.0	0.00	138.5	15.12	5.942	2	1116	0.01060	0.00	0.00	0	134	0	4.40	0.00
1 49J	22.5	2.62	161.0	15.96	6.781	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1 50J	0.0	0.00	161.0	15.96	6.754	2	1019	0.01040	0.00	0.00	0	134	0	4.20	0.00
1 51J	18.6	1.96	179.6	16.16	7.381	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 52J	0.0	0.00	179.6	16.16	7.344	2	1085	0.00980	0.00	0.00	0	134	0	3.80	0.00
1 53J	35.3	3.72	214.9	16.95	8.534	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 54J	0.0	0.00	214.9	16.95	8.477	2	1400	0.01030	0.00	0.00	0	134	0	3.80	0.00
1 55J	40.0	4.00	254.9	17.67	9.756	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 56J	0.0	0.00	254.9	17.67	9.672	2	1510	0.00790	0.00	0.00	0	134	0	3.60	0.00
1 57J	40.0	3.78	294.9	18.27	10.880	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 58J	0.0	0.00	294.9	18.27	10.795	2	1410	0.00900	0.00	0.00	0	134	0	3.40	0.00
1 59J	37.3	3.42	332.2	18.83	11.888	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 60J	0.0	0.00	332.2	18.83	11.792	2	1434	0.00910	0.00	0.00	0	134	0	3.30	0.00
1 61J	28.5	2.53	360.7	19.19	12.601	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 62J	0.0	0.00	360.7	19.19	12.420	2	2082	0.00730	0.00	0.00	0	134	0	3.20	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                 *
* 1   63I  TI 1273 QI    35.47 QIJ    53.48 QJ    18.01       1   63J  TJ 1249 QJ    19.15 QJ49633401453746598000000000000000000.00
Q I    32.49 Q      1.#R
*                                        1   63IJ TIJ 1268 QIJ    53.74 QI    35.28 QJ    18.46
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	19.15	915.4	53.74	33.326	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinI-burn.lac Run date: Fri Sep 18 16:56:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	7.37	41.7	13.66	2.883	0	0	0.00000	0.00	0.00	0	332	16	5.70	0.01
1	6I	0.0	0.00	41.7	13.66	2.882	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	13.05	58.2	24.62	4.205	0	0	0.00000	0.00	0.00	0	336	16	5.60	0.01
1	8I	0.0	0.00	58.2	24.62	4.205	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	14.77	84.1	37.99	6.249	0	0	0.00000	0.00	0.00	0	336	24	5.60	0.01
1	10I	0.0	0.00	84.1	37.99	6.246	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	48.53	8.291	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	48.53	8.281	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	58.64	10.537	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	58.64	10.518	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	68.18	13.184	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	68.18	13.144	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	71.18	14.946	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	71.18	14.912	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	72.82	16.532	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	72.82	16.496	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	74.59	18.730	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	74.59	18.665	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	75.94	20.608	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	75.94	20.542	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	77.28	22.568	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	77.28	22.491	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	78.38	24.341	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	78.38	24.154	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	6.56	411.2	78.38	25.394	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	30I	0.0	0.00	411.2	78.38	25.223	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	8.45	450.8	78.81	26.834	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	32I	0.0	0.00	450.8	78.81	26.689	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	8.38	490.1	79.35	28.287	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	34I	0.0	0.00	490.1	79.35	28.102	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	5.44	516.8	79.45	29.148	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	36I	0.0	0.00	516.8	79.45	29.046	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	7.36	554.7	80.02	30.475	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	38I	0.0	0.00	554.7	80.02	30.197	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1	41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	8.97	214.9	43.29	12.483	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 54J	0.0	0.00	214.9	43.29	12.420	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	9.33	254.9	44.07	14.169	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 56J	0.0	0.00	254.9	44.07	14.076	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	8.53	294.9	44.49	15.703	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 58J	0.0	0.00	294.9	44.49	15.609	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	7.59	332.2	44.94	17.070	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 60J	0.0	0.00	332.2	44.94	16.963	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	5.53	360.7	45.14	18.037	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 62J	0.0	0.00	360.7	45.14	17.835	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

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*                                                                CONFLUENCE Q'S                                                 *
* 1   63I  TI 1244 QI    79.29 QIJ   122.95 QJ    43.66       1   63J  TJ 1237 QJ    44.46
QJ171833857091821700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QtI    78.14
Q      1.#R
*                                        1   63IJ TIJ 1241 QIJ   123.27 QI    79.09 QJ    44.18
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	44.46	915.4	123.27	48.031	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinI-burn.lac Run date: Fri Sep 18 16:56:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	7.37	41.7	13.66	2.883	0	0	0.00000	0.00	0.00	0	332	16	5.70	0.01
1	6I	0.0	0.00	41.7	13.66	2.882	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	13.05	58.2	24.62	4.205	0	0	0.00000	0.00	0.00	0	336	16	5.60	0.01
1	8I	0.0	0.00	58.2	24.62	4.205	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	14.77	84.1	37.99	6.249	0	0	0.00000	0.00	0.00	0	336	24	5.60	0.01
1	10I	0.0	0.00	84.1	37.99	6.246	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	48.53	8.291	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	48.53	8.281	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	58.64	10.537	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	58.64	10.518	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	68.18	13.184	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	68.18	13.144	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	71.18	14.946	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	71.18	14.912	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	72.82	16.532	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	72.82	16.496	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	74.59	18.730	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	74.59	18.665	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	75.94	20.608	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	75.94	20.542	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	77.28	22.568	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	77.28	22.491	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	78.38	24.341	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	78.38	24.154	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	6.56	411.2	78.38	25.394	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	30I	0.0	0.00	411.2	78.38	25.223	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	8.45	450.8	78.81	26.834	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	32I	0.0	0.00	450.8	78.81	26.689	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	8.38	490.1	79.35	28.287	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	34I	0.0	0.00	490.1	79.35	28.102	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	5.44	516.8	79.45	29.148	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1	36I	0.0	0.00	516.8	79.45	29.046	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	7.36	554.7	80.02	30.475	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	38I	0.0	0.00	554.7	80.02	30.197	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1	41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	8.97	214.9	43.29	12.483	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 54J	0.0	0.00	214.9	43.29	12.420	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	9.33	254.9	44.07	14.169	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 56J	0.0	0.00	254.9	44.07	14.076	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	8.53	294.9	44.49	15.703	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 58J	0.0	0.00	294.9	44.49	15.609	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	7.59	332.2	44.94	17.070	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 60J	0.0	0.00	332.2	44.94	16.963	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	5.53	360.7	45.14	18.037	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 62J	0.0	0.00	360.7	45.14	17.835	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

```
*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                 *
* 1   63I  TI 1244 QI    79.29 QIJ   122.95 QJ    43.66       1   63J  TJ 1237 QJ    44.46
QJ171833857091821700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QtI    78.14
Q      1.#R
*                                        1   63IJ TIJ 1241 QIJ   123.27 QI    79.09 QJ    44.18
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	44.46	915.4	123.27	48.031	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 123.27 x 1.025 = 126.35 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinK.lac Run date: Wed Sep 23 11:36:33 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1K	353.1	884.88	353.1	884.88	41.569	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1 2K	0.0	0.00	353.1	884.88	41.545	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 3K	21.5	16.52	374.6	889.30	42.909	0	0	0.00000	0.00	0.00	0	124	12	6.40	0.01
1 4K	0.0	0.00	374.6	889.30	42.909	2	571	0.03050	0.00	0.00	0	124	0	6.40	0.00
1 5K	39.6	9.57	414.2	892.76	45.177	0	0	0.00000	0.00	0.00	0	124	30	6.30	0.01
1 6B	39.7	3.53	39.7	3.53	1.128	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 6K	0.0	0.00	414.2	892.76	45.178	2	1014	0.02040	0.00	0.00	0	134	0	3.20	0.00
1 7K	39.6	9.11	453.8	882.30	47.402	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1 8K	0.0	0.00	453.8	882.30	47.418	2	1054	0.01830	0.00	0.00	0	124	0	6.20	0.00
1 9K	30.7	15.90	484.5	878.31	49.259	0	0	0.00000	0.00	0.00	0	134	21	6.00	0.01
1 10K	0.0	0.00	484.5	878.31	49.254	2	957	0.01610	0.00	0.00	0	134	0	6.00	0.00
1 11K	33.2	10.17	517.7	870.84	51.105	0	0	0.00000	0.00	0.00	0	134	30	5.90	0.01
1 12K	0.0	0.00	517.7	870.84	51.019	2	1511	0.01470	0.00	0.00	0	134	0	5.90	0.00
1 13L	28.8	30.99	28.8	30.99	2.035	0	0	0.00000	0.00	0.00	0	134	12	6.60	0.01
1 14L	0.0	0.00	28.8	30.99	2.035	2	659	0.02120	0.00	0.00	0	134	0	6.60	0.00
1 15L	24.8	25.98	53.6	52.41	3.753	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1 16L	0.0	0.00	53.6	52.41	3.751	2	724	0.02090	0.00	0.00	0	134	0	6.50	0.00
1 17B	39.1	3.69	78.8	7.22	2.308	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 18L	0.0	0.00	53.6	50.29	3.750	2	1152	0.01700	0.00	0.00	0	134	0	3.40	0.00
1 19L	21.3	8.02	74.9	50.95	5.029	0	0	0.00000	0.00	0.00	0	134	29	6.20	0.01
1 20L	0.0	0.00	74.9	50.95	5.024	2	1374	0.01640	0.00	0.00	0	134	0	6.20	0.00
1 21L	17.9	5.79	92.8	48.23	6.046	0	0	0.00000	0.00	0.00	0	134	30	6.00	0.01
1 22L	0.0	0.00	92.8	48.23	6.026	2	1523	0.01560	0.00	0.00	0	134	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   23K  TK 1166 QK   827.13 QKL   839.67 QL    12.55       1   23L  TL 1180 QL    42.41 QL    -0.00 Q)K   210.07 Q      1.#R
*                                        1   23KL TKL 1166 QKL   839.67 QK   827.13 QL    12.55
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 23KL	92.8	42.41	610.5	839.67	56.972	2	709	0.01300	0.00	0.00	0	134	0	6.00	0.00
1 24K	30.9	13.52	641.4	833.86	58.659	0	0	0.00000	0.00	0.00	0	134	21	5.60	0.01
1 25K	0.0	0.00	641.4	833.86	58.574	2	778	0.01320	0.00	0.00	0	134	0	5.60	0.00
1 26K	32.3	8.78	673.7	828.64	60.260	0	0	0.00000	0.00	0.00	0	134	29	5.60	0.01
1 27K	0.0	0.00	673.7	828.64	60.162	2	881	0.01070	0.00	0.00	0	134	0	5.60	0.00
1 28K	28.9	7.00	702.6	814.62	61.628	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1 29K	0.0	0.00	702.6	814.62	61.497	2	934	0.01050	0.00	0.00	0	134	0	5.50	0.00
1 30K	21.2	4.82	723.8	798.64	62.546	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1 31K	0.0	0.00	723.8	798.64	62.429	2	853	0.01320	0.00	0.00	0	134	0	5.40	0.00
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	20.05	971.7	3852.37	515.150	0	0	0.00000	0.00	0.00	0	134	21	6.60	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 35M	0.0	0.00	971.7	3852.37	515.040	2	1319	0.02170	0.00	0.00	0	134	0	6.60	0.00
1 36M	29.5	18.35	1001.2	3787.72	516.975	0	0	0.00000	0.00	0.00	0	134	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3787.72	516.918	2	1114	0.01940	0.00	0.00	0	134	0	6.40	0.00
1 38M	27.9	16.24	1029.1	3677.02	518.673	0	0	0.00000	0.00	0.00	0	134	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3677.02	518.636	2	1014	0.01810	0.00	0.00	0	134	0	6.20	0.00
1 40M	39.2	13.35	1068.3	3570.70	520.925	0	0	0.00000	0.00	0.00	0	134	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3570.70	520.868	2	1409	0.01550	0.00	0.00	0	134	0	6.10	0.00
1 42N	509.8	1062.00	509.8	1062.00	59.763	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	509.8	1062.00	59.834	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	49.50	549.3	1092.01	62.646	0	0	0.00000	0.00	0.00	0	134	10	6.60	0.01
1 45N	0.0	0.00	549.3	1092.01	62.648	2	684	0.05170	0.00	0.00	0	134	0	6.60	0.00
1 46N	38.9	40.76	588.2	1124.07	65.344	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1 47N	0.0	0.00	588.2	1124.07	65.337	2	702	0.02820	0.00	0.00	0	134	0	6.50	0.00
1 48N	37.9	31.26	626.1	1147.48	67.875	0	0	0.00000	0.00	0.00	0	134	15	6.40	0.01
1 49N	0.0	0.00	626.1	1147.48	67.853	2	938	0.02310	0.00	0.00	0	134	0	6.40	0.00
1 50N	32.3	11.57	658.4	1151.23	69.783	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 51N	0.0	0.00	658.4	1151.23	69.681	2	1933	0.00920	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52M  TM 1160 QM  3468.39 QMN  4140.34 QN   671.95       1   52N  TN 1165 QN  1065.14 QN2134646784.00 Q‰M  1970.63 Q      1.#R
*                                          1   52MN TMN 1161 QMN  4208.08 QM  3403.92 QN   804.15
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	658.4	1065.14	1726.7	4208.08	590.447	2	885	0.02080	0.00	0.00	0	134	0	6.20	0.00
1 53M	18.1	5.24	1744.8	4155.00	591.433	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01
1 54M	0.0	0.00	1744.8	4155.00	591.167	2	1259	0.00920	0.00	0.00	0	134	0	5.80	0.00
1 55O	35.7	12.79	35.7	12.79	2.133	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 56O	0.0	0.00	35.7	12.79	2.133	2	2369	0.01220	0.00	0.00	0	134	0	6.20	0.00
1 57B	40.0	25.81	118.8	32.99	4.846	0	0	0.00000	0.00	0.00	0	134	18	6.20	0.01
1 58O	0.0	0.00	35.7	9.59	2.123	2	1288	0.01250	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   59M  TM 1164 QM  4038.97 QMO  4041.48 QO     2.51       1   59O  TO 1191 QO     8.90 QO     0.00 Q²M   664.94 Q      1.#R
*                                          1   59MO TMO 1164 QMO  4041.48 QM  4038.97 QO     2.51
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	8.90	1780.5	4041.48	592.935	2	934	0.01150	0.00	0.00	0	134	0	6.20	0.00
1 60M	21.5	5.54	1802.0	3993.24	594.052	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 61M	0.0	0.00	1802.0	3993.24	593.587	2	1075	0.01320	0.00	0.00	0	134	0	5.60	0.00
1 62M	0.0	0.00	1802.0	3905.35	593.586	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   63K  TK 1176 QK   785.72 QKM  2842.47 QM  2056.75       1   63M  TM 1166 QM  3904.29 QM-
28641682232155024000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000.00 Q□K   199.27 Q      1.#R
*                                        1   63KM TKM 1167 QKM  4118.69 QK   216.68 QM  3902.01
*****************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	63KM	1802.0	3904.29	2525.8	4118.69	656.012	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00
1	64K	31.4	8.99	2557.2	4125.64	657.629	0	0	0.00000	0.00	0.00	0	134	27	5.50	0.01
1	65K	0.0	0.00	2557.2	4125.64	657.128	2	784	0.01050	0.00	0.00	0	134	0	5.50	0.00
1	66K	37.2	5.58	2594.4	4096.12	658.911	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	67K	0.0	0.00	2594.4	4096.12	658.373	2	770	0.01080	0.00	0.00	0	124	0	5.40	0.00
1	68K	34.7	5.01	2629.1	4062.93	659.975	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	69K	0.0	0.00	2629.1	4062.93	659.144	2	992	0.01000	0.00	0.00	0	124	0	5.20	0.00
1	70K	19.1	2.65	2648.2	3997.06	659.992	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	71K	0.0	0.00	2648.2	3997.06	658.970	2	975	0.00800	0.00	0.00	0	124	0	5.00	0.00
1	72K	10.9	1.48	2659.1	3952.97	659.444	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1	73K	0.0	0.00	2659.1	3952.97	658.562	2	715	0.00700	0.00	0.00	0	124	0	4.90	0.00
1	74K	24.2	3.22	2683.3	3915.29	659.593	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	75K	0.0	0.00	2683.3	3915.29	658.428	2	1168	0.01280	0.00	0.00	0	124	0	4.80	0.00
1	76P	82.8	265.02	82.8	265.02	9.785	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1	77P	0.0	0.00	82.8	265.02	9.782	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	78P	26.5	7.36	109.3	265.93	11.391	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1	79P	0.0	0.00	109.3	265.93	11.386	2	1220	0.00870	0.00	0.00	0	124	0	6.60	0.00
1	80P	39.7	15.68	149.0	233.97	13.868	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	81P	0.0	0.00	149.0	233.97	13.838	2	2419	0.01850	0.00	0.00	0	134	0	6.40	0.00
1	82Q	40.0	22.18	40.0	22.18	2.688	0	0	0.00000	0.00	0.00	0	134	24	6.60	0.01
1	83Q	0.0	0.00	40.0	22.18	2.688	2	1582	0.02720	0.00	0.00	0	134	0	6.60	0.00
1	84Q	40.0	15.80	80.0	34.05	5.188	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	85Q	0.0	0.00	80.0	34.05	5.185	2	1847	0.02110	0.00	0.00	0	134	0	6.40	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   86P  TP 1166 QP   185.84 QPQ   209.63 QQ    23.79       1   86Q  TQ 1174 QQ    31.43 QQ    -0.00 QÒP   111.72 Q      1.#R
*                                        1   86PQ TPQ 1166 QPQ   209.63 QP   185.84 QQ    23.79
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	86PQ	80.0	31.43	229.0	209.63	18.998	2	949	0.02000	0.00	0.00	0	134	0	6.40	0.00
1	87P	40.0	29.16	269.0	208.95	21.654	0	0	0.00000	0.00	0.00	0	134	17	6.40	0.01
1	88P	0.0	0.00	269.0	208.95	21.612	2	856	0.01150	0.00	0.00	0	134	0	6.40	0.00
1	89P	40.0	14.32	309.0	210.18	23.878	0	0	0.00000	0.00	0.00	0	134	27	5.90	0.01
1	90P	0.0	0.00	309.0	210.18	23.815	2	1066	0.01300	0.00	0.00	0	134	0	5.90	0.00
1	91P	40.0	11.59	349.0	207.48	25.994	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 92P	0.0	0.00	349.0	207.48	25.890	2	1323	0.01000	0.00	0.00	0	134	0	5.80	0.00
1 93P	38.5	9.92	387.5	199.46	27.890	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 94P	0.0	0.00	387.5	199.46	27.781	2	1231	0.00980	0.00	0.00	0	134	0	5.60	0.00
1 95P	32.9	5.14	420.4	192.38	29.388	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 96P	0.0	0.00	420.4	192.38	29.101	2	853	0.00100	0.00	0.00	0	124	0	5.50	0.00
1 97P	32.3	4.75	452.7	169.94	30.621	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 98P	0.0	0.00	452.7	169.94	30.505	2	903	0.00830	0.00	0.00	0	124	0	5.30	0.00
1 99P	36.0	5.10	488.7	168.68	32.135	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01
1 100P	0.0	0.00	488.7	168.68	31.965	2	1173	0.00770	0.00	0.00	0	124	0	5.10	0.00
1 101P	22.9	3.18	511.6	164.81	32.982	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 102P	0.0	0.00	511.6	164.81	32.881	2	832	0.01210	0.00	0.00	0	124	0	5.00	0.00
1 103P	12.6	1.68	524.2	163.76	33.418	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 104P	0.0	0.00	524.2	163.76	33.292	2	949	0.01050	0.00	0.00	0	124	0	4.80	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1175 QK 3872.15 QKP 3908.59 QP 36.45 1 105P TP 1216 QP 161.78
QP11762611383907087000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000.00 Q•K 724.92 Q 1.#R
* 1 105KP TKP 1175 QKP 3908.59 QK 3872.15 QP 36.45
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	524.2	161.78	3207.5	3908.59	691.715	2	5	0.01000	0.00	0.00	0	124	0	4.80	0.00
1 106K	32.1	4.19	3239.6	3911.54	693.054	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1 107K	0.0	0.00	3239.6	3911.54	691.966	2	913	0.01100	0.00	0.00	0	124	0	4.70	0.00
1 108K	37.7	4.81	3277.3	3884.49	693.506	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 109K	0.0	0.00	3277.3	3884.49	692.083	2	1081	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 110K	39.4	4.81	3316.7	3838.95	693.622	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 111K	0.0	0.00	3316.7	3838.95	692.332	2	1044	0.01240	0.00	0.00	0	124	0	4.40	0.00
1 112K	39.8	4.64	3356.5	3820.46	693.816	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 113K	0.0	0.00	3356.5	3820.46	692.320	2	1121	0.01110	0.00	0.00	0	124	0	4.20	0.00
1 114K	40.0	4.44	3396.5	3784.19	693.740	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 115K	0.0	0.00	3396.5	3784.19	692.332	2	960	0.00950	0.00	0.00	0	124	0	4.00	0.00
1 116K	39.8	4.20	3436.3	3750.51	693.675	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 117K	0.0	0.00	3436.3	3750.51	692.342	2	919	0.00990	0.00	0.00	0	124	0	3.80	0.00
1 118K	39.8	3.98	3476.1	3730.91	693.614	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 119K	0.0	0.00	3476.1	3730.91	692.774	2	835	0.01980	0.00	0.00	0	134	0	3.60	0.00
1 120K	22.4	2.18	3498.5	3715.65	693.470	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 121K	0.0	0.00	3498.5	3715.65	691.806	2	1042	0.00770	0.00	0.00	0	134	0	3.50	0.00
1 122R	21.6	4.91	21.6	4.91	1.069	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1 123R	0.0	0.00	21.6	4.91	1.068	2	1940	0.01230	0.00	0.00	0	134	0	5.40	0.00
1 124R	32.5	6.91	54.1	8.48	2.638	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 125R	0.0	0.00	54.1	8.48	2.636	2	1189	0.01320	0.00	0.00	0	134	0	5.30	0.00
1 126R	23.9	4.74	78.0	11.43	3.762	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 127R	0.0	0.00	78.0	11.43	3.758	2	803	0.01280	0.00	0.00	0	134	0	5.20	0.00
1 128R	28.8	6.13	106.8	15.28	5.149	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 129R	0.0	0.00	106.8	15.28	5.137	2	966	0.01040	0.00	0.00	0	134	0	5.30	0.00
1 130R	29.3	5.02	136.1	18.15	6.452	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 131R	0.0	0.00	136.1	18.15	6.437	2	795	0.00960	0.00	0.00	0	134	0	5.00	0.00
1 132R	27.5	4.35	163.6	20.48	7.641	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1 133R	0.0	0.00	163.6	20.48	7.623	2	759	0.01050	0.00	0.00	0	134	0	4.90	0.00
1 134R	27.3	3.97	190.9	22.37	8.790	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1 135R	0.0	0.00	190.9	22.37	8.768	2	740	0.00980	0.00	0.00	0	134	0	4.80	0.00
1 136R	29.4	3.92	220.3	24.00	9.995	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1 137R	0.0	0.00	220.3	24.00	9.964	2	849	0.01000	0.00	0.00	0	134	0	4.70	0.00
1 138R	36.9	4.71	257.2	25.75	11.471	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1 139R	0.0	0.00	257.2	25.75	11.430	2	960	0.01020	0.00	0.00	0	134	0	4.60	0.00
1 140R	27.6	3.37	284.8	26.55	12.508	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1 141R	0.0	0.00	284.8	26.55	12.477	2	705	0.01250	0.00	0.00	0	134	0	4.40	0.00
1 142R	36.0	4.20	320.8	28.26	13.819	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1 143R	0.0	0.00	320.8	28.26	13.766	2	966	0.01040	0.00	0.00	0	134	0	4.20	0.00
1 144R	39.6	4.29	360.4	29.65	15.138	0	0	0.00000	0.00	0.00	0	134	30	3.90	0.01
1 145R	0.0	0.00	360.4	29.65	15.067	2	1078	0.00940	0.00	0.00	0	134	0	3.90	0.00
1 146R	27.4	2.74	387.8	30.04	15.942	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 147R	0.0	0.00	387.8	30.04	15.902	2	693	0.01440	0.00	0.00	0	134	0	3.60	0.00
1 148R	27.6	2.76	415.4	30.80	16.784	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 149R	0.0	0.00	415.4	30.80	16.685	2	1266	0.00970	0.00	0.00	0	134	0	3.60	0.00
1 150R	20.7	2.01	436.1	31.18	17.328	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 151R	0.0	0.00	436.1	31.18	17.205	2	1379	0.00960	0.00	0.00	0	134	0	3.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1188 QK  3678.82 QKR  3707.10 QR    28.28       1  152R  TR 1210 QR    31.05 QR     0.00 QòK  1687.19 Q      1.#R
*                                   1  152KR TKR 1188 QKR  3707.10 QK  3678.82 QR    28.28
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	31.05	3934.6	3707.10	707.152	2	1212	0.00830	0.00	0.00	0	134	0	3.50	0.00
1 153K	38.8	3.66	3973.4	3667.08	708.323	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 154K	0.0	0.00	3973.4	3667.08	705.200	2	2066	0.00970	0.00	0.00	0	134	0	3.40	0.00
1 155K	27.3	2.50	4000.7	3560.39	706.000	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 156K	0.0	0.00	4000.7	3560.39	703.271	2	1710	0.00880	0.00	0.00	0	134	0	3.30	0.00
1 157K	22.1	1.96	4022.8	3494.31	703.898	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 158K	0.0	0.00	4022.8	3494.31	701.137	2	1697	0.00870	0.00	0.00	0	134	0	3.20	0.00
1 159S	39.3	3.60	39.3	3.60	1.151	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 160S	0.0	0.00	39.3	3.60	1.149	2	2302	0.01100	0.00	0.00	0	134	0	3.30	0.00
1 161S	36.7	3.26	76.0	5.34	2.192	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 162S	0.0	0.00	76.0	5.34	2.180	2	2012	0.01210	0.00	0.00	0	134	0	3.20	0.00
1 163T	16.1	1.52	16.1	1.52	0.486	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 164T	0.0	0.00	16.1	1.52	0.484	2	1839	0.00880	0.00	0.00	0	134	0	3.40	0.00
1 165T	28.5	2.69	44.6	3.37	1.345	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 166T	0.0	0.00	44.6	3.37	1.344	2	887	0.01190	0.00	0.00	0	134	0	3.40	0.00
1 167T	38.0	3.38	82.6	6.35	2.423	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 168T	0.0	0.00	82.6	6.35	2.421	2	1078	0.00880	0.00	0.00	0	134	0	3.20	0.00
1 169T	39.8	3.54	122.4	8.92	3.552	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 170T	0.0	0.00	122.4	8.92	3.540	2	1337	0.01200	0.00	0.00	0	134	0	3.20	0.00
1 171T	29.2	2.59	151.6	10.23	4.369	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 172T	0.0	0.00	151.6	10.23	4.335	2	1813	0.00980	0.00	0.00	0	134	0	3.20	0.00
1 173KS	76.0	4.98	4098.8	3437.25	703.317	0	0	0.00000	0.00	0.00	0	134	0	3.20	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  174K  TK 1200 QK  3437.25 QKT  3446.60 QT     9.35       1  174T  TT 1193 QT     9.57 QT    -0.00 QÁK  1781.87 Q      1.#R
*                                      1  174KT TKT 1200 QKT  3446.60 QK  3437.25 QT     9.35
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	9.57	4250.4	3446.60	705.889	2	1115	0.00920	0.00	0.00	0	134	0	3.20	0.00
1 175K	28.5	2.53	4278.9	3427.43	706.699	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 176K	0.0	0.00	4278.9	3427.43	703.504	2	1834	0.00810	0.00	0.00	0	134	0	3.20	0.00
1 177U	29.4	2.61	29.4	2.61	0.835	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 178U	29.1	2.58	58.5	5.20	1.662	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 179U	0.0	0.00	58.5	5.20	1.649	2	3079	0.00820	0.00	0.00	0	134	0	3.20	0.00
1 180U	31.8	2.82	90.3	5.27	2.553	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 181U	0.0	0.00	90.3	5.27	2.526	2	2207	0.01120	0.00	0.00	0	134	0	3.20	0.00
1 182U	21.3	1.89	111.6	5.67	3.132	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 183U	0.0	0.00	111.6	5.67	3.079	2	2448	0.00810	0.00	0.00	0	134	0	3.20	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  184K  TK 1206 QK  3357.69 QKU  3362.84 QU     5.15       1  184U  TU 1217 QU     5.22 QU    -0.00 Q□K  2582.06 Q      1.#R
*                                      1  184KU TKU 1206 QKU  3362.84 QK  3357.69 QU     5.15
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	5.22	4390.5	3362.84	706.574	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinK-burn.lac Run date: Fri Sep 18 15:36:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1	4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1	5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1	6B	39.7	7.71	39.7	7.71	1.497	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1	7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1	9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1	10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1	11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1	12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1	13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1	14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1	15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1	16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1	17B	39.1	8.34	78.8	16.05	3.087	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1	19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1	20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1	21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1	22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL8914983370541808900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q      1.#R
*                                  1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1	24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1	25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1	26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1	27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1	28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00
1	30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1	31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                          *
* 1   52M  TM 1160 QM  3496.79 QMN  5161.65 QN  1664.86       1   52N  TN 1164 QN  2012.00 QN     0.00 QúM  2356.97 Q      1.#R
*                                   1   52MN TMN 1161 QMN  5281.20 QM  3429.58 QN  1851.61
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	50.24	6.766	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                          *
* 1   59M  TM 1164 QM  5084.19 QMO  5089.91 QO     5.72       1   59O  TO 1189 QO    16.56 QO    -0.00 QMM   796.60 Q      1.#R
*                                   1   59MO TMO 1164 QMO  5089.91 QM  5084.19 QO     5.72
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

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* CONFLUENCE Q'S *

* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857793363967650000000000000000000000000000000.00 QpK 369.02 Q 1.#R
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

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* CONFLUENCE Q'S *

* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620894791893312.00 QMP 217.81 Q
1.#R
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

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****************************************************************************************************
*                                          CONFLUENCE Q'S                                          *
* 1  105K  TK 1175 QK  5134.47 QKP  5220.22 QP    85.76      1  105P  TP 1200 QP   420.09
QP2980879108241845200000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000.00 Q□K  1446.68 Q      1.#R
*                               1  105KP TKP 1175 QKP  5220.22 QK  5134.47 QP    85.76
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	7.76	4118.6	5085.85	808.077	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 117K	0.0	0.00	4118.6	5085.85	806.660	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	9.28	4158.4	5054.55	808.401	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 119K	0.0	0.00	4158.4	5054.55	807.513	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	5.00	4180.8	5040.81	808.458	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1 121K	0.0	0.00	4180.8	5040.81	806.629	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	6.44	415.4	77.46	24.694	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 149R	0.0	0.00	415.4	77.46	24.582	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	4.62	436.1	77.72	25.456	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1 151R	0.0	0.00	436.1	77.72	25.318	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

```
*****************************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                         *
* 1  152K  TK 1186 QK  5002.01 QKR  5068.80 QR    66.80       1  152R  TR 1203 QR    77.23 QR     0.00 Q~K  2682.52 Q      1.#R
*                                        1  152KR TKR 1186 QKR  5068.80 QK  5002.01 QR    66.80
*****************************************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	77.23	4616.9	5068.80	829.911	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	8.28	4655.7	5024.87	831.489	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 154K	0.0	0.00	4655.7	5024.87	828.178	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	5.56	4683.0	4903.68	829.248	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 156K	0.0	0.00	4683.0	4903.68	826.388	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	4.29	4705.1	4829.50	827.222	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 158K	0.0	0.00	4705.1	4829.50	824.316	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.537	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 161S	36.7	7.13	76.0	11.36	2.921	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.36	2.908	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.43	0.654	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.813	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.812	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.65	3.245	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.65	3.242	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.07	4.742	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.07	4.730	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.81	5.831	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.81	5.793	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.52	4781.1	4765.76	827.224	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  174K  TK 1197 QK  4765.76 QKT  4784.98 QT    19.22       1  174T  TT 1189 QT    20.39 QT     0.00 QµK  2024.04 Q      1.#R
*                                      1  174KT TKT 1197 QKT  4784.98 QK  4765.76 QT    19.22
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.39	4932.7	4784.98	831.085	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4753.75	832.159	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4753.75	828.747	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.36	2.191	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	6.17	90.3	10.84	3.390	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 181U	0.0	0.00	90.3	10.84	3.361	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.14	111.6	10.94	4.164	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 183U	0.0	0.00	111.6	10.94	4.106	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  184K  TK 1202 QK  4669.22 QKU  4679.16 QU     9.94       1  184U  TU 1214 QU    10.20 QU     0.00 Q7K  3354.91 Q      1.#R
*                                      1  184KU TKU 1202 QKU  4679.16 QK  4669.22 QU     9.94
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	10.20	5072.8	4679.16	832.845	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinK-burn.lac   Run date: Fri Sep 18 15:36:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1	4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1	5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1	6B	39.7	7.71	39.7	7.71	1.497	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1	7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1	9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1	10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1	11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1	12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1	13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1	14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1	15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1	16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1	17B	39.1	8.34	78.8	16.05	3.087	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1	19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1	20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1	21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1	22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

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*************************************************************************************************************************
*                                                        CONFLUENCE Q'S                                                 *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL8914983370541808900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q      1.#R
*                                             1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
*************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1	24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1	25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1	26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1	27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1	28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00
1	30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1	31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                          *
* 1   52M  TM 1160 QM  3496.79 QMN  5161.65 QN  1664.86       1   52N  TN 1164 QN  2012.00 QN     0.00 QúM  2356.97 Q      1.#R
*                                   1   52MN TMN 1161 QMN  5281.20 QM  3429.58 QN  1851.61
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	50.24	6.766	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                          *
* 1   59M  TM 1164 QM  5084.19 QMO  5089.91 QO     5.72       1   59O  TO 1189 QO    16.56 QO    -0.00 QMM   796.60 Q      1.#R
*                                   1   59MO TMO 1164 QMO  5089.91 QM  5084.19 QO     5.72
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857793363967650000000000000000000000000000000.00 QpK 369.02 Q 1.#R
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620894791893312.00 QMP 217.81 Q
1.#R
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

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*****************************************************************************************************************************
*                                                         CONFLUENCE Q'S                                                    *
* 1  105K  TK 1175 QK  5134.47 QKP  5220.22 QP    85.76      1  105P  TP 1200 QP   420.09
QP298087910824184520000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000.00 Q□K  1446.68 Q      1.#R
*                                         1  105KP TKP 1175 QKP  5220.22 QK  5134.47 QP    85.76
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	7.76	4118.6	5085.85	808.077	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 117K	0.0	0.00	4118.6	5085.85	806.660	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	9.28	4158.4	5054.55	808.401	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 119K	0.0	0.00	4158.4	5054.55	807.513	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	5.00	4180.8	5040.81	808.458	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1 121K	0.0	0.00	4180.8	5040.81	806.629	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	6.44	415.4	77.46	24.694	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 149R	0.0	0.00	415.4	77.46	24.582	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	4.62	436.1	77.72	25.456	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1 151R	0.0	0.00	436.1	77.72	25.318	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

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*****************************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                         *
* 1  152K  TK 1186 QK  5002.01 QKR  5068.80 QR    66.80       1  152R  TR 1203 QR    77.23 QR     0.00 Q~K  2682.52 Q      1.#R
*                                          1  152KR TKR 1186 QKR  5068.80 QK  5002.01 QR    66.80
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	77.23	4616.9	5068.80	829.911	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	8.28	4655.7	5024.87	831.489	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 154K	0.0	0.00	4655.7	5024.87	828.178	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	5.56	4683.0	4903.68	829.248	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 156K	0.0	0.00	4683.0	4903.68	826.388	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	4.29	4705.1	4829.50	827.222	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 158K	0.0	0.00	4705.1	4829.50	824.316	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.537	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 161S	36.7	7.13	76.0	11.36	2.921	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.36	2.908	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.43	0.654	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.813	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.812	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.65	3.245	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.65	3.242	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.07	4.742	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.07	4.730	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.81	5.831	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.81	5.793	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.52	4781.1	4765.76	827.224	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  174K  TK 1197 QK  4765.76 QKT  4784.98 QT    19.22       1  174T  TT 1189 QT    20.39 QT     0.00 QµK  2024.04 Q      1.#R
*                                      1  174KT TKT 1197 QKT  4784.98 QK  4765.76 QT    19.22
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.39	4932.7	4784.98	831.085	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4753.75	832.159	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4753.75	828.747	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.36	2.191	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	6.17	90.3	10.84	3.390	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 181U	0.0	0.00	90.3	10.84	3.361	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.14	111.6	10.94	4.164	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 183U	0.0	0.00	111.6	10.94	4.106	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  184K  TK 1202 QK  4669.22 QKU  4679.16 QU     9.94       1  184U  TU 1214 QU    10.20 QU     0.00 Q7K  3354.91 Q      1.#R
*                                      1  184KU TKU 1202 QKU  4679.16 QK  4669.22 QU     9.94
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	10.20	5072.8	4679.16	832.845	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 4679.16 x 1.025 = 4796.14 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinV.lac Run date: Fri Sep 18 17:12:15 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	2.11	23.8	2.11	0.676	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	2V	0.0	0.00	23.8	2.11	0.675	2	1412	0.01030	0.00	0.00	0	134	0	3.20	0.00
1	3V	39.4	3.50	63.2	4.87	1.794	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	4V	0.0	0.00	63.2	4.87	1.793	2	1046	0.01150	0.00	0.00	0	134	0	3.20	0.00
1	5V	39.9	3.54	103.1	7.68	2.927	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	6V	0.0	0.00	103.1	7.68	2.925	2	892	0.01000	0.00	0.00	0	134	0	3.20	0.00
1	7V	40.0	3.55	143.1	10.35	4.061	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	8V	0.0	0.00	143.1	10.35	4.052	2	964	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinV-burn.lac Run date: Fri Sep 18 17:13:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	4.62	23.8	4.62	0.897	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2V	0.0	0.00	23.8	4.62	0.896	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	7.65	63.2	10.41	2.382	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	4V	0.0	0.00	63.2	10.41	2.380	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	7.75	103.1	16.32	3.885	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	6V	0.0	0.00	103.1	16.32	3.882	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	7.77	143.1	21.95	5.390	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	8V	0.0	0.00	143.1	21.95	5.380	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinV-burn.lac Run date: Fri Sep 18 17:13:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	4.62	23.8	4.62	0.897	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2V	0.0	0.00	23.8	4.62	0.896	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	7.65	63.2	10.41	2.382	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	4V	0.0	0.00	63.2	10.41	2.380	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	7.75	103.1	16.32	3.885	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	6V	0.0	0.00	103.1	16.32	3.882	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	7.77	143.1	21.95	5.390	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	8V	0.0	0.00	143.1	21.95	5.380	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 21.95 x 1.025 = 22.50 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinW.lac Run date: Mon Sep 21 16:45:16 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1W	24.1	3.48	24.1	3.48	1.113	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1 2B	27.6	2.45	27.6	2.45	0.784	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 2W	0.0	0.00	24.1	3.48	1.111	2	1848	0.01050	0.00	0.00	0	134	0	3.20	0.00
1 3W	22.3	3.10	46.4	5.40	2.101	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 4B	15.1	1.43	42.7	3.88	1.240	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 4W	0.0	0.00	46.4	5.40	2.098	2	1007	0.01070	0.00	0.00	0	134	0	3.40	0.00
1 5W	26.9	3.58	73.3	7.97	3.245	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 6W	0.0	0.00	73.3	7.97	3.236	2	1111	0.00990	0.00	0.00	0	124	0	4.80	0.00
1 7W	24.7	3.15	98.0	10.06	4.244	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 8W	0.0	0.00	98.0	10.06	4.224	2	1118	0.00710	0.00	0.00	0	124	0	4.60	0.00
1 9W	35.1	4.29	133.1	12.33	5.595	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 10W	0.0	0.00	133.1	12.33	5.566	2	1301	0.01000	0.00	0.00	0	124	0	4.40	0.00
1 11W	24.8	2.96	157.9	13.46	6.513	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.01
1 12W	0.0	0.00	157.9	13.46	6.488	2	779	0.00750	0.00	0.00	0	124	0	4.30	0.00
1 13W	36.2	4.22	194.1	15.74	7.838	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 14W	0.0	0.00	194.1	15.74	7.813	2	915	0.01440	0.00	0.00	0	124	0	4.20	0.00
1 15W	33.0	3.66	227.1	17.99	8.985	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 16W	0.0	0.00	227.1	17.99	8.960	2	796	0.01390	0.00	0.00	0	124	0	4.00	0.00
1 17W	39.5	4.17	266.6	20.75	10.293	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 18W	0.0	0.00	266.6	20.75	10.258	2	930	0.01200	0.00	0.00	0	124	0	3.80	0.00
1 19W	32.8	3.28	299.4	22.71	11.306	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 20W	0.0	0.00	299.4	22.71	11.269	2	774	0.00940	0.00	0.00	0	124	0	3.60	0.00
1 21W	35.4	3.54	334.8	24.64	12.401	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 22W	0.0	0.00	334.8	24.64	12.337	2	1066	0.00820	0.00	0.00	0	124	0	3.60	0.00
1 23W	19.1	1.86	353.9	24.80	12.931	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 24W	0.0	0.00	353.9	24.80	12.863	2	860	0.00630	0.00	0.00	0	134	0	3.50	0.00
1 25W	11.4	1.11	365.3	24.84	13.217	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 26W	0.0	0.00	365.3	24.84	13.160	2	684	0.00730	0.00	0.00	0	134	0	3.50	0.00
1 27W	22.7	2.14	388.0	25.26	13.845	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 28W	0.0	0.00	388.0	25.26	13.695	2	1949	0.01030	0.00	0.00	0	134	0	3.40	0.00
1 29X	7.3	0.73	7.3	0.73	0.233	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 30X	0.0	0.00	7.3	0.73	0.139	2	1088	0.00760	0.00	0.00	0	124	0	3.60	0.00
1 31X	23.1	2.24	30.4	2.63	0.856	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 32X	0.0	0.00	30.4	2.63	0.855	2	882	0.01350	0.00	0.00	0	124	0	3.50	0.00
1 33X	13.0	1.23	43.4	3.64	1.248	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 34X	0.0	0.00	43.4	3.64	1.247	2	429	0.01290	0.00	0.00	0	124	0	3.40	0.00
1 35X	18.5	1.75	61.9	5.14	1.805	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 36X	0.0	0.00	61.9	5.14	1.805	2	1115	0.01280	0.00	0.00	0	124	0	3.40	0.00
1 37WX	61.9	4.98	449.9	27.38	15.445	2	642	0.00980	0.00	0.00	0	124	0	3.40	0.00
1 38W	19.2	1.76	469.1	27.70	16.007	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1 39W	0.0	0.00	469.1	27.70	15.873	2	1430	0.00960	0.00	0.00	0	124	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	40Y	6.4	0.64	6.4	0.64	0.205	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	41Y	0.0	0.00	6.4	0.64	0.105	2	970	0.00890	0.00	0.00	0	124	0	3.60	0.00
1	42Y	11.2	1.12	17.6	1.55	0.463	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	43Y	0.0	0.00	17.6	1.55	0.449	2	831	0.01140	0.00	0.00	0	124	0	3.60	0.00
1	44Y	15.6	1.52	33.2	2.78	0.934	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	45Y	0.0	0.00	33.2	2.78	0.932	2	883	0.01070	0.00	0.00	0	124	0	3.50	0.00
1	46Y	9.5	0.90	42.7	3.38	1.219	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	47Y	0.0	0.00	42.7	3.38	1.218	2	390	0.01680	0.00	0.00	0	124	0	3.40	0.00
1	48Y	13.1	1.20	55.8	4.31	1.602	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1	49Y	0.0	0.00	55.8	4.31	1.601	2	658	0.01670	0.00	0.00	0	124	0	3.30	0.00
1	50Y	24.4	2.24	80.2	6.03	2.316	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.01
1	51Y	0.0	0.00	80.2	6.03	2.314	2	1416	0.01050	0.00	0.00	0	124	0	3.30	0.00
1	52WY	80.2	5.78	549.3	30.87	17.993	2	1623	0.00800	0.00	0.00	0	124	0	3.30	0.00
1	53Z	12.8	1.42	12.8	1.42	0.455	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1	54Z	0.0	0.00	12.8	1.42	0.453	2	1273	0.01320	0.00	0.00	0	124	0	4.00	0.00
1	55Z	24.9	2.70	37.7	3.68	1.315	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1	56Z	0.0	0.00	37.7	3.68	1.314	2	1086	0.01170	0.00	0.00	0	124	0	3.90	0.00
1	57Z	25.8	2.65	63.5	5.72	2.162	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.01
1	58Z	0.0	0.00	63.5	5.72	2.161	2	863	0.01350	0.00	0.00	0	124	0	3.70	0.00
1	59Z	30.1	3.01	93.6	8.05	3.123	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	60Z	0.0	0.00	93.6	8.05	3.120	2	922	0.01230	0.00	0.00	0	124	0	3.60	0.00
1	61Z	28.0	2.72	121.6	9.94	3.990	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	62Z	0.0	0.00	121.6	9.94	3.980	2	907	0.01020	0.00	0.00	0	124	0	3.50	0.00
1	63Z	32.7	3.18	154.3	11.90	4.996	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	64Z	0.0	0.00	154.3	11.90	4.980	2	1048	0.01130	0.00	0.00	0	124	0	3.50	0.00
1	65Z	25.7	2.43	180.0	13.00	5.755	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1	66Z	0.0	0.00	180.0	13.00	5.735	2	1003	0.01240	0.00	0.00	0	134	0	3.40	0.00
1	67Z	9.1	0.86	189.1	13.05	6.010	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1	68Z	0.0	0.00	189.1	13.05	6.000	2	399	0.01470	0.00	0.00	0	134	0	3.40	0.00
1	69Z	24.4	2.24	213.5	13.96	6.715	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1	70Z	0.0	0.00	213.5	13.96	6.686	2	1072	0.01280	0.00	0.00	0	134	0	3.30	0.00
1	71Z	27.0	2.40	240.5	14.56	7.453	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	72Z	0.0	0.00	240.5	14.56	7.401	2	1351	0.00920	0.00	0.00	0	134	0	3.20	0.00
1	73WZ	240.5	14.33	789.8	43.59	25.393	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinW-burn.lac Run date: Fri Sep 18 16:03:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.80	157.9	25.73	8.417	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.01
1	12W	0.0	0.00	157.9	25.73	8.390	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	8.18	194.1	29.17	10.089	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	14W	0.0	0.00	194.1	29.17	10.062	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	6.94	227.1	32.80	11.523	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1	16W	0.0	0.00	227.1	32.80	11.497	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	7.70	266.6	37.32	13.141	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	18W	0.0	0.00	266.6	37.32	13.104	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	5.91	299.4	40.49	14.385	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	20W	0.0	0.00	299.4	40.49	14.345	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	6.38	334.8	43.61	15.727	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	22W	0.0	0.00	334.8	43.61	15.659	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	4.26	353.9	43.84	16.465	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	24W	0.0	0.00	353.9	43.84	16.393	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	2.54	365.3	43.88	16.874	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	26W	0.0	0.00	365.3	43.88	16.815	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	4.84	388.0	44.44	17.738	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	28W	0.0	0.00	388.0	44.44	17.577	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	1.32	7.3	1.32	0.285	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	30X	0.0	0.00	7.3	1.32	0.200	2	1088	0.00760	0.00	0.00	0	332	0	3.60	0.00
1	31X	23.1	4.00	30.4	4.59	1.072	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	32X	0.0	0.00	30.4	4.59	1.071	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.16	43.4	6.33	1.546	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	34X	0.0	0.00	43.4	6.33	1.545	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	3.07	61.9	8.91	2.221	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	36X	0.0	0.00	61.9	8.91	2.220	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   37W  TW 1207 QW    43.53 QWX    47.52 QX     3.99       1   37X  TX 1180 QX     8.61 QX    -0.00 Q□W    31.14 Q      1.#R
*                                      1   37WX TWX 1203 QWX    47.79 QW    43.19 QX     4.60
*****************************************************************************************************************
```

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	8.61	449.9	47.79	19.739	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1	38W	19.2	3.05	469.1	48.16	20.415	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	39W	0.0	0.00	469.1	48.16	20.271	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1	40Y	6.4	1.15	6.4	1.15	0.250	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	41Y	0.0	0.00	6.4	1.15	0.156	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1	42Y	11.2	2.02	17.6	2.72	0.593	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	43Y	0.0	0.00	17.6	2.72	0.591	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1	44Y	15.6	2.70	33.2	4.85	1.181	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	45Y	0.0	0.00	33.2	4.85	1.179	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1	46Y	9.5	1.58	42.7	5.84	1.526	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	47Y	0.0	0.00	42.7	5.84	1.525	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1	48Y	13.1	2.08	55.8	7.38	1.987	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	49Y	0.0	0.00	55.8	7.38	1.986	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1	50Y	24.4	3.88	80.2	10.21	2.847	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	51Y	0.0	0.00	80.2	10.21	2.843	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52W  TW 1216 QW    47.79 QWY    52.92 QY     5.12       1   52Y  TY 1185 QY     9.78 QY-
162246851198159600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QáW    35.67 Q      1.#R
*                                      1   52WY TWY 1212 QWY    53.22 QW    47.57 QY     5.65
*****************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	9.78	549.3	53.22	22.906	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1	53Z	12.8	2.69	12.8	2.69	0.567	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1	54Z	0.0	0.00	12.8	2.69	0.565	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1	55Z	24.9	5.04	37.7	6.78	1.634	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	56Z	0.0	0.00	37.7	6.78	1.634	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1	57Z	25.8	4.84	63.5	10.37	2.675	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.01
1	58Z	0.0	0.00	63.5	10.37	2.674	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1	59Z	30.1	5.43	93.6	14.37	3.849	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	60Z	0.0	0.00	93.6	14.37	3.845	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1	61Z	28.0	4.85	121.6	17.57	4.903	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	62Z	0.0	0.00	121.6	17.57	4.892	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1	63Z	32.7	5.66	154.3	20.79	6.127	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	64Z	0.0	0.00	154.3	20.79	6.110	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00
1	65Z	25.7	5.48	180.0	23.13	7.155	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 66Z	0.0	0.00	180.0	23.13	7.134	2	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00
1 67Z	9.1	1.94	189.1	23.36	7.504	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 68Z	0.0	0.00	189.1	23.36	7.494	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00
1 69Z	24.4	4.97	213.5	25.49	8.450	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 70Z	0.0	0.00	213.5	25.49	8.419	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00
1 71Z	27.0	5.24	240.5	27.11	9.437	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 72Z	0.0	0.00	240.5	27.11	9.382	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00

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*************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                     *
* 1   73W  TW 1222 QW    52.82 QWZ    72.91 QZ    20.09       1   73Z  TZ 1190 QZ    26.27
QZ1146796025651069700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000.00 Q<W    40.43 Q      1.#R
*                                    1   73WZ TWZ 1212 QWZ    74.54 QW    51.54 QZ    23.01
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	26.27	789.8	74.54	32.287	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\BasinW-burn.lac Run date: Fri Sep 18 16:03:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.80	157.9	25.73	8.417	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.01
1	12W	0.0	0.00	157.9	25.73	8.390	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	8.18	194.1	29.17	10.089	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	14W	0.0	0.00	194.1	29.17	10.062	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	6.94	227.1	32.80	11.523	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1	16W	0.0	0.00	227.1	32.80	11.497	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	7.70	266.6	37.32	13.141	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	18W	0.0	0.00	266.6	37.32	13.104	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	5.91	299.4	40.49	14.385	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	20W	0.0	0.00	299.4	40.49	14.345	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	6.38	334.8	43.61	15.727	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	22W	0.0	0.00	334.8	43.61	15.659	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	4.26	353.9	43.84	16.465	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	24W	0.0	0.00	353.9	43.84	16.393	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	2.54	365.3	43.88	16.874	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.01
1	26W	0.0	0.00	365.3	43.88	16.815	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	4.84	388.0	44.44	17.738	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	28W	0.0	0.00	388.0	44.44	17.577	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	1.32	7.3	1.32	0.285	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	30X	0.0	0.00	7.3	1.32	0.200	2	1088	0.00760	0.00	0.00	0	332	0	3.60	0.00
1	31X	23.1	4.00	30.4	4.59	1.072	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	32X	0.0	0.00	30.4	4.59	1.071	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.16	43.4	6.33	1.546	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	34X	0.0	0.00	43.4	6.33	1.545	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	3.07	61.9	8.91	2.221	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	36X	0.0	0.00	61.9	8.91	2.220	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   37W  TW 1207 QW    43.53 QWX    47.52 QX     3.99       1   37X  TX 1180 QX     8.61 QX    -0.00 Q□W    31.14 Q      1.#R
*                                     1   37WX TWX 1203 QWX    47.79 QW    43.19 QX     4.60
*****************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	8.61	449.9	47.79	19.739	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1	38W	19.2	3.05	469.1	48.16	20.415	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	39W	0.0	0.00	469.1	48.16	20.271	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1	40Y	6.4	1.15	6.4	1.15	0.250	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	41Y	0.0	0.00	6.4	1.15	0.156	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1	42Y	11.2	2.02	17.6	2.72	0.593	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	43Y	0.0	0.00	17.6	2.72	0.591	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1	44Y	15.6	2.70	33.2	4.85	1.181	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	45Y	0.0	0.00	33.2	4.85	1.179	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1	46Y	9.5	1.58	42.7	5.84	1.526	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	47Y	0.0	0.00	42.7	5.84	1.525	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1	48Y	13.1	2.08	55.8	7.38	1.987	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	49Y	0.0	0.00	55.8	7.38	1.986	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1	50Y	24.4	3.88	80.2	10.21	2.847	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.01
1	51Y	0.0	0.00	80.2	10.21	2.843	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52W  TW 1216 QW    47.79 QWY    52.92 QY     5.12       1   52Y  TY 1185 QY     9.78 QY-
1622468511981596000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QáW    35.67 Q      1.#R
*                                     1   52WY TWY 1212 QWY    53.22 QW    47.57 QY     5.65
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	9.78	549.3	53.22	22.906	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1	53Z	12.8	2.69	12.8	2.69	0.567	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1	54Z	0.0	0.00	12.8	2.69	0.565	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1	55Z	24.9	5.04	37.7	6.78	1.634	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	56Z	0.0	0.00	37.7	6.78	1.634	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1	57Z	25.8	4.84	63.5	10.37	2.675	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.01
1	58Z	0.0	0.00	63.5	10.37	2.674	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1	59Z	30.1	5.43	93.6	14.37	3.849	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	60Z	0.0	0.00	93.6	14.37	3.845	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1	61Z	28.0	4.85	121.6	17.57	4.903	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	62Z	0.0	0.00	121.6	17.57	4.892	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1	63Z	32.7	5.66	154.3	20.79	6.127	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	64Z	0.0	0.00	154.3	20.79	6.110	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00
1	65Z	25.7	5.48	180.0	23.13	7.155	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 66Z	0.0	0.00	180.0	23.13	7.134	2	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00
1 67Z	9.1	1.94	189.1	23.36	7.504	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 68Z	0.0	0.00	189.1	23.36	7.494	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00
1 69Z	24.4	4.97	213.5	25.49	8.450	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 70Z	0.0	0.00	213.5	25.49	8.419	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00
1 71Z	27.0	5.24	240.5	27.11	9.437	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 72Z	0.0	0.00	240.5	27.11	9.382	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   73W  TW 1222 QW    52.82 QWZ    72.91 QZ    20.09       1   73Z  TZ 1190 QZ    26.27
QZ1146796025651069700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000.00 Q<W    40.43 Q      1.#R
*                                   1   73WZ TWZ 1212 QWZ    74.54 QW    51.54 QZ    23.01
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	26.27	789.8	74.54	32.287	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 74.54 x 1.025 = 76.40 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100A.lac Run date: Fri Sep 18 16:10:43 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.91	8.2	0.91	0.291	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 102A	0.0	0.00	8.2	0.91	0.222	2	1080	0.01170	0.00	0.00	0	124	0	4.00	0.00
1 103A	17.4	1.84	25.6	2.46	0.809	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 104A	0.0	0.00	25.6	2.46	0.808	2	846	0.01260	0.00	0.00	0	124	0	3.80	0.00
1 105A	18.4	1.89	44.0	4.03	1.412	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.01
1 106A	0.0	0.00	44.0	4.03	1.412	2	782	0.01420	0.00	0.00	0	124	0	3.70	0.00
1 107A	24.3	2.65	68.3	6.03	2.189	0	0	0.00000	0.00	0.00	0	124	25	3.60	0.01
1 108A	0.0	0.00	68.3	6.03	2.188	2	822	0.01180	0.00	0.00	0	124	0	3.60	0.00
1 109A	21.0	2.38	89.3	7.57	2.860	0	0	0.00000	0.00	0.00	0	124	23	3.60	0.01
1 110A	0.0	0.00	89.3	7.57	2.859	2	717	0.01020	0.00	0.00	0	124	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100A-burn.lac Run date: Fri Sep 18 16:15:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.72	8.2	1.72	0.363	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 102A	0.0	0.00	8.2	1.72	0.313	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	3.39	25.6	4.50	1.037	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 104A	0.0	0.00	25.6	4.50	1.036	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	3.45	44.0	7.26	1.778	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.01
1 106A	0.0	0.00	44.0	7.26	1.778	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	4.96	68.3	10.85	2.731	0	0	0.00000	0.00	0.00	0	332	25	3.60	0.01
1 108A	0.0	0.00	68.3	10.85	2.730	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	4.54	89.3	13.61	3.555	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.01
1 110A	0.0	0.00	89.3	13.61	3.554	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100A-burn.lac Run date: Fri Sep 18 16:15:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.72	8.2	1.72	0.363	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 102A	0.0	0.00	8.2	1.72	0.313	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	3.39	25.6	4.50	1.037	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 104A	0.0	0.00	25.6	4.50	1.036	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	3.45	44.0	7.26	1.778	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.01
1 106A	0.0	0.00	44.0	7.26	1.778	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	4.96	68.3	10.85	2.731	0	0	0.00000	0.00	0.00	0	332	25	3.60	0.01
1 108A	0.0	0.00	68.3	10.85	2.730	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	4.54	89.3	13.61	3.555	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.01
1 110A	0.0	0.00	89.3	13.61	3.554	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Qbb = 13.61 x 1.025 = 13.95 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100B.lac Run date: Wed Sep 23 11:48:53 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	4.98	30.0	4.98	1.495	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 14B	22.1	6.05	52.1	11.03	2.671	0	0	0.00000	0.00	0.00	0	134	30	5.70	0.01
1 20B	38.7	7.22	90.8	18.24	4.678	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 21B	11.2	3.42	102.0	21.66	5.291	0	0	0.00000	0.00	0.00	0	134	29	5.80	0.01
1 28B	24.5	10.21	126.5	31.86	6.779	0	0	0.00000	0.00	0.00	0	134	27	6.20	0.01
1 29B	7.6	1.75	134.1	33.61	7.206	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1 35B	15.5	4.11	149.6	37.72	8.129	0	0	0.00000	0.00	0.00	0	124	30	6.50	0.01
1 36B	29.0	8.05	178.6	45.78	9.889	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 100B	67.1	239.25	245.7	279.92	17.830	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	279.92	17.832	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	14.78	271.7	290.60	19.559	0	0	0.00000	0.00	0.00	0	124	18	6.80	0.01
1 103B	0.0	0.00	271.7	290.60	19.554	2	1058	0.04570	0.00	0.00	0	124	0	6.80	0.00
1 104B	24.8	6.89	296.5	284.99	21.059	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 105B	0.0	0.00	296.5	284.99	21.048	2	1470	0.02950	0.00	0.00	0	124	0	6.60	0.00
1 106B	18.1	5.05	314.6	258.82	22.113	0	0	0.00000	0.00	0.00	0	124	28	6.40	0.01
1 107B	0.0	0.00	314.6	258.82	22.104	2	959	0.01820	0.00	0.00	0	124	0	6.40	0.00
1 108C	722.0	1504.05	722.0	1504.05	84.639	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	722.0	1504.05	84.694	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	11.52	761.7	1497.79	87.150	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 111C	0.0	0.00	761.7	1497.79	87.133	2	1568	0.03970	0.00	0.00	0	124	0	6.70	0.00
1 112D	37.7	10.94	37.7	10.94	2.333	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 113D	0.0	0.00	37.7	10.94	2.333	2	2150	0.02780	0.00	0.00	0	124	0	6.70	0.00

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*****************************************************************************************************************
*                                                   CONFLUENCE Q'S                                              *
* 1  114C  TC 1159 QC  1481.83 QCD  1486.61 QD     4.78       1  114D  TD 1172 QD     9.52 QD   -34.60 QTC   287.37 Q      1.#R
*                                     1  114CD TCD 1159 QCD  1486.61 QC  1481.83 QD     4.78
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	9.52	799.4	1486.61	89.495	2	1532	0.02480	0.00	0.00	0	124	0	6.70	0.00
1 115C	12.0	3.71	811.4	1471.57	90.207	0	0	0.00000	0.00	0.00	0	124	26	6.40	0.01
1 116C	0.0	0.00	811.4	1471.57	90.153	2	949	0.01960	0.00	0.00	0	124	0	6.40	0.00

```
*****************************************************************************************************************
*                                                   CONFLUENCE Q'S                                              *
* 1  117B  TB 1162 QB   239.78 QBC  1697.05 QC  1457.28       1  117C  TC 1162 QC  1457.28 QC     0.00 Q6B   239.78 Q      1.#R
*                                     1  117BC TBC 1162 QBC  1697.05 QB   239.78 QC  1457.28
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	811.4	1457.28	1126.0	1697.05	112.193	2	1210	0.01230	0.00	0.00	0	124	0	6.40	0.00
1 118B	34.1	7.09	1160.1	1666.58	114.033	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1 119B	0.0	0.00	1160.1	1666.58	113.900	2	944	0.01350	0.00	0.00	0	124	0	6.00	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 120E	31.1	8.64	31.1	8.64	1.888	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 121E	0.0	0.00	31.1	8.64	1.888	2	2049	0.03100	0.00	0.00	0	124	0	6.60	0.00
1 122E	18.9	9.08	50.0	13.31	3.068	0	0	0.00000	0.00	0.00	0	124	19	6.50	0.01
1 123E	0.0	0.00	50.0	13.31	3.067	2	866	0.03040	0.00	0.00	0	124	0	6.50	0.00
1 124E	37.4	14.08	87.4	25.89	5.352	0	0	0.00000	0.00	0.00	0	134	30	6.30	0.01
1 125E	0.0	0.00	87.4	25.89	5.343	2	1753	0.01750	0.00	0.00	0	134	0	6.30	0.00
1 126E	21.3	12.60	108.7	28.56	6.661	0	0	0.00000	0.00	0.00	0	134	19	6.10	0.01
1 127E	0.0	0.00	108.7	28.56	6.649	2	919	0.01770	0.00	0.00	0	134	0	6.10	0.00
1 128E	16.6	9.02	125.3	31.53	7.649	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 129E	0.0	0.00	125.3	31.53	7.633	2	904	0.01440	0.00	0.00	0	134	0	6.00	0.00

```
***********************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                                 *
* 1  130B  TB 1166 QB  1648.56 QBE  1675.71 QE    27.15       1  130E  TE 1172 QE    30.74
QE958174546284801400000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□B  1286.03 Q      1.#R
*                                        1  130BE TBE 1166 QBE  1675.71 QB  1648.56 QE    27.15
***********************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	30.74	1285.4	1675.71	121.372	2	1100	0.01140	0.00	0.00	0	134	0	6.00	0.00
1 131F	13.6	13.30	13.6	13.30	0.938	0	0	0.00000	0.00	0.00	0	134	13	6.50	0.01
1 132F	0.0	0.00	13.6	13.30	0.939	2	906	0.03180	0.00	0.00	0	134	0	6.50	0.00
1 133F	26.6	15.77	40.2	27.02	2.676	0	0	0.00000	0.00	0.00	0	134	21	6.40	0.01
1 134F	0.0	0.00	40.2	27.02	2.676	2	1224	0.02140	0.00	0.00	0	134	0	6.40	0.00
1 135F	37.2	13.33	77.4	36.45	4.899	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 136F	0.0	0.00	77.4	36.45	4.894	2	1787	0.01630	0.00	0.00	0	134	0	6.20	0.00
1 137F	24.5	13.31	101.9	33.89	6.370	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 138F	0.0	0.00	101.9	33.89	6.362	2	979	0.01940	0.00	0.00	0	134	0	6.00	0.00
1 139F	14.3	8.32	116.2	34.19	7.213	0	0	0.00000	0.00	0.00	0	134	18	5.90	0.01
1 140F	0.0	0.00	116.2	34.19	7.201	2	790	0.01440	0.00	0.00	0	134	0	5.90	0.00

```
***********************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                                 *
* 1  141B  TB 1169 QB  1648.31 QBF  1675.98 QF    27.67       1  141F  TF 1182 QF    33.81 QF-
582618765875662380000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QæB   626.43 Q      1.#R
*                                        1  141BF TBF 1169 QBF  1675.98 QB  1648.31 QF    27.67
***********************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	33.81	1401.6	1675.98	128.314	2	1041	0.00840	0.00	0.00	0	134	0	5.90	0.00
1 142B	27.0	4.22	1428.6	1650.67	129.633	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 143B	0.0	0.00	1428.6	1650.67	129.382	2	872	0.01000	0.00	0.00	0	124	0	5.50	0.00
1 144B	24.7	3.63	1453.3	1635.22	130.544	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 145B	0.0	0.00	1453.3	1635.22	130.221	2	1127	0.01000	0.00	0.00	0	124	0	5.30	0.00
1 146B	26.0	3.68	1479.3	1605.32	131.399	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1479.3	1605.32	131.038	2	1083	0.00870	0.00	0.00	0	124	0	5.10	0.00
1 148B	22.6	3.07	1501.9	1578.62	132.022	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1 149B	0.0	0.00	1501.9	1578.62	131.683	2	872	0.00640	0.00	0.00	0	124	0	4.90	0.00
1 150B	28.5	3.64	1530.4	1552.92	132.847	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 151B	0.0	0.00	1530.4	1552.92	132.357	2	1358	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 152B	23.4	2.86	1553.8	1509.25	133.271	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 153B	0.0	0.00	1553.8	1509.25	132.818	2	1217	0.00940	0.00	0.00	0	124	0	4.40	0.00
1 154B	20.9	2.44	1574.7	1477.26	133.598	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 155B	0.0	0.00	1574.7	1477.26	133.313	2	807	0.01170	0.00	0.00	0	124	0	4.20	0.00
1 156B	26.1	2.97	1600.8	1467.64	134.263	0	0	0.00000	0.00	0.00	0	124	30	4.10	0.01
1 157B	0.0	0.00	1600.8	1467.64	133.953	2	966	0.01090	0.00	0.00	0	124	0	4.10	0.00
1 158B	26.4	2.93	1627.2	1452.21	134.890	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 159B	0.0	0.00	1627.2	1452.21	134.569	2	973	0.01030	0.00	0.00	0	124	0	4.00	0.00
1 160B	29.7	3.22	1656.9	1435.18	135.597	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1 161B	0.0	0.00	1656.9	1435.18	135.187	2	1044	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 162B	27.9	2.94	1684.8	1409.87	136.128	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 163B	0.0	0.00	1684.8	1409.87	135.714	2	1101	0.01000	0.00	0.00	0	124	0	3.80	0.00
1 164B	25.2	2.66	1710.0	1383.19	136.564	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 165B	0.0	0.00	1710.0	1383.19	136.169	2	1034	0.00970	0.00	0.00	0	124	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100B-burn.lac Run date: Mon Sep 21 17:49:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.1	239.25	245.7	314.20	21.776	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	314.20	21.778	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.7	328.31	24.045	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.7	328.31	24.033	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.5	327.49	26.077	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.5	327.49	26.070	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.6	305.83	27.507	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.6	305.83	27.501	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                          *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34      1  114D  TD 1172 QD    16.18
QD266997282230433270000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Q      1.#R
*                                    1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

```
****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                          *
* 1  117B  TB 1161 QB   288.00 QBC  2234.50 QC  1946.50      1  117C  TC 1162 QC  1957.04 QC    -0.00 QÊB   284.85 Q      1.#R
*                                    1  117BC TBC 1162 QBC  2241.90 QB   284.85 QC  1957.04
****************************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1363.0	2241.90	147.248	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.1	2221.50	149.736	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.1	2221.50	149.578	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

```
*                                                    CONFLUENCE Q'S                                                          *
* 1  130B  TB 1165 QB  2197.49 QBE  2243.72 QE    46.23       1  130E  TE 1173 QE    54.09 QE    -0.00 Q"B  1432.20 Q      1.#R
*                                   1  130BE TBE 1165 QBE  2243.72 QB  2197.49 QE    46.23
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.4	2243.72	160.257	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

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*                                                    CONFLUENCE Q'S                                                          *
* 1  141B  TB 1167 QB  2213.40 QBF  2263.67 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 QWB  1349.54 Q      1.#R
*                                   1  141BF TBF 1167 QBF  2263.67 QB  2213.40 QF    50.27
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.6	2263.67	170.586	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.6	2240.26	172.351	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.6	2240.26	172.040	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.3	2226.55	173.582	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 145B	0.0	0.00	1690.3	2226.55	173.236	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.3	2198.21	174.783	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1716.3	2198.21	174.396	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.9	2175.18	175.676	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.9	2175.18	175.294	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.4	2152.77	176.787	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.4	2152.77	176.249	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.8	2105.21	177.411	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.8	2105.21	176.921	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.72	1811.7	2070.86	177.902	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 155B	0.0	0.00	1811.7	2070.86	177.556	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	5.69	1837.8	2054.78	178.746	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.01
1 157B	0.0	0.00	1837.8	2054.78	178.352	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	5.55	1864.2	2034.30	179.521	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 159B	0.0	0.00	1864.2	2034.30	179.121	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.01	1893.9	2015.95	180.396	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 161B	0.0	0.00	1893.9	2015.95	179.959	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	5.44	1921.8	1990.74	181.120	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 163B	0.0	0.00	1921.8	1990.74	180.680	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1947.0	1967.36	181.729	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1947.0	1967.36	181.299	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Basin100B-burn.lac Run date: Mon Sep 21 17:49:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.1	239.25	245.7	314.20	21.776	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	314.20	21.778	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.7	328.31	24.045	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.7	328.31	24.033	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.5	327.49	26.077	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.5	327.49	26.070	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.6	305.83	27.507	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.6	305.83	27.501	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34       1  114D  TD 1172 QD    16.18
QD26699728223043327000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Q      1.#R
*                                        1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1161 QB   288.00 QBC  2234.50 QC  1946.50       1  117C  TC 1162 QC  1957.04 QC    -0.00 QÊB   284.85 Q      1.#R
*                                        1  117BC TBC 1162 QBC  2241.90 QB   284.85 QC  1957.04
*****************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1363.0	2241.90	147.248	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.1	2221.50	149.736	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.1	2221.50	149.578	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

```
*                                                    CONFLUENCE Q'S                                                          *
* 1  130B  TB 1165 QB  2197.49 QBE  2243.72 QE    46.23       1  130E  TE 1173 QE    54.09 QE    -0.00 Q"B  1432.20 Q      1.#R
*                                   1  130BE TBE 1165 QBE  2243.72 QB  2197.49 QE    46.23
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.4	2243.72	160.257	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

```
*                                                    CONFLUENCE Q'S                                                          *
* 1  141B  TB 1167 QB  2213.40 QBF  2263.67 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 QWB  1349.54 Q      1.#R
*                                   1  141BF TBF 1167 QBF  2263.67 QB  2213.40 QF    50.27
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.6	2263.67	170.586	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.6	2240.26	172.351	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.6	2240.26	172.040	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.3	2226.55	173.582	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 145B	0.0	0.00	1690.3	2226.55	173.236	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.3	2198.21	174.783	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1716.3	2198.21	174.396	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.9	2175.18	175.676	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.9	2175.18	175.294	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.4	2152.77	176.787	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.4	2152.77	176.249	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.8	2105.21	177.411	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.8	2105.21	176.921	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.72	1811.7	2070.86	177.902	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 155B	0.0	0.00	1811.7	2070.86	177.556	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	5.69	1837.8	2054.78	178.746	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.01
1 157B	0.0	0.00	1837.8	2054.78	178.352	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	5.55	1864.2	2034.30	179.521	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 159B	0.0	0.00	1864.2	2034.30	179.121	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.01	1893.9	2015.95	180.396	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 161B	0.0	0.00	1893.9	2015.95	179.959	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	5.44	1921.8	1990.74	181.120	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 163B	0.0	0.00	1921.8	1990.74	180.680	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1947.0	1967.36	181.729	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1947.0	1967.36	181.299	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Qbb = 1967.36 x 1.025 = 2016.54 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinA.lac Run date: Wed Sep 23 18:39:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	4.66	40.0	4.66	1.491	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	2A	0.0	0.00	40.0	4.66	1.487	2	2398	0.00920	0.00	0.00	0	124	0	4.20	0.00
1	3A	39.8	4.20	79.8	6.74	2.829	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1	4A	0.0	0.00	79.8	6.74	2.816	2	1498	0.00970	0.00	0.00	0	124	0	3.80	0.00
1	5A	38.3	3.83	118.1	9.03	4.040	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	6A	0.0	0.00	118.1	9.03	4.021	2	1253	0.00910	0.00	0.00	0	124	0	3.60	0.00
1	7A	32.4	3.15	150.5	10.79	5.028	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	8A	0.0	0.00	150.5	10.79	5.005	2	1114	0.01010	0.00	0.00	0	124	0	3.50	0.00
1	9A	27.7	2.61	178.2	11.96	5.841	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	10A	0.0	0.00	178.2	11.96	5.804	2	1242	0.00870	0.00	0.00	0	124	0	3.40	0.00
1	11A	33.9	4.62	212.1	14.01	7.283	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.07
1	12A	0.0	0.00	212.1	14.01	7.232	2	1469	0.00990	0.00	0.00	0	124	0	3.40	0.00
1	13A	38.9	5.94	251.0	17.17	9.132	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	14A	0.0	0.00	251.0	17.17	9.080	2	1177	0.00870	0.00	0.00	0	134	0	3.30	0.00
1	15A	38.3	5.67	289.3	20.65	10.894	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1	16A	0.0	0.00	289.3	20.65	10.848	2	994	0.01040	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinA-burn.lac Run date: Wed Sep 23 18:41:03 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	6.90	212.1	22.50	8.842	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.07
1	12A	0.0	0.00	212.1	22.50	8.788	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	9.90	251.0	26.33	11.037	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	14A	0.0	0.00	251.0	26.33	10.982	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	9.34	289.3	31.46	13.119	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	16A	0.0	0.00	289.3	31.46	13.071	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinA-burn.lac Run date: Wed Sep 23 18:41:03 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	6.90	212.1	22.50	8.842	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.07
1	12A	0.0	0.00	212.1	22.50	8.788	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	9.90	251.0	26.33	11.037	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	14A	0.0	0.00	251.0	26.33	10.982	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	9.34	289.3	31.46	13.119	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	16A	0.0	0.00	289.3	31.46	13.071	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Qbb = 31.46 * 1.025 = 32.25 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinB.lac Run date: Mon Sep 21 09:43:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	3.48	22.1	3.48	1.112	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1	2B	0.0	0.00	22.1	3.48	1.107	2	2664	0.00930	0.00	0.00	0	124	0	3.40	0.00
1	3B	39.9	5.91	62.0	7.31	2.997	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1	4B	0.0	0.00	62.0	7.31	2.988	2	1443	0.01240	0.00	0.00	0	124	0	3.20	0.00
1	5B	39.0	4.23	101.0	10.60	4.342	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.04
1	6B	0.0	0.00	101.0	10.60	4.335	2	732	0.01030	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinB-burn.lac Run date: Mon Sep 21 09:56:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	4.92	22.1	4.92	1.239	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	2B	0.0	0.00	22.1	4.92	1.234	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	8.21	62.0	9.87	3.327	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1	4B	0.0	0.00	62.0	9.87	3.318	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	6.63	101.0	14.97	4.884	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.04
1	6B	0.0	0.00	101.0	14.97	4.876	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinB-burn.lac Run date: Mon Sep 21 09:56:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	4.92	22.1	4.92	1.239	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	2B	0.0	0.00	22.1	4.92	1.234	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	8.21	62.0	9.87	3.327	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1	4B	0.0	0.00	62.0	9.87	3.318	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	6.63	101.0	14.97	4.884	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.04
1	6B	0.0	0.00	101.0	14.97	4.876	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Qbb = 14.97 x 1.025 = 15.34 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinC.lac Run date: Tue Sep 29 13:48:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	4.10	17.8	4.10	1.000	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1	2C	0.0	0.00	17.8	4.10	0.999	2	1591	0.02010	0.00	0.00	0	124	0	6.20	0.00
1	3C	15.5	3.22	33.3	5.94	1.835	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1	4C	0.0	0.00	33.3	5.94	1.834	2	1045	0.01800	0.00	0.00	0	124	0	6.00	0.00
1	5C	29.5	5.50	62.8	9.76	3.364	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	6C	0.0	0.00	62.8	9.76	3.361	2	1347	0.01730	0.00	0.00	0	124	0	5.80	0.00
1	7C	25.1	4.42	87.9	12.63	4.637	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	8C	0.0	0.00	87.9	12.63	4.630	2	1037	0.01750	0.00	0.00	0	124	0	5.70	0.00
1	9C	20.7	3.44	108.6	14.85	5.661	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1	10C	0.0	0.00	108.6	14.85	5.652	2	733	0.01640	0.00	0.00	0	124	0	5.60	0.00
1	11C	25.8	4.03	134.4	17.55	6.913	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	12C	0.0	0.00	134.4	17.55	6.902	2	713	0.01620	0.00	0.00	0	124	0	5.50	0.00
1	13C	31.9	4.99	166.3	20.90	8.461	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	14C	0.0	0.00	166.3	20.90	8.442	2	939	0.01560	0.00	0.00	0	124	0	5.50	0.00
1	15C	34.6	5.19	200.9	24.28	10.101	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	16C	0.0	0.00	200.9	24.28	10.077	2	903	0.01260	0.00	0.00	0	124	0	5.40	0.00
1	17C	32.8	4.73	233.7	27.18	11.591	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	18C	0.0	0.00	233.7	27.18	11.556	2	1112	0.01420	0.00	0.00	0	124	0	5.20	0.00
1	19C	23.2	3.22	256.9	28.61	12.586	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	20C	0.0	0.00	256.9	28.61	12.535	2	1160	0.01210	0.00	0.00	0	124	0	5.00	0.00
1	21C	29.7	3.87	286.6	29.46	13.774	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1	22C	0.0	0.00	286.6	29.46	13.688	2	1549	0.01130	0.00	0.00	0	124	0	4.70	0.00
1	23C	35.4	4.13	322.0	30.15	15.008	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	24C	0.0	0.00	322.0	30.15	14.867	2	1993	0.01060	0.00	0.00	0	124	0	4.20	0.00
1	25C	28.1	3.04	350.1	30.33	15.840	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1	26C	0.0	0.00	350.1	30.33	15.775	2	765	0.00890	0.00	0.00	0	124	0	3.90	0.00
1	27C	35.0	3.50	385.1	30.97	16.894	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	28C	0.0	0.00	385.1	30.97	16.705	2	1922	0.00820	0.00	0.00	0	124	0	3.60	0.00
1	29C	34.0	3.30	419.1	31.12	17.761	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	30C	0.0	0.00	419.1	31.12	17.622	2	1457	0.01040	0.00	0.00	0	124	0	3.50	0.00
1	31C	29.3	2.77	448.4	31.39	18.507	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	32C	0.0	0.00	448.4	31.39	18.382	2	1251	0.01080	0.00	0.00	0	124	0	3.40	0.00
1	33C	35.6	5.19	484.0	32.10	20.043	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.09
1	34C	0.0	0.00	484.0	32.10	19.818	2	2107	0.01100	0.00	0.00	0	124	0	3.30	0.00
1	35D	16.7	3.32	16.7	3.32	0.787	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	36D	0.0	0.00	16.7	3.32	0.786	2	1299	0.01300	0.00	0.00	0	134	0	5.20	0.00
1	37D	29.0	4.02	45.7	6.36	2.074	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	38D	0.0	0.00	45.7	6.36	2.072	2	1308	0.01380	0.00	0.00	0	124	0	5.00	0.00
1	39D	29.9	3.98	75.6	9.09	3.347	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	40D	0.0	0.00	75.6	9.09	3.337	2	1530	0.01050	0.00	0.00	0	124	0	4.80	0.00
1	41D	21.4	2.67	97.0	10.06	4.191	0	0	0.00000	0.00	0.00	0	124	30	4.50	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42D	0.0	0.00	97.0	10.06	4.174	2	1185	0.01070	0.00	0.00	0	124	0	4.50	0.00
1 43D	26.1	3.04	123.1	11.15	5.147	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 44D	0.0	0.00	123.1	11.15	5.113	2	1524	0.01060	0.00	0.00	0	124	0	4.20	0.00
1 45D	30.2	3.35	153.3	12.05	6.185	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 46D	0.0	0.00	153.3	12.05	6.128	2	1697	0.00840	0.00	0.00	0	124	0	4.00	0.00
1 47D	30.2	3.02	183.5	12.39	7.093	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 48D	0.0	0.00	183.5	12.39	7.047	2	1239	0.00990	0.00	0.00	0	124	0	3.60	0.00
1 49D	39.0	3.79	222.5	13.97	8.259	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 50D	0.0	0.00	222.5	13.97	8.189	2	1500	0.00870	0.00	0.00	0	124	0	3.50	0.00
1 51D	31.8	3.89	254.3	15.55	9.433	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.05
1 52D	0.0	0.00	254.3	15.55	9.375	2	1258	0.01140	0.00	0.00	0	124	0	3.40	0.00
1 53D	23.0	3.62	277.3	17.32	10.532	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1 54D	0.0	0.00	277.3	17.32	10.461	2	1118	0.00760	0.00	0.00	0	124	0	3.40	0.00
1 55D	14.6	2.23	291.9	17.90	11.173	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 56D	0.0	0.00	291.9	17.90	11.095	2	1256	0.00990	0.00	0.00	0	124	0	3.30	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   57C  TC 1256 QC    31.80 QCD    46.52 QD    14.72       1   57D  TD 1193 QD    17.61 QD     0.00 Q5C    26.00 Q-     0.00
*                                     1   57CD TCD 1254 QCD    46.56 QC    31.77 QD    14.78
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	17.61	775.9	46.56	30.910	2	5	0.00100	0.00	0.00	0	124	0	3.30	0.00
1 58E	12.6	1.92	12.6	1.92	0.615	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 59E	0.0	0.00	12.6	1.92	0.614	2	1440	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 60E	28.7	4.25	41.3	5.45	1.973	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 61E	0.0	0.00	41.3	5.45	1.957	2	3334	0.01150	0.00	0.00	0	124	0	3.20	0.00
1 62F	16.5	3.61	16.5	3.61	0.909	0	0	0.00000	0.00	0.00	0	124	30	6.10	0.01
1 63F	0.0	0.00	16.5	3.61	0.908	2	1673	0.02100	0.00	0.00	0	124	0	6.10	0.00
1 64F	24.0	4.99	40.5	7.04	2.203	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1 65F	0.0	0.00	40.5	7.04	2.202	2	955	0.02000	0.00	0.00	0	124	0	6.00	0.00
1 66F	33.9	6.32	74.4	12.02	3.960	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 67F	0.0	0.00	74.4	12.02	3.959	2	1251	0.01830	0.00	0.00	0	124	0	5.80	0.00
1 68F	29.6	5.21	104.0	15.74	5.463	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1 69F	0.0	0.00	104.0	15.74	5.455	2	1122	0.01740	0.00	0.00	0	124	0	5.70	0.00
1 70F	25.9	4.30	129.9	18.58	6.746	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 71F	0.0	0.00	129.9	18.58	6.734	2	874	0.01460	0.00	0.00	0	124	0	5.60	0.00
1 72F	26.7	4.17	156.6	21.14	8.038	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 73F	0.0	0.00	156.6	21.14	8.021	2	907	0.01500	0.00	0.00	0	124	0	5.50	0.00
1 74F	29.9	4.48	186.5	23.58	9.454	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1 75F	0.0	0.00	186.5	23.58	9.432	2	876	0.01400	0.00	0.00	0	124	0	5.40	0.00
1 76F	39.5	5.70	226.0	26.63	11.256	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1 77F	0.0	0.00	226.0	26.63	11.227	2	987	0.01600	0.00	0.00	0	124	0	5.20	0.00
1 78F	38.8	5.39	264.8	29.56	12.950	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 79F	0.0	0.00	264.8	29.56	12.916	2	900	0.01300	0.00	0.00	0	124	0	5.00	0.00
1 80F	39.6	5.28	304.4	32.44	14.603	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 81F	0.0	0.00	304.4	32.44	14.569	2	831	0.01430	0.00	0.00	0	124	0	4.80	0.00
1 82F	39.9	5.09	344.3	35.33	16.198	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 83F	0.0	0.00	344.3	35.33	16.156	2	829	0.01210	0.00	0.00	0	124	0	4.60	0.00
1 84F	39.8	4.86	384.1	37.91	17.710	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 85F	0.0	0.00	384.1	37.91	17.660	2	853	0.01170	0.00	0.00	0	124	0	4.40	0.00
1 86F	39.1	4.78	423.2	40.15	19.187	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 87F	0.0	0.00	423.2	40.15	19.107	2	1094	0.00990	0.00	0.00	0	124	0	4.40	0.00
1 88F	22.9	2.67	446.1	40.45	19.960	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 89F	0.0	0.00	446.1	40.45	19.881	2	845	0.00780	0.00	0.00	0	124	0	4.20	0.00
1 90F	36.2	3.92	482.3	41.35	21.134	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1 91F	0.0	0.00	482.3	41.35	20.962	2	1675	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 92F	23.7	2.37	506.0	41.37	21.719	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 93F	0.0	0.00	506.0	41.37	21.575	2	1298	0.00950	0.00	0.00	0	124	0	3.60	0.00
1 94F	17.9	1.74	523.9	41.47	22.132	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 95F	0.0	0.00	523.9	41.47	22.003	2	1020	0.00840	0.00	0.00	0	124	0	3.50	0.00
1 96F	22.5	2.12	546.4	41.70	22.682	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 97F	0.0	0.00	546.4	41.70	22.468	2	1387	0.00640	0.00	0.00	0	124	0	3.40	0.00
1 98F	21.4	2.02	567.8	41.67	23.113	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 99F	0.0	0.00	567.8	41.67	22.954	2	1222	0.00990	0.00	0.00	0	124	0	3.40	0.00
1 100F	16.7	2.55	584.5	41.91	23.769	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 101F	0.0	0.00	584.5	41.91	23.612	2	1247	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 102F	23.0	3.41	607.5	42.30	24.701	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 103F	0.0	0.00	607.5	42.30	24.243	2	3287	0.01110	0.00	0.00	0	124	0	3.20	0.00
1 104G	18.2	2.78	18.2	2.78	0.889	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1 105G	0.0	0.00	18.2	2.78	0.887	2	1898	0.01040	0.00	0.00	0	134	0	3.30	0.00
1 106G	39.9	5.12	58.1	6.60	2.525	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.07
1 107G	0.0	0.00	58.1	6.60	2.507	2	2469	0.00900	0.00	0.00	0	134	0	3.20	0.00
1 109C	21.4	3.17	797.3	47.04	31.924	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 108CE	41.3	4.57	838.6	49.02	33.880	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00
1 109CF	607.5	41.36	1446.1	89.81	58.123	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                                *
* 1  110C  TC 1258 QC    89.81 QCG    91.91 QG     2.11       1  110G  TG 1192 QG     5.89
QG4976247156743125000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00.00 Q§C    76.46 Q-     0.00
*                                  1  110CG TCG 1257 QCG    91.92 QC    89.79 QG     2.13
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	5.89	1504.2	91.92	59.954	2	2279	0.00940	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinC-burn.lac Run date: Tue Sep 29 14:26:22 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	7.40	484.0	63.27	26.041	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.09
1	34C	0.0	0.00	484.0	63.27	25.798	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	7.06	16.7	7.06	1.181	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	36D	0.0	0.00	16.7	7.06	1.180	2	1299	0.01300	0.00	0.00	0	336	0	5.20	0.00
1	37D	29.0	8.52	45.7	13.82	2.864	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	13.82	2.862	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	19.54	4.513	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	40D	0.0	0.00	75.6	19.54	4.502	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1	41D	21.4	5.36	97.0	21.36	5.594	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42D	0.0	0.00	97.0	21.36	5.574	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.74	6.799	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.74	6.762	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	23.02	8.099	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	23.02	8.037	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	23.52	9.216	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	23.52	9.166	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	6.75	222.5	24.31	10.639	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 50D	0.0	0.00	222.5	24.31	10.563	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	6.08	254.3	25.10	12.000	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.05
1 52D	0.0	0.00	254.3	25.10	11.937	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	5.12	277.3	26.83	13.226	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 54D	0.0	0.00	277.3	26.83	13.150	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	3.12	291.9	27.03	13.941	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 56D	0.0	0.00	291.9	27.03	13.857	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

****
* CONFLUENCE Q'S *
* 1 57C TC 1242 QC 62.30 QCD 88.18 QD 25.88 1 57D TD 1196 QD 26.77 QD-876402597332663460000000000.00 Q□C
41.01 Q_ 0.00
* 1 57CD TCD 1242 QCD 88.18 QC 62.30 QD 25.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	26.77	775.9	88.18	39.652	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.70	12.6	2.70	0.683	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 59E	0.0	0.00	12.6	2.70	0.682	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	5.90	41.3	7.47	2.187	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 61E	0.0	0.00	41.3	7.47	2.170	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.28	30.124	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	3.57	584.5	81.33	31.030	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 101F	0.0	0.00	584.5	81.33	30.859	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	4.73	607.5	81.57	32.065	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 103F	0.0	0.00	607.5	81.57	31.570	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	4.63	18.2	4.63	1.052	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1 105G	0.0	0.00	18.2	4.63	1.051	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	9.07	58.1	11.16	3.037	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.07
1 107G	0.0	0.00	58.1	11.16	3.018	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	4.40	797.3	88.72	40.774	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 108CE	41.3	6.16	838.6	91.35	42.944	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00
1 109CF	607.5	79.07	1446.1	169.33	74.514	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00

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*                                                          CONFLUENCE Q'S                                                   *
* 1  110C  TC 1246 QC   169.33 QCG   172.42 QG     3.09       1  110G  TG 1189 QG     9.83 QG     0.00 Q6C   111.85 Q_     0.00
*                                      1  110CG TCG 1245 QCG   172.43 QC   169.29 QG     3.14
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	9.83	1504.2	172.43	76.805	2	2279	0.00940	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\c-delete\BasinC-burn.lac Run date: Mon Sep 21 16:17:27 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	7.62	484.0	63.31	26.116	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1	34C	0.0	0.00	484.0	63.31	25.873	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	5.21	16.7	5.21	1.018	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	36D	0.0	0.00	16.7	5.21	1.017	2	1299	0.01300	0.00	0.00	0	332	0	5.20	0.00
1	37D	29.0	8.52	45.7	12.18	2.701	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	12.18	2.700	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	18.21	4.351	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	40D	0.0	0.00	75.6	18.21	4.340	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1	41D	21.4	5.36	97.0	20.36	5.432	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42D	0.0	0.00	97.0	20.36	5.413	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.08	6.638	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.08	6.601	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	22.46	7.938	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	22.46	7.876	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	22.87	9.056	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	22.87	9.006	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	7.75	222.5	24.14	10.827	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.05
1 50D	0.0	0.00	222.5	24.14	10.752	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	6.08	254.3	25.89	12.190	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.05
1 52D	0.0	0.00	254.3	25.89	12.127	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	5.12	277.3	27.67	13.416	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 54D	0.0	0.00	277.3	27.67	13.339	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	3.12	291.9	27.85	14.130	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 56D	0.0	0.00	291.9	27.85	14.045	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

****
* CONFLUENCE Q'S *
* 1 57C TC 1242 QC 62.34 QCD 87.99 QD 25.65 1 57D TD 1196 QD 27.57 QD-
7407255149306303000000000000000000000000000000000000000000000000000000000000000000.00 Q=C 41.12 Q 1.#R
* 1 57CD TCD 1242 QCD 87.99 QC 62.34 QD 25.65
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	27.57	775.9	87.99	39.915	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.70	12.6	2.70	0.683	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 59E	0.0	0.00	12.6	2.70	0.682	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	5.90	41.3	7.47	2.187	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 61E	0.0	0.00	41.3	7.47	2.170	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.28	30.124	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	3.57	584.5	81.33	31.030	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 101F	0.0	0.00	584.5	81.33	30.859	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	4.73	607.5	81.57	32.065	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 103F	0.0	0.00	607.5	81.57	31.570	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	4.63	18.2	4.63	1.052	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1 105G	0.0	0.00	18.2	4.63	1.051	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	9.07	58.1	11.16	3.037	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.07
1 107G	0.0	0.00	58.1	11.16	3.018	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	5.22	797.3	88.56	41.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 108CE	41.3	6.16	838.6	91.21	43.279	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00
1 109CF	607.5	79.07	1446.1	169.06	74.849	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

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*                                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1246 QC   169.06 QCG   172.15 QG     3.09       1  110G  TG 1189 QG     9.83 QG-
8136083644904619500000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q‰C   112.84 Q      1.#R
*                                          1  110CG TCG 1245 QCG   172.19 QC   169.04 QG     3.14
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	9.83	1504.2	172.19	77.138	2	2279	0.00940	0.00	0.00	0	336	0	3.20	0.00

Qbb = 172.19 x 1.025 = 176.49 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinH.lac Run date: Mon Sep 21 08:18:14 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	2.90	19.0	2.90	0.928	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	2H	0.0	0.00	19.0	2.90	0.927	2	1718	0.00900	0.00	0.00	0	134	0	3.30	0.00
1	3H	39.5	4.03	58.5	5.73	2.215	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1	4H	0.0	0.00	58.5	5.73	2.208	2	1850	0.01120	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BsinH-burn.lac Run date: Mon Sep 21 08:51:04 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	4.84	19.0	4.84	1.098	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	2H	0.0	0.00	19.0	4.84	1.098	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	8.10	58.5	10.48	2.746	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4H	0.0	0.00	58.5	10.48	2.738	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BsinH-burn.lac Run date: Mon Sep 21 08:51:04 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	4.84	19.0	4.84	1.098	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	2H	0.0	0.00	19.0	4.84	1.098	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	8.10	58.5	10.48	2.746	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4H	0.0	0.00	58.5	10.48	2.738	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Qbb = 10.48 x 1.025 = 10.74 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinI.lac Run date: Mon Sep 21 08:08:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	2.01	10.8	2.01	0.560	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	2I	0.0	0.00	10.8	2.01	0.559	2	1416	0.01690	0.00	0.00	0	124	0	5.80	0.00
1	3I	18.1	3.19	28.9	4.30	1.479	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	4I	0.0	0.00	28.9	4.30	1.479	2	929	0.01630	0.00	0.00	0	124	0	5.70	0.00
1	5I	12.8	2.25	41.7	5.99	2.129	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	6I	0.0	0.00	41.7	5.99	2.128	2	459	0.01690	0.00	0.00	0	124	0	5.70	0.00
1	7I	16.5	4.25	58.2	9.40	2.986	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1	8I	0.0	0.00	58.2	9.40	2.985	2	616	0.01360	0.00	0.00	0	134	0	5.60	0.00
1	9I	25.9	6.68	84.1	14.85	4.331	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1	10I	0.0	0.00	84.1	14.85	4.329	2	879	0.01490	0.00	0.00	0	134	0	5.60	0.00
1	11I	26.8	6.50	110.9	19.40	5.688	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1	12I	0.0	0.00	110.9	19.40	5.678	2	968	0.01270	0.00	0.00	0	134	0	5.50	0.00
1	13I	31.1	6.62	142.0	22.73	7.180	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1	14I	0.0	0.00	142.0	22.73	7.159	2	1180	0.01260	0.00	0.00	0	134	0	5.30	0.00
1	15I	37.7	7.48	179.7	26.12	8.936	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	16I	0.0	0.00	179.7	26.12	8.899	2	1443	0.01290	0.00	0.00	0	134	0	5.20	0.00
1	17I	27.6	4.37	207.3	26.85	10.107	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1	18I	0.0	0.00	207.3	26.85	10.076	2	900	0.01190	0.00	0.00	0	134	0	4.90	0.00
1	19I	25.5	3.71	232.8	27.58	11.165	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1	20I	0.0	0.00	232.8	27.58	11.132	2	838	0.01250	0.00	0.00	0	134	0	4.80	0.00
1	21I	37.2	4.75	270.0	28.79	12.651	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1	22I	0.0	0.00	270.0	28.79	12.593	2	1165	0.01030	0.00	0.00	0	134	0	4.60	0.00
1	23I	34.3	4.19	304.3	29.66	13.932	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1	24I	0.0	0.00	304.3	29.66	13.874	2	1034	0.01070	0.00	0.00	0	134	0	4.40	0.00
1	25I	38.0	4.43	342.3	30.55	15.291	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1	26I	0.0	0.00	342.3	30.55	15.221	2	1049	0.01010	0.00	0.00	0	134	0	4.20	0.00
1	27I	39.5	4.17	381.8	31.33	16.554	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1	28I	0.0	0.00	381.8	31.33	16.385	2	2077	0.00930	0.00	0.00	0	134	0	3.80	0.00
1	29I	29.4	3.70	411.2	31.76	17.569	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.05
1	30I	0.0	0.00	411.2	31.76	17.416	2	1661	0.00960	0.00	0.00	0	134	0	3.50	0.00
1	31I	39.6	6.23	450.8	32.68	19.408	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1	32I	0.0	0.00	450.8	32.68	19.278	2	1306	0.00980	0.00	0.00	0	134	0	3.40	0.00
1	33I	39.3	8.38	490.1	33.98	21.958	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.18
1	34I	0.0	0.00	490.1	33.98	21.791	2	1279	0.00660	0.00	0.00	0	134	0	3.40	0.00
1	35I	26.7	4.08	516.8	34.54	23.095	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	36I	0.0	0.00	516.8	34.54	23.002	2	878	0.01140	0.00	0.00	0	134	0	3.30	0.00
1	37I	37.9	4.61	554.7	37.02	24.478	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	38I	0.0	0.00	554.7	37.02	24.220	2	1809	0.00760	0.00	0.00	0	134	0	3.20	0.00
1	39J	27.8	5.52	27.8	5.52	1.310	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	40J	0.0	0.00	27.8	5.52	1.310	2	1645	0.01190	0.00	0.00	0	134	0	5.20	0.00
1	41J	18.8	3.22	46.6	6.65	2.153	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	42J	0.0	0.00	46.6	6.65	2.152	2	760	0.01290	0.00	0.00	0	134	0	5.00	0.00
1	43J	32.3	5.11	78.9	9.93	3.566	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1	44J	0.0	0.00	78.9	9.93	3.562	2	1022	0.01280	0.00	0.00	0	134	0	4.90	0.00
1	45J	32.3	4.31	111.2	13.04	4.910	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1	46J	0.0	0.00	111.2	13.04	4.897	2	1126	0.01150	0.00	0.00	0	134	0	4.70	0.00
1	47J	27.3	3.33	138.5	15.12	5.963	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1	48J	0.0	0.00	138.5	15.12	5.942	2	1116	0.01060	0.00	0.00	0	134	0	4.40	0.00
1	49J	22.5	2.62	161.0	15.96	6.781	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1	50J	0.0	0.00	161.0	15.96	6.754	2	1019	0.01040	0.00	0.00	0	134	0	4.20	0.00
1	51J	18.6	1.96	179.6	16.16	7.381	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1	52J	0.0	0.00	179.6	16.16	7.344	2	1085	0.00980	0.00	0.00	0	134	0	3.80	0.00
1	53J	35.3	4.83	214.9	17.23	8.887	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.05
1	54J	0.0	0.00	214.9	17.23	8.831	2	1400	0.01030	0.00	0.00	0	134	0	3.80	0.00
1	55J	40.0	6.66	254.9	20.33	10.961	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.10
1	56J	0.0	0.00	254.9	20.33	10.878	2	1510	0.00790	0.00	0.00	0	134	0	3.60	0.00
1	57J	40.0	6.29	294.9	23.49	12.890	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1	58J	0.0	0.00	294.9	23.49	12.803	2	1410	0.00900	0.00	0.00	0	134	0	3.40	0.00
1	59J	37.3	3.92	332.2	24.80	14.058	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.03
1	60J	0.0	0.00	332.2	24.80	13.955	2	1434	0.00910	0.00	0.00	0	134	0	3.30	0.00
1	61J	28.5	4.22	360.7	25.42	15.304	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1	62J	0.0	0.00	360.7	25.42	15.105	2	2082	0.00730	0.00	0.00	0	134	0	3.20	0.00
1	63IJ	360.7	24.97	915.4	60.07	39.324	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinI-burn.lac Run date: Mon Sep 21 08:13:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	4.60	41.7	12.90	2.866	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	6I	0.0	0.00	41.7	12.90	2.865	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	7.89	58.2	19.51	4.155	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	8I	0.0	0.00	58.2	19.51	4.155	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	12.38	84.1	30.06	6.180	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	10I	0.0	0.00	84.1	30.06	6.177	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	40.09	8.221	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	40.09	8.210	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	50.02	10.466	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	50.02	10.444	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	59.88	13.110	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	59.88	13.069	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	63.82	14.871	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	63.82	14.836	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	66.79	16.456	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	66.79	16.420	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	70.74	18.654	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	70.74	18.589	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	71.95	20.531	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	71.95	20.466	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	73.47	22.491	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	73.47	22.415	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	74.87	24.265	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	74.87	24.077	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	7.26	411.2	75.35	25.575	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.05
1	30I	0.0	0.00	411.2	75.35	25.403	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	10.51	450.8	76.44	27.773	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	32I	0.0	0.00	450.8	76.44	27.628	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	12.25	490.1	77.98	30.650	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.18
1	34I	0.0	0.00	490.1	77.98	30.463	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	6.80	516.8	78.45	32.006	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	36I	0.0	0.00	516.8	78.45	31.903	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	8.40	554.7	79.29	33.713	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	38I	0.0	0.00	554.7	79.29	33.427	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1	41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	9.86	214.9	43.61	12.817	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.05
1 54J	0.0	0.00	214.9	43.61	12.754	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	11.51	254.9	45.08	15.313	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1 56J	0.0	0.00	254.9	45.08	15.220	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	10.62	294.9	46.16	17.613	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1 58J	0.0	0.00	294.9	46.16	17.517	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	8.02	332.2	46.81	19.133	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.03
1 60J	0.0	0.00	332.2	46.81	19.019	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	6.95	360.7	47.45	20.609	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 62J	0.0	0.00	360.7	47.45	20.391	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

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*                                                                CONFLUENCE Q'S                                                *
* 1   63I  TI 1240 QI    78.65 QIJ   125.15 QJ    46.51       1   63J  TJ 1233 QJ    47.03 QJ    -1.#T Q<I    77.67 Q      1.#R
*                                   1   63IJ TIJ 1237 QIJ   125.37 QI    78.48 QJ    46.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	47.03	915.4	125.37	53.816	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinI-burn.lac Run date: Mon Sep 21 08:13:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	4.60	41.7	12.90	2.866	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	6I	0.0	0.00	41.7	12.90	2.865	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	7.89	58.2	19.51	4.155	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	8I	0.0	0.00	58.2	19.51	4.155	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	12.38	84.1	30.06	6.180	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	10I	0.0	0.00	84.1	30.06	6.177	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	40.09	8.221	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	40.09	8.210	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	50.02	10.466	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	50.02	10.444	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	59.88	13.110	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	59.88	13.069	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	63.82	14.871	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	63.82	14.836	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	66.79	16.456	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	66.79	16.420	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	70.74	18.654	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	70.74	18.589	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	71.95	20.531	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	71.95	20.466	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	73.47	22.491	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	73.47	22.415	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	74.87	24.265	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	74.87	24.077	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	7.26	411.2	75.35	25.575	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.05
1	30I	0.0	0.00	411.2	75.35	25.403	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	10.51	450.8	76.44	27.773	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	32I	0.0	0.00	450.8	76.44	27.628	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	12.25	490.1	77.98	30.650	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.18
1	34I	0.0	0.00	490.1	77.98	30.463	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	6.80	516.8	78.45	32.006	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	36I	0.0	0.00	516.8	78.45	31.903	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	8.40	554.7	79.29	33.713	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	38I	0.0	0.00	554.7	79.29	33.427	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1	41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	9.86	214.9	43.61	12.817	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.05
1 54J	0.0	0.00	214.9	43.61	12.754	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	11.51	254.9	45.08	15.313	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1 56J	0.0	0.00	254.9	45.08	15.220	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	10.62	294.9	46.16	17.613	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1 58J	0.0	0.00	294.9	46.16	17.517	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	8.02	332.2	46.81	19.133	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.03
1 60J	0.0	0.00	332.2	46.81	19.019	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	6.95	360.7	47.45	20.609	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 62J	0.0	0.00	360.7	47.45	20.391	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1   63I  TI 1240 QI    78.65 QIJ   125.15 QJ    46.51       1   63J  TJ 1233 QJ    47.03 QJ    -1.#T Q<I    77.67 Q      1.#R
*                                   1   63IJ TIJ 1237 QIJ   125.37 QI    78.48 QJ    46.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	47.03	915.4	125.37	53.816	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 125.37 x 1.025 = 128.50 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinK.lac Run date: Wed Sep 23 11:31:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1K	353.1	884.88	353.1	884.88	41.569	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1 2K	0.0	0.00	353.1	884.88	41.545	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 3K	21.5	16.52	374.6	889.30	42.909	0	0	0.00000	0.00	0.00	0	124	12	6.40	0.01
1 4K	0.0	0.00	374.6	889.30	42.909	2	571	0.03050	0.00	0.00	0	124	0	6.40	0.00
1 5K	39.6	9.57	414.2	892.76	45.177	0	0	0.00000	0.00	0.00	0	124	30	6.30	0.01
1 6B	39.7	5.88	39.7	5.88	1.880	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1 6K	0.0	0.00	414.2	892.76	45.178	2	1014	0.02040	0.00	0.00	0	134	0	3.20	0.00
1 7K	39.6	9.11	453.8	882.30	47.402	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1 8K	0.0	0.00	453.8	882.30	47.418	2	1054	0.01830	0.00	0.00	0	124	0	6.20	0.00
1 9K	30.7	15.90	484.5	878.31	49.259	0	0	0.00000	0.00	0.00	0	134	21	6.00	0.01
1 10K	0.0	0.00	484.5	878.31	49.254	2	957	0.01610	0.00	0.00	0	134	0	6.00	0.00
1 11K	33.2	10.17	517.7	870.84	51.105	0	0	0.00000	0.00	0.00	0	134	30	5.90	0.01
1 12K	0.0	0.00	517.7	870.84	51.019	2	1511	0.01470	0.00	0.00	0	134	0	5.90	0.00
1 13L	28.8	30.99	28.8	30.99	2.035	0	0	0.00000	0.00	0.00	0	134	12	6.60	0.01
1 14L	0.0	0.00	28.8	30.99	2.035	2	659	0.02120	0.00	0.00	0	134	0	6.60	0.00
1 15L	24.8	25.98	53.6	52.41	3.753	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1 16L	0.0	0.00	53.6	52.41	3.751	2	724	0.02090	0.00	0.00	0	134	0	6.50	0.00
1 17B	39.1	5.88	78.8	11.75	3.759	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.09
1 18L	0.0	0.00	53.6	50.29	3.750	2	1152	0.01700	0.00	0.00	0	134	0	3.40	0.00
1 19L	21.3	8.02	74.9	50.95	5.029	0	0	0.00000	0.00	0.00	0	134	29	6.20	0.01
1 20L	0.0	0.00	74.9	50.95	5.024	2	1374	0.01640	0.00	0.00	0	134	0	6.20	0.00
1 21L	17.9	5.79	92.8	48.23	6.046	0	0	0.00000	0.00	0.00	0	134	30	6.00	0.01
1 22L	0.0	0.00	92.8	48.23	6.026	2	1523	0.01560	0.00	0.00	0	134	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   23K  TK 1166 QK   827.13 QKL   839.67 QL    12.55       1   23L  TL 1180 QL    42.41 QL    -0.00 Q)K   210.07 Q      1.#R
*                                        1   23KL TKL 1166 QKL   839.67 QK   827.13 QL    12.55
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 23KL	92.8	42.41	610.5	839.67	56.972	2	709	0.01300	0.00	0.00	0	134	0	6.00	0.00
1 24K	30.9	13.52	641.4	833.86	58.659	0	0	0.00000	0.00	0.00	0	134	21	5.60	0.01
1 25K	0.0	0.00	641.4	833.86	58.574	2	778	0.01320	0.00	0.00	0	134	0	5.60	0.00
1 26K	32.3	8.78	673.7	828.64	60.260	0	0	0.00000	0.00	0.00	0	134	29	5.60	0.01
1 27K	0.0	0.00	673.7	828.64	60.162	2	881	0.01070	0.00	0.00	0	134	0	5.60	0.00
1 28K	28.9	7.00	702.6	814.62	61.628	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1 29K	0.0	0.00	702.6	814.62	61.497	2	934	0.01050	0.00	0.00	0	134	0	5.50	0.00
1 30K	21.2	4.82	723.8	798.64	62.546	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1 31K	0.0	0.00	723.8	798.64	62.429	2	853	0.01320	0.00	0.00	0	134	0	5.40	0.00
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 34M	31.7	20.05	971.7	3852.37	515.150	0	0	0.00000	0.00	0.00	0	134	21	6.60	0.01
1 35M	0.0	0.00	971.7	3852.37	515.040	2	1319	0.02170	0.00	0.00	0	134	0	6.60	0.00
1 36M	29.5	18.35	1001.2	3787.72	516.975	0	0	0.00000	0.00	0.00	0	134	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3787.72	516.918	2	1114	0.01940	0.00	0.00	0	134	0	6.40	0.00
1 38M	27.9	16.24	1029.1	3677.02	518.673	0	0	0.00000	0.00	0.00	0	134	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3677.02	518.636	2	1014	0.01810	0.00	0.00	0	134	0	6.20	0.00
1 40M	39.2	13.35	1068.3	3570.70	520.925	0	0	0.00000	0.00	0.00	0	134	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3570.70	520.868	2	1409	0.01550	0.00	0.00	0	134	0	6.10	0.00
1 42N	509.8	1062.00	509.8	1062.00	59.763	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	509.8	1062.00	59.834	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	49.50	549.3	1092.01	62.646	0	0	0.00000	0.00	0.00	0	134	10	6.60	0.01
1 45N	0.0	0.00	549.3	1092.01	62.648	2	684	0.05170	0.00	0.00	0	134	0	6.60	0.00
1 46N	38.9	40.76	588.2	1124.07	65.344	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1 47N	0.0	0.00	588.2	1124.07	65.337	2	702	0.02820	0.00	0.00	0	134	0	6.50	0.00
1 48N	37.9	31.26	626.1	1147.48	67.875	0	0	0.00000	0.00	0.00	0	134	15	6.40	0.01
1 49N	0.0	0.00	626.1	1147.48	67.853	2	938	0.02310	0.00	0.00	0	134	0	6.40	0.00
1 50N	32.3	11.57	658.4	1151.23	69.783	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 51N	0.0	0.00	658.4	1151.23	69.681	2	1933	0.00920	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52M  TM 1160 QM  3468.39 QMN  4140.34 QN   671.95       1   52N  TN 1165 QN  1065.14 QN2134646784.00 Q‰M  1970.63 Q      1.#R
*                                      1   52MN TMN 1161 QMN  4208.08 QM  3403.92 QN   804.15
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	658.4	1065.14	1726.7	4208.08	590.447	2	885	0.02080	0.00	0.00	0	134	0	6.20	0.00
1 53M	18.1	5.24	1744.8	4155.00	591.433	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01
1 54M	0.0	0.00	1744.8	4155.00	591.167	2	1259	0.00920	0.00	0.00	0	134	0	5.80	0.00
1 55O	35.7	12.79	35.7	12.79	2.133	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 56O	0.0	0.00	35.7	12.79	2.133	2	2369	0.01220	0.00	0.00	0	134	0	6.20	0.00
1 57B	40.0	25.81	118.8	37.51	6.297	0	0	0.00000	0.00	0.00	0	134	18	6.20	0.01
1 58O	0.0	0.00	35.7	9.59	2.123	2	1288	0.01250	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   59M  TM 1164 QM  4038.97 QMO  4041.48 QO     2.51       1   59O  TO 1191 QO     8.90 QO     0.00 Q²M   664.94 Q      1.#R
*                                      1   59MO TMO 1164 QMO  4041.48 QM  4038.97 QO     2.51
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	8.90	1780.5	4041.48	592.935	2	934	0.01150	0.00	0.00	0	134	0	6.20	0.00
1 60M	21.5	5.54	1802.0	3993.24	594.052	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 61M	0.0	0.00	1802.0	3993.24	593.587	2	1075	0.01320	0.00	0.00	0	134	0	5.60	0.00
1 62M	0.0	0.00	1802.0	3905.35	593.586	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   63K  TK 1176 QK   785.72 QKM  2842.47 QM  2056.75       1   63M  TM 1166 QM  3904.29 QM-
28641682232155024000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000.00 Q□K   199.27 Q      1.#R
*                                        1   63KM TKM 1167 QKM  4118.69 QK   216.68 QM  3902.01
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	63KM	1802.0	3904.29	2525.8	4118.69	656.012	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00
1	64K	31.4	8.99	2557.2	4125.64	657.629	0	0	0.00000	0.00	0.00	0	134	27	5.50	0.01
1	65K	0.0	0.00	2557.2	4125.64	657.128	2	784	0.01050	0.00	0.00	0	134	0	5.50	0.00
1	66K	37.2	5.58	2594.4	4096.12	658.911	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	67K	0.0	0.00	2594.4	4096.12	658.373	2	770	0.01080	0.00	0.00	0	124	0	5.40	0.00
1	68K	34.7	5.01	2629.1	4062.93	659.975	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	69K	0.0	0.00	2629.1	4062.93	659.144	2	992	0.01000	0.00	0.00	0	124	0	5.20	0.00
1	70K	19.1	2.65	2648.2	3997.06	659.992	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	71K	0.0	0.00	2648.2	3997.06	658.970	2	975	0.00800	0.00	0.00	0	124	0	5.00	0.00
1	72K	10.9	1.48	2659.1	3952.97	659.444	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1	73K	0.0	0.00	2659.1	3952.97	658.562	2	715	0.00700	0.00	0.00	0	124	0	4.90	0.00
1	74K	24.2	3.22	2683.3	3915.29	659.593	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	75K	0.0	0.00	2683.3	3915.29	658.428	2	1168	0.01280	0.00	0.00	0	124	0	4.80	0.00
1	76P	82.8	265.02	82.8	265.02	9.785	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1	77P	0.0	0.00	82.8	265.02	9.782	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	78P	26.5	7.36	109.3	265.93	11.391	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1	79P	0.0	0.00	109.3	265.93	11.386	2	1220	0.00870	0.00	0.00	0	124	0	6.60	0.00
1	80P	39.7	15.68	149.0	233.97	13.868	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	81P	0.0	0.00	149.0	233.97	13.838	2	2419	0.01850	0.00	0.00	0	134	0	6.40	0.00
1	82Q	40.0	22.18	40.0	22.18	2.688	0	0	0.00000	0.00	0.00	0	134	24	6.60	0.01
1	83Q	0.0	0.00	40.0	22.18	2.688	2	1582	0.02720	0.00	0.00	0	134	0	6.60	0.00
1	84Q	40.0	15.80	80.0	34.05	5.188	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	85Q	0.0	0.00	80.0	34.05	5.185	2	1847	0.02110	0.00	0.00	0	134	0	6.40	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   86P  TP 1166 QP   185.84 QPQ   209.63 QQ    23.79       1   86Q  TQ 1174 QQ    31.43 QQ    -0.00 QÒP   111.72 Q      1.#R
*                                        1   86PQ TPQ 1166 QPQ   209.63 QP   185.84 QQ    23.79
*****************************************************************************************************************
```

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	86PQ	80.0	31.43	229.0	209.63	18.998	2	949	0.02000	0.00	0.00	0	134	0	6.40	0.00
1	87P	40.0	29.16	269.0	208.95	21.654	0	0	0.00000	0.00	0.00	0	134	17	6.40	0.01
1	88P	0.0	0.00	269.0	208.95	21.612	2	856	0.01150	0.00	0.00	0	134	0	6.40	0.00
1	89P	40.0	14.32	309.0	210.18	23.878	0	0	0.00000	0.00	0.00	0	134	27	5.90	0.01
1	90P	0.0	0.00	309.0	210.18	23.815	2	1066	0.01300	0.00	0.00	0	134	0	5.90	0.00
1	91P	40.0	11.59	349.0	207.48	25.994	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 92P	0.0	0.00	349.0	207.48	25.890	2	1323	0.01000	0.00	0.00	0	134	0	5.80	0.00
1 93P	38.5	9.92	387.5	199.46	27.890	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 94P	0.0	0.00	387.5	199.46	27.781	2	1231	0.00980	0.00	0.00	0	134	0	5.60	0.00
1 95P	32.9	5.14	420.4	192.38	29.388	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 96P	0.0	0.00	420.4	192.38	29.101	2	853	0.00100	0.00	0.00	0	124	0	5.50	0.00
1 97P	32.3	4.75	452.7	169.94	30.621	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 98P	0.0	0.00	452.7	169.94	30.505	2	903	0.00830	0.00	0.00	0	124	0	5.30	0.00
1 99P	36.0	5.10	488.7	168.68	32.135	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01
1 100P	0.0	0.00	488.7	168.68	31.965	2	1173	0.00770	0.00	0.00	0	124	0	5.10	0.00
1 101P	22.9	3.18	511.6	164.81	32.982	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 102P	0.0	0.00	511.6	164.81	32.881	2	832	0.01210	0.00	0.00	0	124	0	5.00	0.00
1 103P	12.6	1.68	524.2	163.76	33.418	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 104P	0.0	0.00	524.2	163.76	33.292	2	949	0.01050	0.00	0.00	0	124	0	4.80	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1175 QK 3872.15 QKP 3908.59 QP 36.45 1 105P TP 1216 QP 161.78
QP11762611383907087000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000.00 Q•K 724.92 Q 1.#R
* 1 105KP TKP 1175 QKP 3908.59 QK 3872.15 QP 36.45
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	524.2	161.78	3207.5	3908.59	691.715	2	5	0.01000	0.00	0.00	0	124	0	4.80	0.00
1 106K	32.1	4.19	3239.6	3911.54	693.054	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1 107K	0.0	0.00	3239.6	3911.54	691.966	2	913	0.01100	0.00	0.00	0	124	0	4.70	0.00
1 108K	37.7	4.81	3277.3	3884.49	693.506	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 109K	0.0	0.00	3277.3	3884.49	692.083	2	1081	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 110K	39.4	4.81	3316.7	3838.95	693.622	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 111K	0.0	0.00	3316.7	3838.95	692.332	2	1044	0.01240	0.00	0.00	0	124	0	4.40	0.00
1 112K	39.8	4.64	3356.5	3820.46	693.816	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 113K	0.0	0.00	3356.5	3820.46	692.320	2	1121	0.01110	0.00	0.00	0	124	0	4.20	0.00
1 114K	40.0	4.44	3396.5	3784.19	693.740	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 115K	0.0	0.00	3396.5	3784.19	692.332	2	960	0.00950	0.00	0.00	0	124	0	4.00	0.00
1 116K	39.8	4.82	3436.3	3750.76	693.874	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.03
1 117K	0.0	0.00	3436.3	3750.76	692.541	2	919	0.00990	0.00	0.00	0	124	0	3.80	0.00
1 118K	39.8	5.74	3476.1	3731.78	694.378	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.07
1 119K	0.0	0.00	3476.1	3731.78	693.539	2	835	0.01980	0.00	0.00	0	134	0	3.60	0.00
1 120K	22.4	3.47	3498.5	3716.96	694.647	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.09
1 121K	0.0	0.00	3498.5	3716.96	692.982	2	1042	0.00770	0.00	0.00	0	134	0	3.50	0.00
1 122R	21.6	4.91	21.6	4.91	1.069	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1 123R	0.0	0.00	21.6	4.91	1.068	2	1940	0.01230	0.00	0.00	0	134	0	5.40	0.00
1 124R	32.5	6.91	54.1	8.48	2.638	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 125R	0.0	0.00	54.1	8.48	2.636	2	1189	0.01320	0.00	0.00	0	134	0	5.30	0.00
1 126R	23.9	4.74	78.0	11.43	3.762	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 127R	0.0	0.00	78.0	11.43	3.758	2	803	0.01280	0.00	0.00	0	134	0	5.20	0.00
1 128R	28.8	6.13	106.8	15.28	5.149	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 129R	0.0	0.00	106.8	15.28	5.137	2	966	0.01040	0.00	0.00	0	134	0	5.30	0.00
1 130R	29.3	5.02	136.1	18.15	6.452	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 131R	0.0	0.00	136.1	18.15	6.437	2	795	0.00960	0.00	0.00	0	134	0	5.00	0.00
1 132R	27.5	4.35	163.6	20.48	7.641	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1 133R	0.0	0.00	163.6	20.48	7.623	2	759	0.01050	0.00	0.00	0	134	0	4.90	0.00
1 134R	27.3	3.97	190.9	22.37	8.790	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1 135R	0.0	0.00	190.9	22.37	8.768	2	740	0.00980	0.00	0.00	0	134	0	4.80	0.00
1 136R	29.4	3.92	220.3	24.00	9.995	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1 137R	0.0	0.00	220.3	24.00	9.964	2	849	0.01000	0.00	0.00	0	134	0	4.70	0.00
1 138R	36.9	4.71	257.2	25.75	11.471	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1 139R	0.0	0.00	257.2	25.75	11.430	2	960	0.01020	0.00	0.00	0	134	0	4.60	0.00
1 140R	27.6	3.37	284.8	26.55	12.508	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1 141R	0.0	0.00	284.8	26.55	12.477	2	705	0.01250	0.00	0.00	0	134	0	4.40	0.00
1 142R	36.0	4.20	320.8	28.26	13.819	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1 143R	0.0	0.00	320.8	28.26	13.766	2	966	0.01040	0.00	0.00	0	134	0	4.20	0.00
1 144R	39.6	4.29	360.4	29.65	15.138	0	0	0.00000	0.00	0.00	0	134	30	3.90	0.01
1 145R	0.0	0.00	360.4	29.65	15.067	2	1078	0.00940	0.00	0.00	0	134	0	3.90	0.00
1 146R	27.4	2.74	387.8	30.04	15.942	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 147R	0.0	0.00	387.8	30.04	15.902	2	693	0.01440	0.00	0.00	0	134	0	3.60	0.00
1 148R	27.6	4.19	415.4	31.47	17.242	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.08
1 149R	0.0	0.00	415.4	31.47	17.142	2	1266	0.00970	0.00	0.00	0	134	0	3.60	0.00
1 150R	20.7	3.35	436.1	31.99	18.214	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1 151R	0.0	0.00	436.1	31.99	18.091	2	1379	0.00960	0.00	0.00	0	134	0	3.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1188 QK  3680.13 QKR  3710.67 QR    30.54       1  152R  TR 1206 QR    31.91 QR     0.00 Q'K  1985.23 Q      1.#R
*                                   1  152KR TKR 1188 QKR  3710.67 QK  3680.13 QR    30.54
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	31.91	3934.6	3710.67	709.208	2	1212	0.00830	0.00	0.00	0	134	0	3.50	0.00
1 153K	38.8	5.56	3973.4	3671.29	710.986	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.08
1 154K	0.0	0.00	3973.4	3671.29	707.864	2	2066	0.00970	0.00	0.00	0	134	0	3.40	0.00
1 155K	27.3	3.98	4000.7	3565.00	709.137	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.09
1 156K	0.0	0.00	4000.7	3565.00	706.400	2	1710	0.00880	0.00	0.00	0	134	0	3.30	0.00
1 157K	22.1	3.27	4022.8	3499.41	707.447	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1 158K	0.0	0.00	4022.8	3499.41	704.687	2	1697	0.00870	0.00	0.00	0	134	0	3.20	0.00
1 159S	39.3	3.60	39.3	3.60	1.151	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 160S	0.0	0.00	39.3	3.60	1.149	2	2302	0.01100	0.00	0.00	0	134	0	3.30	0.00
1 161S	36.7	3.26	76.0	5.34	2.192	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 162S	0.0	0.00	76.0	5.34	2.180	2	2012	0.01210	0.00	0.00	0	134	0	3.20	0.00
1 163T	16.1	1.52	16.1	1.52	0.486	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 164T	0.0	0.00	16.1	1.52	0.484	2	1839	0.00880	0.00	0.00	0	134	0	3.40	0.00
1 165T	28.5	2.69	44.6	3.37	1.345	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 166T	0.0	0.00	44.6	3.37	1.344	2	887	0.01190	0.00	0.00	0	134	0	3.40	0.00
1 167T	38.0	3.38	82.6	6.35	2.423	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 168T	0.0	0.00	82.6	6.35	2.421	2	1078	0.00880	0.00	0.00	0	134	0	3.20	0.00
1 169T	39.8	3.54	122.4	8.92	3.552	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 170T	0.0	0.00	122.4	8.92	3.540	2	1337	0.01200	0.00	0.00	0	134	0	3.20	0.00
1 171T	29.2	2.59	151.6	10.23	4.369	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 172T	0.0	0.00	151.6	10.23	4.335	2	1813	0.00980	0.00	0.00	0	134	0	3.20	0.00
1 173KS	76.0	4.98	4098.8	3442.52	706.866	0	0	0.00000	0.00	0.00	0	134	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1200 QK 3442.52 QKT 3451.88 QT 9.35 1 174T TT 1193 QT 9.57
QT7315219559729195000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000.00 QHK 1794.25 Q 1.#R
* 1 174KT TKT 1200 QKT 3451.88 QK 3442.52 QT 9.35
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	9.57	4250.4	3451.88	709.437	2	1115	0.00920	0.00	0.00	0	134	0	3.20	0.00
1 175K	28.5	2.53	4278.9	3432.67	710.247	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 176K	0.0	0.00	4278.9	3432.67	707.054	2	1834	0.00810	0.00	0.00	0	134	0	3.20	0.00
1 177U	29.4	2.61	29.4	2.61	0.835	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 178U	29.1	2.58	58.5	5.20	1.662	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 179U	0.0	0.00	58.5	5.20	1.649	2	3079	0.00820	0.00	0.00	0	134	0	3.20	0.00
1 180U	31.8	3.87	90.3	6.08	2.887	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1 181U	0.0	0.00	90.3	6.08	2.861	2	2207	0.01120	0.00	0.00	0	134	0	3.20	0.00
1 182U	21.3	2.17	111.6	6.83	3.555	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1 183U	0.0	0.00	111.6	6.83	3.498	2	2448	0.00810	0.00	0.00	0	134	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1206 QK 3362.79 QKU 3368.98 QU 6.18 1 184U TU 1209 QU 6.19 QU 0.00 QÈK 3231.70 Q 1.#R
* 1 184KU TKU 1206 QKU 3368.98 QK 3362.79 QU 6.18
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	6.19	4390.5	3368.98	710.544	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinK-burn.lac   Run date: Mon Sep 21 15:50:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1	4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1	5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1	6B	39.7	9.68	39.7	9.68	2.215	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1	7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1	9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1	10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1	11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1	12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1	13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1	14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1	15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1	16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1	17B	39.1	10.15	78.8	19.83	4.472	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.09
1	18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1	19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1	20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1	21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1	22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

```
**************************************************************************************************************************************
*                                                                              CONFLUENCE Q'S                                                      *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL891498337054180890000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q      1.#R
*                                                         1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
**************************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1	24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1	25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1	26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1	27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1	28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00
1	30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1	31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1   52M  TM 1160 QM  3496.79 QMN  5161.65 QN  1664.86       1   52N  TN 1164 QN  2012.00 QN     0.00 QúM  2356.97 Q      1.#R
*                                   1   52MN TMN 1161 QMN  5281.20 QM  3429.58 QN  1851.61
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	54.01	8.150	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

```
*                                                    CONFLUENCE Q'S                                                    *
* 1   59M  TM 1164 QM  5084.19 QMO  5089.91 QO     5.72       1   59O  TO 1189 QO    16.56 QO    -0.00 QMM   796.60 Q      1.#R
*                                   1   59MO TMO 1164 QMO  5089.91 QM  5084.19 QO     5.72
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857793363967650000000000000000000000000000000.00 QpK 369.02 Q 1.#R
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620894791893312.00 QMP 217.81 Q
1.#R
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

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*****************************************************************************************************************************
*                                                CONFLUENCE Q'S                                                            *
* 1  105K  TK 1175 QK  5134.47 QKP  5220.22 QP    85.76      1  105P  TP 1200 QP   420.09
QP29808791082418452000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000.00 Q□K  1446.68 Q      1.#R
*                                        1  105KP TKP 1175 QKP  5220.22 QK  5134.47 QP    85.76
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	8.31	4118.6	5086.13	808.269	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.03
1 117K	0.0	0.00	4118.6	5086.13	806.853	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	10.73	4158.4	5055.51	809.130	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.07
1 119K	0.0	0.00	4158.4	5055.51	808.242	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	6.06	4180.8	5042.20	809.580	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.09
1 121K	0.0	0.00	4180.8	5042.20	807.750	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	7.61	415.4	77.88	25.128	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.08
1 149R	0.0	0.00	415.4	77.88	25.017	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	5.72	436.1	78.52	26.298	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1 151R	0.0	0.00	436.1	78.52	26.161	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

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*****************************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                         *
* 1  152K  TK 1186 QK  5003.38 QKR  5072.18 QR    68.80       1  152R  TR 1203 QR    78.04 QR    -0.00 Q¼K  2683.33 Q      1.#R
*                                        1  152KR TKR 1186 QKR  5072.18 QK  5003.38 QR    68.80
*****************************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	78.04	4616.9	5072.18	831.874	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	9.85	4655.7	5028.80	834.031	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.08
1 154K	0.0	0.00	4655.7	5028.80	830.715	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	6.79	4683.0	4908.21	832.236	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.09
1 156K	0.0	0.00	4683.0	4908.21	829.367	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	5.39	4705.1	4834.35	830.600	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 158K	0.0	0.00	4705.1	4834.35	827.698	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.537	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 161S	36.7	7.13	76.0	11.36	2.921	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.36	2.908	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.43	0.654	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.813	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.812	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.65	3.245	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.65	3.242	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.07	4.742	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.07	4.730	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.81	5.831	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.81	5.793	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.52	4781.1	4770.56	830.606	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  174K  TK 1197 QK  4770.56 QKT  4789.78 QT    19.22       1  174T  TT 1189 QT    20.39 QT     0.00 Q~K  2035.36 Q      1.#R
*                                        1  174KT TKT 1197 QKT  4789.78 QK  4770.56 QT    19.22
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.39	4932.7	4789.78	834.467	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4758.39	835.542	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4758.39	832.138	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.36	2.191	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	7.05	90.3	11.55	3.709	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1 181U	0.0	0.00	90.3	11.55	3.680	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.37	111.6	11.98	4.569	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1 183U	0.0	0.00	111.6	11.98	4.507	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  184K  TK 1202 QK  4674.09 QKU  4685.00 QU    10.91       1  184U  TU 1208 QU    11.04 QU-
1016835862473463900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q‰K  4106.50 Q      1.#R
*                                        1  184KU TKU 1202 QKU  4685.00 QK  4674.09 QU    10.91
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	11.04	5072.8	4685.00	836.637	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinK-burn.lac Run date: Mon Sep 21 15:50:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1 2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1 4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1 5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1 6B	39.7	9.68	39.7	9.68	2.215	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1 7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1 9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1 10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1 11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1 12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1 13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1 14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1 15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1 17B	39.1	10.15	78.8	19.83	4.472	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.09
1 18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1 19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1 20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1 21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1 22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL8914983370541808900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q      1.#R
*                                  1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1 24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1 25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1 26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1 27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1 28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1 29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52M  TM 1160 QM  3496.79 QMN  5161.65 QN  1664.86       1   52N  TN 1164 QN  2012.00 QN     0.00 QúM  2356.97 Q      1.#R
*                                   1   52MN TMN 1161 QMN  5281.20 QM  3429.58 QN  1851.61
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	54.01	8.150	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   59M  TM 1164 QM  5084.19 QMO  5089.91 QO     5.72       1   59O  TO 1189 QO    16.56 QO    -0.00 QMM   796.60 Q      1.#R
*                                   1   59MO TMO 1164 QMO  5089.91 QM  5084.19 QO     5.72
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857793363967650000000000000000000000000000000.00 QpK 369.02 Q 1.#R
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620894791893312.00 QMP 217.81 Q
1.#R
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

****
*   CONFLUENCE Q'S   *
* 1 105K TK 1175 QK 5134.47 QKP 5220.22 QP   85.76   1 105P TP 1200 QP   420.09
QP29808791082418452000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000.00 Q□K 1446.68 Q   1.#R
*   1 105KP TKP 1175 QKP 5220.22 QK 5134.47 QP   85.76
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	8.31	4118.6	5086.13	808.269	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.03
1 117K	0.0	0.00	4118.6	5086.13	806.853	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	10.73	4158.4	5055.51	809.130	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.07
1 119K	0.0	0.00	4158.4	5055.51	808.242	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	6.06	4180.8	5042.20	809.580	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.09
1 121K	0.0	0.00	4180.8	5042.20	807.750	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	7.61	415.4	77.88	25.128	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.08
1 149R	0.0	0.00	415.4	77.88	25.017	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	5.72	436.1	78.52	26.298	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1 151R	0.0	0.00	436.1	78.52	26.161	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1186 QK  5003.38 QKR  5072.18 QR    68.80       1  152R  TR 1203 QR    78.04 QR    -0.00 Q¼K  2683.33 Q      1.#R
*                                   1  152KR TKR 1186 QKR  5072.18 QK  5003.38 QR    68.80
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	78.04	4616.9	5072.18	831.874	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	9.85	4655.7	5028.80	834.031	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.08
1 154K	0.0	0.00	4655.7	5028.80	830.715	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	6.79	4683.0	4908.21	832.236	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.09
1 156K	0.0	0.00	4683.0	4908.21	829.367	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	5.39	4705.1	4834.35	830.600	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 158K	0.0	0.00	4705.1	4834.35	827.698	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.537	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 161S	36.7	7.13	76.0	11.36	2.921	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.36	2.908	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.43	0.654	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.813	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.812	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.65	3.245	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.65	3.242	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.07	4.742	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.07	4.730	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.81	5.831	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.81	5.793	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.52	4781.1	4770.56	830.606	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  174K  TK 1197 QK  4770.56 QKT  4789.78 QT    19.22       1  174T  TT 1189 QT    20.39 QT     0.00 Q~K  2035.36 Q      1.#R
*                                        1  174KT TKT 1197 QKT  4789.78 QK  4770.56 QT    19.22
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.39	4932.7	4789.78	834.467	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4758.39	835.542	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4758.39	832.138	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.36	2.191	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	7.05	90.3	11.55	3.709	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1 181U	0.0	0.00	90.3	11.55	3.680	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.37	111.6	11.98	4.569	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1 183U	0.0	0.00	111.6	11.98	4.507	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  184K  TK 1202 QK  4674.09 QKU  4685.00 QU    10.91       1  184U  TU 1208 QU    11.04 QU-
1016835862473463900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q‰K  4106.50 Q      1.#R
*                                        1  184KU TKU 1202 QKU  4685.00 QK  4674.09 QU    10.91
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	11.04	5072.8	4685.00	836.637	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 4685.00 x 1.025 = 4802.13 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinV.lac Run date: Mon Sep 21 14:37:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	3.21	23.8	3.21	1.027	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.08
1	2V	0.0	0.00	23.8	3.21	1.026	2	1412	0.01030	0.00	0.00	0	134	0	3.20	0.00
1	3V	39.4	4.02	63.2	6.32	2.311	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1	4V	0.0	0.00	63.2	6.32	2.309	2	1046	0.01150	0.00	0.00	0	134	0	3.20	0.00
1	5V	39.9	4.86	103.1	10.13	3.863	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	6V	0.0	0.00	103.1	10.13	3.858	2	892	0.01000	0.00	0.00	0	134	0	3.20	0.00
1	7V	40.0	4.87	143.1	13.89	5.415	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	8V	0.0	0.00	143.1	13.89	5.403	2	964	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinV-burn.lac Run date: Mon Sep 21 14:32:05 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	5.54	23.8	5.54	1.232	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.08
1	2V	0.0	0.00	23.8	5.54	1.232	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	8.08	63.2	11.71	2.876	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4V	0.0	0.00	63.2	11.71	2.874	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	8.85	103.1	18.56	4.779	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	6V	0.0	0.00	103.1	18.56	4.774	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	8.87	143.1	25.17	6.684	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	8V	0.0	0.00	143.1	25.17	6.671	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\BasinV-burn.lac Run date: Mon Sep 21 14:32:05 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	5.54	23.8	5.54	1.232	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.08
1	2V	0.0	0.00	23.8	5.54	1.232	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	8.08	63.2	11.71	2.876	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4V	0.0	0.00	63.2	11.71	2.874	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	8.85	103.1	18.56	4.779	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	6V	0.0	0.00	103.1	18.56	4.774	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	8.87	143.1	25.17	6.684	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	8V	0.0	0.00	143.1	25.17	6.671	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 25.17 x 1.025 = 25.80 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\c-delete\untitled.lac Run date: Mon Sep 21 10:56:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1W	24.1	3.48	24.1	3.48	1.113	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1 2B	27.6	2.45	27.6	2.45	0.784	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 2W	0.0	0.00	24.1	3.48	1.111	2	1848	0.01050	0.00	0.00	0	134	0	3.20	0.00
1 3W	22.3	3.10	46.4	5.40	2.101	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 4B	15.1	1.43	42.7	3.88	1.240	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 4W	0.0	0.00	46.4	5.40	2.098	2	1007	0.01070	0.00	0.00	0	134	0	3.40	0.00
1 5W	26.9	3.58	73.3	7.97	3.245	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 6W	0.0	0.00	73.3	7.97	3.236	2	1111	0.00990	0.00	0.00	0	124	0	4.80	0.00
1 7W	24.7	3.15	98.0	10.06	4.244	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 8W	0.0	0.00	98.0	10.06	4.224	2	1118	0.00710	0.00	0.00	0	124	0	4.60	0.00
1 9W	35.1	4.29	133.1	12.33	5.595	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 10W	0.0	0.00	133.1	12.33	5.566	2	1301	0.01000	0.00	0.00	0	124	0	4.40	0.00
1 11W	24.8	3.18	157.9	13.62	6.583	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.02
1 12W	0.0	0.00	157.9	13.62	6.558	2	779	0.00750	0.00	0.00	0	124	0	4.30	0.00
1 13W	36.2	5.47	194.1	16.91	8.308	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.05
1 14W	0.0	0.00	194.1	16.91	8.283	2	915	0.01440	0.00	0.00	0	124	0	4.20	0.00
1 15W	33.0	5.29	227.1	20.64	9.976	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.07
1 16W	0.0	0.00	227.1	20.64	9.951	2	796	0.01390	0.00	0.00	0	124	0	4.00	0.00
1 17W	39.5	6.94	266.6	25.97	12.172	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.10
1 18W	0.0	0.00	266.6	25.97	12.137	2	930	0.01200	0.00	0.00	0	124	0	3.80	0.00
1 19W	32.8	5.46	299.4	29.99	13.885	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 20W	0.0	0.00	299.4	29.99	13.847	2	774	0.00940	0.00	0.00	0	124	0	3.60	0.00
1 21W	35.4	5.90	334.8	34.05	15.733	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 22W	0.0	0.00	334.8	34.05	15.666	2	1066	0.00820	0.00	0.00	0	124	0	3.60	0.00
1 23W	19.1	3.09	353.9	35.12	16.655	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1 24W	0.0	0.00	353.9	35.12	16.581	2	860	0.00630	0.00	0.00	0	134	0	3.50	0.00
1 25W	11.4	1.85	365.3	35.16	17.172	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1 26W	0.0	0.00	365.3	35.16	17.109	2	684	0.00730	0.00	0.00	0	134	0	3.50	0.00
1 27W	22.7	3.57	388.0	35.99	18.251	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1 28W	0.0	0.00	388.0	35.99	18.078	2	1949	0.01030	0.00	0.00	0	134	0	3.40	0.00
1 29X	7.3	1.22	7.3	1.22	0.389	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 30X	0.0	0.00	7.3	1.22	0.387	2	1088	0.00760	0.00	0.00	0	124	0	3.60	0.00
1 31X	23.1	3.74	30.4	4.44	1.583	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1 32X	0.0	0.00	30.4	4.44	1.583	2	882	0.01350	0.00	0.00	0	124	0	3.50	0.00
1 33X	13.0	2.04	43.4	6.18	2.237	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1 34X	0.0	0.00	43.4	6.18	2.236	2	429	0.01290	0.00	0.00	0	124	0	3.40	0.00
1 35X	18.5	2.91	61.9	8.73	3.167	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1 36X	0.0	0.00	61.9	8.73	3.165	2	1115	0.01280	0.00	0.00	0	124	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

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****************************************************************************************************************************
*                                                      CONFLUENCE Q'S                                                      *
* 1   37W  TW 1205 QW    35.28 QWX    40.02 QX     4.74      1   37X  TX 1180 QX     8.52 QX-56969.78 QxW    27.57 Q      1.#R
*                                        1   37WX TWX 1200 QWX    40.43 QW    34.89 QX     5.54
****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 37WX	61.9	8.52	449.9	40.43	21.178	2	642	0.00980	0.00	0.00	0	124	0	3.40	0.00
1 38W	19.2	2.41	469.1	40.93	21.949	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.06
1 39W	0.0	0.00	469.1	40.93	21.786	2	1430	0.00960	0.00	0.00	0	124	0	3.30	0.00
1 40Y	6.4	1.07	6.4	1.07	0.341	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 41Y	0.0	0.00	6.4	1.07	0.310	2	970	0.00890	0.00	0.00	0	124	0	3.60	0.00
1 42Y	11.2	1.87	17.6	2.62	0.907	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 43Y	0.0	0.00	17.6	2.62	0.906	2	831	0.01140	0.00	0.00	0	124	0	3.60	0.00
1 44Y	15.6	2.53	33.2	4.72	1.714	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1 45Y	0.0	0.00	33.2	4.72	1.713	2	883	0.01070	0.00	0.00	0	124	0	3.50	0.00
1 46Y	9.5	1.49	42.7	5.79	2.191	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1 47Y	0.0	0.00	42.7	5.79	2.190	2	390	0.01680	0.00	0.00	0	124	0	3.40	0.00
1 48Y	13.1	2.00	55.8	7.39	2.830	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 49Y	0.0	0.00	55.8	7.39	2.830	2	658	0.01670	0.00	0.00	0	124	0	3.30	0.00
1 50Y	24.4	2.90	80.2	9.64	3.757	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.05
1 51Y	0.0	0.00	80.2	9.64	3.746	2	1416	0.01050	0.00	0.00	0	124	0	3.30	0.00

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****************************************************************************************************************************
*                                                      CONFLUENCE Q'S                                                      *
* 1   52W  TW 1212 QW    40.67 QWY    46.65 QY     5.97      1   52Y  TY 1186 QY     9.31
QY636533465208185580000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000.00 QPW    33.95 Q      1.#R
*                                        1   52WY TWY 1206 QWY    47.02 QW    40.24 QY     6.77
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52WY	80.2	9.31	549.3	47.02	25.292	2	1623	0.00800	0.00	0.00	0	124	0	3.30	0.00
1 53Z	12.8	2.37	12.8	2.37	0.758	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.10
1 54Z	0.0	0.00	12.8	2.37	0.757	2	1273	0.01320	0.00	0.00	0	124	0	4.00	0.00
1 55Z	24.9	4.49	37.7	6.23	2.194	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.10
1 56Z	0.0	0.00	37.7	6.23	2.193	2	1086	0.01170	0.00	0.00	0	124	0	3.90	0.00
1 57Z	25.8	4.42	63.5	9.77	3.605	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.10
1 58Z	0.0	0.00	63.5	9.77	3.603	2	863	0.01350	0.00	0.00	0	124	0	3.70	0.00
1 59Z	30.1	5.01	93.6	13.79	5.206	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1 60Z	0.0	0.00	93.6	13.79	5.199	2	922	0.01230	0.00	0.00	0	124	0	3.60	0.00
1 61Z	28.0	4.53	121.6	17.15	6.649	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1 62Z	0.0	0.00	121.6	17.15	6.634	2	907	0.01020	0.00	0.00	0	124	0	3.50	0.00
1 63Z	32.7	5.29	154.3	20.69	8.328	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1 64Z	0.0	0.00	154.3	20.69	8.303	2	1048	0.01130	0.00	0.00	0	124	0	3.50	0.00
1 65Z	25.7	3.14	180.0	22.24	9.309	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.05

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 66Z	0.0	0.00	180.0	22.24	9.279	2	1003	0.01240	0.00	0.00	0	134	0	3.40	0.00
1 67Z	9.1	0.86	189.1	22.21	9.554	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 68Z	0.0	0.00	189.1	22.21	9.540	2	399	0.01470	0.00	0.00	0	134	0	3.40	0.00
1 69Z	24.4	2.24	213.5	22.89	10.255	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 70Z	0.0	0.00	213.5	22.89	10.213	2	1072	0.01280	0.00	0.00	0	134	0	3.30	0.00
1 71Z	27.0	2.40	240.5	23.39	10.981	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 72Z	0.0	0.00	240.5	23.39	10.906	2	1351	0.00920	0.00	0.00	0	134	0	3.20	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                                 *
* 1   73W  TW 1217 QW    46.70 QWZ    67.86 QZ    21.16       1   73Z  TZ 1203 QZ    23.11
QZ37991454621349289000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q
W    44.74 Q      1.#R
*                                        1   73WZ TWZ 1210 QWZ    68.76 QW    46.23 QZ    22.53
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	23.11	789.8	68.76	36.197	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinW-burn.lac Run date: Mon Sep 21 11:41:08 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.99	157.9	25.87	8.485	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.02
1	12W	0.0	0.00	157.9	25.87	8.457	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	9.27	194.1	30.19	10.542	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.05
1	14W	0.0	0.00	194.1	30.19	10.516	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	8.37	227.1	35.13	12.480	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.07
1	16W	0.0	0.00	227.1	35.13	12.453	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	10.16	266.6	41.92	14.958	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1	18W	0.0	0.00	266.6	41.92	14.921	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	7.86	299.4	46.97	16.879	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	20W	0.0	0.00	299.4	46.97	16.839	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	8.48	334.8	52.12	18.953	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	22W	0.0	0.00	334.8	52.12	18.882	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	5.28	353.9	53.58	20.064	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	24W	0.0	0.00	353.9	53.58	19.986	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	3.15	365.3	53.49	20.692	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	26W	0.0	0.00	365.3	53.49	20.627	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	6.02	388.0	54.49	21.985	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	28W	0.0	0.00	388.0	54.49	21.803	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	2.10	7.3	2.10	0.467	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1	30X	0.0	0.00	7.3	2.10	0.465	2	1088	0.00760	0.00	0.00	0	336	0	3.60	0.00
1	31X	23.1	5.33	30.4	6.48	1.802	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	32X	0.0	0.00	30.4	6.48	1.802	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.89	43.4	8.83	2.531	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	34X	0.0	0.00	43.4	8.83	2.530	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	4.11	61.9	12.35	3.567	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	36X	0.0	0.00	61.9	12.35	3.565	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

****
* CONFLUENCE Q'S *
* 1   37W TW 1202 QW   53.42 QWX   60.00 QX   6.58   1   37X TX 1179 QX   12.05 QX-
72044471353372774000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000.00 QÎW   39.86 Q   1.#R
*   1   37WX TWX 1198 QWX   60.46 QW   52.85 QX   7.61
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 37WX	61.9	12.05	449.9	60.46	25.298	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1 38W	19.2	3.64	469.1	61.01	26.178	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.06
1 39W	0.0	0.00	469.1	61.01	26.007	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1 40Y	6.4	1.53	6.4	1.53	0.382	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 41Y	0.0	0.00	6.4	1.53	0.365	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1 42Y	11.2	2.68	17.6	3.71	1.034	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 43Y	0.0	0.00	17.6	3.71	1.032	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1 44Y	15.6	3.60	33.2	6.65	1.935	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 45Y	0.0	0.00	33.2	6.65	1.935	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1 46Y	9.5	2.11	42.7	8.10	2.467	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 47Y	0.0	0.00	42.7	8.10	2.466	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1 48Y	13.1	2.80	55.8	10.28	3.177	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 49Y	0.0	0.00	55.8	10.28	3.177	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1 50Y	24.4	4.48	80.2	13.64	4.243	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.05
1 51Y	0.0	0.00	80.2	13.64	4.231	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

****
* CONFLUENCE Q'S *
* 1   52W TW 1209 QW   60.58 QWY   68.53 QY   7.95   1   52Y TY 1184 QY   13.15 QY   0.00 QzW   47.46 Q   1.#R
*   1   52WY TWY 1205 QWY   68.93 QW   60.13 QY   8.80
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52WY	80.2	13.15	549.3	68.93	29.985	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1 53Z	12.8	3.52	12.8	3.52	0.859	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 54Z	0.0	0.00	12.8	3.52	0.858	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1 55Z	24.9	6.63	37.7	9.09	2.484	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.10
1 56Z	0.0	0.00	37.7	9.09	2.482	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1 57Z	25.8	6.41	63.5	14.10	4.071	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 58Z	0.0	0.00	63.5	14.10	4.069	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1 59Z	30.1	7.21	93.6	19.72	5.866	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 60Z	0.0	0.00	93.6	19.72	5.858	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1 61Z	28.0	6.47	121.6	24.34	7.479	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 62Z	0.0	0.00	121.6	24.34	7.464	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1 63Z	32.7	7.55	154.3	29.17	9.356	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 64Z	0.0	0.00	154.3	29.17	9.331	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 65Z	25.7	6.08	180.0	32.05	10.596	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.05
1 66Z	0.0	0.00	180.0	32.05	10.565	2	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00
1 67Z	9.1	1.94	189.1	32.23	10.935	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 68Z	0.0	0.00	189.1	32.23	10.922	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00
1 69Z	24.4	4.97	213.5	34.19	11.878	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 70Z	0.0	0.00	213.5	34.19	11.835	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00
1 71Z	27.0	5.24	240.5	35.16	12.853	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 72Z	0.0	0.00	240.5	35.16	12.776	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1   73W  TW 1214 QW    68.40 QWZ    97.75 QZ    29.35       1   73Z  TZ 1193 QZ    34.46 QZ     0.00 QKW    58.90 Q      1.#R
*                                        1   73WZ TWZ 1207 QWZ    99.35 QW    67.25 QZ    32.10
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	34.46	789.8	99.35	42.760	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRATAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinW-burn.lac Run date: Mon Sep 21 11:41:08 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.99	157.9	25.87	8.485	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.02
1	12W	0.0	0.00	157.9	25.87	8.457	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	9.27	194.1	30.19	10.542	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.05
1	14W	0.0	0.00	194.1	30.19	10.516	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	8.37	227.1	35.13	12.480	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.07
1	16W	0.0	0.00	227.1	35.13	12.453	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	10.16	266.6	41.92	14.958	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1	18W	0.0	0.00	266.6	41.92	14.921	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	7.86	299.4	46.97	16.879	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	20W	0.0	0.00	299.4	46.97	16.839	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	8.48	334.8	52.12	18.953	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	22W	0.0	0.00	334.8	52.12	18.882	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	5.28	353.9	53.58	20.064	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	24W	0.0	0.00	353.9	53.58	19.986	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	3.15	365.3	53.49	20.692	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	26W	0.0	0.00	365.3	53.49	20.627	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	6.02	388.0	54.49	21.985	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	28W	0.0	0.00	388.0	54.49	21.803	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	2.10	7.3	2.10	0.467	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1	30X	0.0	0.00	7.3	2.10	0.465	2	1088	0.00760	0.00	0.00	0	336	0	3.60	0.00
1	31X	23.1	5.33	30.4	6.48	1.802	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	32X	0.0	0.00	30.4	6.48	1.802	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.89	43.4	8.83	2.531	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	34X	0.0	0.00	43.4	8.83	2.530	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	4.11	61.9	12.35	3.567	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	36X	0.0	0.00	61.9	12.35	3.565	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   37W  TW 1202 QW    53.42 QWX    60.00 QX     6.58       1   37X  TX 1179 QX    12.05 QX-
720444713533727740000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000.00 QÎW    39.86 Q      1.#R
*                                          1   37WX TWX 1198 QWX    60.46 QW    52.85 QX     7.61
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 37WX	61.9	12.05	449.9	60.46	25.298	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1 38W	19.2	3.64	469.1	61.01	26.178	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.06
1 39W	0.0	0.00	469.1	61.01	26.007	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1 40Y	6.4	1.53	6.4	1.53	0.382	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 41Y	0.0	0.00	6.4	1.53	0.365	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1 42Y	11.2	2.68	17.6	3.71	1.034	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 43Y	0.0	0.00	17.6	3.71	1.032	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1 44Y	15.6	3.60	33.2	6.65	1.935	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 45Y	0.0	0.00	33.2	6.65	1.935	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1 46Y	9.5	2.11	42.7	8.10	2.467	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 47Y	0.0	0.00	42.7	8.10	2.466	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1 48Y	13.1	2.80	55.8	10.28	3.177	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 49Y	0.0	0.00	55.8	10.28	3.177	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1 50Y	24.4	4.48	80.2	13.64	4.243	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.05
1 51Y	0.0	0.00	80.2	13.64	4.231	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52W  TW 1209 QW    60.58 QWY    68.53 QY     7.95       1   52Y  TY 1184 QY    13.15 QY     0.00 QzW    47.46 Q      1.#R
*                                          1   52WY TWY 1205 QWY    68.93 QW    60.13 QY     8.80
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52WY	80.2	13.15	549.3	68.93	29.985	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1 53Z	12.8	3.52	12.8	3.52	0.859	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 54Z	0.0	0.00	12.8	3.52	0.858	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1 55Z	24.9	6.63	37.7	9.09	2.484	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.10
1 56Z	0.0	0.00	37.7	9.09	2.482	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1 57Z	25.8	6.41	63.5	14.10	4.071	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 58Z	0.0	0.00	63.5	14.10	4.069	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1 59Z	30.1	7.21	93.6	19.72	5.866	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 60Z	0.0	0.00	93.6	19.72	5.858	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1 61Z	28.0	6.47	121.6	24.34	7.479	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 62Z	0.0	0.00	121.6	24.34	7.464	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1 63Z	32.7	7.55	154.3	29.17	9.356	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 64Z	0.0	0.00	154.3	29.17	9.331	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 65Z	25.7	6.08	180.0	32.05	10.596	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.05
1 66Z	0.0	0.00	180.0	32.05	10.565	2	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00
1 67Z	9.1	1.94	189.1	32.23	10.935	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 68Z	0.0	0.00	189.1	32.23	10.922	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00
1 69Z	24.4	4.97	213.5	34.19	11.878	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 70Z	0.0	0.00	213.5	34.19	11.835	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00
1 71Z	27.0	5.24	240.5	35.16	12.853	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 72Z	0.0	0.00	240.5	35.16	12.776	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   73W  TW 1214 QW    68.40 QWZ    97.75 QZ    29.35       1   73Z  TZ 1193 QZ    34.46 QZ     0.00 QKW    58.90 Q      1.#R
*                                        1   73WZ TWZ 1207 QWZ    99.35 QW    67.25 QZ    32.10
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	34.46	789.8	99.35	42.760	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 99.35 x 1.025 = 101.83 cfs

Normal End of MODRATAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100A.lac Run date: Fri Sep 18 17:18:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.52	8.2	1.52	0.485	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.10
1 102A	0.0	0.00	8.2	1.52	0.484	2	1080	0.01170	0.00	0.00	0	124	0	4.00	0.00
1 103A	17.4	3.06	25.6	4.16	1.462	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.10
1 104A	0.0	0.00	25.6	4.16	1.462	2	846	0.01260	0.00	0.00	0	124	0	3.80	0.00
1 105A	18.4	3.15	44.0	6.84	2.469	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.10
1 106A	0.0	0.00	44.0	6.84	2.469	2	782	0.01420	0.00	0.00	0	124	0	3.70	0.00
1 107A	24.3	4.58	68.3	10.34	3.765	0	0	0.00000	0.00	0.00	0	124	23	3.60	0.10
1 108A	0.0	0.00	68.3	10.34	3.763	2	822	0.01180	0.00	0.00	0	124	0	3.60	0.00
1 109A	21.0	4.14	89.3	13.12	4.883	0	0	0.00000	0.00	0.00	0	124	21	3.60	0.10
1 110A	0.0	0.00	89.3	13.12	4.878	2	717	0.01020	0.00	0.00	0	124	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100A-burn.lac Run date: Fri Sep 18 17:27:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	2.26	8.2	2.26	0.551	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 102A	0.0	0.00	8.2	2.26	0.549	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	4.47	25.6	6.04	1.652	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1 104A	0.0	0.00	25.6	6.04	1.652	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	4.57	44.0	9.85	2.785	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 106A	0.0	0.00	44.0	9.85	2.784	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	6.51	68.3	14.82	4.240	0	0	0.00000	0.00	0.00	0	332	25	3.60	0.10
1 108A	0.0	0.00	68.3	14.82	4.238	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	5.93	89.3	18.76	5.497	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.10
1 110A	0.0	0.00	89.3	18.76	5.491	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100A-burn.lac Run date: Fri Sep 18 17:27:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	2.26	8.2	2.26	0.551	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 102A	0.0	0.00	8.2	2.26	0.549	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	4.47	25.6	6.04	1.652	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1 104A	0.0	0.00	25.6	6.04	1.652	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	4.57	44.0	9.85	2.785	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 106A	0.0	0.00	44.0	9.85	2.784	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	6.51	68.3	14.82	4.240	0	0	0.00000	0.00	0.00	0	332	25	3.60	0.10
1 108A	0.0	0.00	68.3	14.82	4.238	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	5.93	89.3	18.76	5.497	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.10
1 110A	0.0	0.00	89.3	18.76	5.491	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Qbb = 18.76 x 1.025 = 19.23 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100B.lac Run date: Wed Sep 23 11:16:28 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	4.98	30.0	4.98	1.495	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 14B	22.1	6.05	52.1	11.03	2.671	0	0	0.00000	0.00	0.00	0	134	30	5.70	0.01
1 20B	38.7	7.22	90.8	18.24	4.678	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 21B	11.2	3.42	102.0	21.66	5.291	0	0	0.00000	0.00	0.00	0	134	29	5.80	0.01
1 28B	24.5	10.21	126.5	31.86	6.779	0	0	0.00000	0.00	0.00	0	134	27	6.20	0.01
1 29B	7.6	1.75	134.1	33.61	7.206	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1 35B	15.5	4.11	149.6	37.72	8.129	0	0	0.00000	0.00	0.00	0	124	30	6.50	0.01
1 36B	29.0	8.05	178.6	45.78	9.889	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 100B	67.1	239.25	245.7	279.92	17.830	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	279.92	17.832	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	14.78	271.7	290.60	19.559	0	0	0.00000	0.00	0.00	0	124	18	6.80	0.01
1 103B	0.0	0.00	271.7	290.60	19.554	2	1058	0.04570	0.00	0.00	0	124	0	6.80	0.00
1 104B	24.8	6.89	296.5	284.99	21.059	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 105B	0.0	0.00	296.5	284.99	21.048	2	1470	0.02950	0.00	0.00	0	124	0	6.60	0.00
1 106B	18.1	5.05	314.6	258.82	22.113	0	0	0.00000	0.00	0.00	0	124	28	6.40	0.01
1 107B	0.0	0.00	314.6	258.82	22.104	2	959	0.01820	0.00	0.00	0	124	0	6.40	0.00
1 108C	722.0	1504.05	722.0	1504.05	84.639	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	722.0	1504.05	84.694	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	11.52	761.7	1497.79	87.150	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 111C	0.0	0.00	761.7	1497.79	87.133	2	1568	0.03970	0.00	0.00	0	124	0	6.70	0.00
1 112D	37.7	10.94	37.7	10.94	2.333	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 113D	0.0	0.00	37.7	10.94	2.333	2	2150	0.02780	0.00	0.00	0	124	0	6.70	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  114C  TC 1159 QC  1481.83 QCD  1486.61 QD     4.78       1  114D  TD 1172 QD     9.52 QD   -34.60 QTC   287.37 Q      1.#R
*                                        1  114CD TCD 1159 QCD  1486.61 QC  1481.83 QD     4.78
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	9.52	799.4	1486.61	89.495	2	1532	0.02480	0.00	0.00	0	124	0	6.70	0.00
1 115C	12.0	3.71	811.4	1471.57	90.207	0	0	0.00000	0.00	0.00	0	124	26	6.40	0.01
1 116C	0.0	0.00	811.4	1471.57	90.153	2	949	0.01960	0.00	0.00	0	124	0	6.40	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  117B  TB 1162 QB   239.78 QBC  1697.05 QC  1457.28       1  117C  TC 1162 QC  1457.28 QC     0.00 Q6B   239.78 Q      1.#R
*                                        1  117BC TBC 1162 QBC  1697.05 QB   239.78 QC  1457.28
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	811.4	1457.28	1126.0	1697.05	112.193	2	1210	0.01230	0.00	0.00	0	124	0	6.40	0.00
1 118B	34.1	7.09	1160.1	1666.58	114.033	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 119B	0.0	0.00	1160.1	1666.58	113.900	2	944	0.01350	0.00	0.00	0	124	0	6.00	0.00
1 120E	31.1	8.64	31.1	8.64	1.888	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 121E	0.0	0.00	31.1	8.64	1.888	2	2049	0.03100	0.00	0.00	0	124	0	6.60	0.00
1 122E	18.9	9.08	50.0	13.31	3.068	0	0	0.00000	0.00	0.00	0	124	19	6.50	0.01
1 123E	0.0	0.00	50.0	13.31	3.067	2	866	0.03040	0.00	0.00	0	124	0	6.50	0.00
1 124E	37.4	14.08	87.4	25.89	5.352	0	0	0.00000	0.00	0.00	0	134	30	6.30	0.01
1 125E	0.0	0.00	87.4	25.89	5.343	2	1753	0.01750	0.00	0.00	0	134	0	6.30	0.00
1 126E	21.3	12.60	108.7	28.56	6.661	0	0	0.00000	0.00	0.00	0	134	19	6.10	0.01
1 127E	0.0	0.00	108.7	28.56	6.649	2	919	0.01770	0.00	0.00	0	134	0	6.10	0.00
1 128E	16.6	9.02	125.3	31.53	7.649	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 129E	0.0	0.00	125.3	31.53	7.633	2	904	0.01440	0.00	0.00	0	134	0	6.00	0.00

****
* CONFLUENCE Q'S *
* 1 130B TB 1166 QB 1648.56 QBE 1675.71 QE 27.15 1 130E TE 1172 QE 30.74
QE958174546284801400000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□B 1286.03 Q 1.#R
* 1 130BE TBE 1166 QBE 1675.71 QB 1648.56 QE 27.15
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	30.74	1285.4	1675.71	121.372	2	1100	0.01140	0.00	0.00	0	134	0	6.00	0.00
1 131F	13.6	13.30	13.6	13.30	0.938	0	0	0.00000	0.00	0.00	0	134	13	6.50	0.01
1 132F	0.0	0.00	13.6	13.30	0.939	2	906	0.03180	0.00	0.00	0	134	0	6.50	0.00
1 133F	26.6	15.77	40.2	27.02	2.676	0	0	0.00000	0.00	0.00	0	134	21	6.40	0.01
1 134F	0.0	0.00	40.2	27.02	2.676	2	1224	0.02140	0.00	0.00	0	134	0	6.40	0.00
1 135F	37.2	13.33	77.4	36.45	4.899	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 136F	0.0	0.00	77.4	36.45	4.894	2	1787	0.01630	0.00	0.00	0	134	0	6.20	0.00
1 137F	24.5	13.31	101.9	33.89	6.370	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 138F	0.0	0.00	101.9	33.89	6.362	2	979	0.01940	0.00	0.00	0	134	0	6.00	0.00
1 139F	14.3	8.32	116.2	34.19	7.213	0	0	0.00000	0.00	0.00	0	134	18	5.90	0.01
1 140F	0.0	0.00	116.2	34.19	7.201	2	790	0.01440	0.00	0.00	0	134	0	5.90	0.00

****
* CONFLUENCE Q'S *
* 1 141B TB 1169 QB 1648.31 QBF 1675.98 QF 27.67 1 141F TF 1182 QF 33.81 QF-
5826187658756623800000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
* 1 141BF TBF 1169 QBF 1675.98 QB 1648.31 QF 27.67
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	33.81	1401.6	1675.98	128.314	2	1041	0.00840	0.00	0.00	0	134	0	5.90	0.00
1 142B	27.0	4.22	1428.6	1650.67	129.633	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 143B	0.0	0.00	1428.6	1650.67	129.382	2	872	0.01000	0.00	0.00	0	124	0	5.50	0.00
1 144B	24.7	3.63	1453.3	1635.22	130.544	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 145B	0.0	0.00	1453.3	1635.22	130.221	2	1127	0.01000	0.00	0.00	0	124	0	5.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 146B	26.0	3.68	1479.3	1605.32	131.399	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01
1 147B	0.0	0.00	1479.3	1605.32	131.038	2	1083	0.00870	0.00	0.00	0	124	0	5.10	0.00
1 148B	22.6	3.07	1501.9	1578.62	132.022	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1 149B	0.0	0.00	1501.9	1578.62	131.683	2	872	0.00640	0.00	0.00	0	124	0	4.90	0.00
1 150B	28.5	3.64	1530.4	1552.92	132.847	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 151B	0.0	0.00	1530.4	1552.92	132.357	2	1358	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 152B	23.4	2.86	1553.8	1509.25	133.271	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 153B	0.0	0.00	1553.8	1509.25	132.818	2	1217	0.00940	0.00	0.00	0	124	0	4.40	0.00
1 154B	20.9	2.62	1574.7	1477.33	133.655	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.02
1 155B	0.0	0.00	1574.7	1477.33	133.371	2	807	0.01170	0.00	0.00	0	124	0	4.20	0.00
1 156B	26.1	3.85	1600.8	1467.98	134.602	0	0	0.00000	0.00	0.00	0	124	30	4.10	0.05
1 157B	0.0	0.00	1600.8	1467.98	134.292	2	966	0.01090	0.00	0.00	0	124	0	4.10	0.00
1 158B	26.4	3.80	1627.2	1452.82	135.507	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.05
1 159B	0.0	0.00	1627.2	1452.82	135.186	2	973	0.01030	0.00	0.00	0	124	0	4.00	0.00
1 160B	29.7	4.17	1656.9	1436.07	136.519	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.05
1 161B	0.0	0.00	1656.9	1436.07	136.109	2	1044	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 162B	27.9	4.25	1684.8	1411.11	137.469	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.07
1 163B	0.0	0.00	1684.8	1411.11	137.055	2	1101	0.01000	0.00	0.00	0	124	0	3.80	0.00
1 164B	25.2	2.66	1710.0	1384.56	137.905	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 165B	0.0	0.00	1710.0	1384.56	137.511	2	1034	0.00970	0.00	0.00	0	124	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100B-burn.lac Run date: Mon Sep 21 18:07:38 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.1	239.25	245.7	314.20	21.776	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	314.20	21.778	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.7	328.31	24.045	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.7	328.31	24.033	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.5	327.49	26.077	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.5	327.49	26.070	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.6	305.83	27.507	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.6	305.83	27.501	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34       1  114D  TD 1172 QD    16.18
QD26699728223043327000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Q      1.#R
*                                        1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1161 QB   288.00 QBC  2234.50 QC  1946.50       1  117C  TC 1162 QC  1957.04 QC    -0.00 QÊB   284.85 Q      1.#R
*                                        1  117BC TBC 1162 QBC  2241.90 QB   284.85 QC  1957.04
*****************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1363.0	2241.90	147.248	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.1	2221.50	149.736	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.1	2221.50	149.578	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1  130B  TB 1165 QB  2197.49 QBE  2243.72 QE    46.23       1  130E  TE 1173 QE    54.09 QE    -0.00 Q"B  1432.20 Q      1.#R
*                                   1  130BE TBE 1165 QBE  2243.72 QB  2197.49 QE    46.23
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.4	2243.72	160.257	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1  141B  TB 1167 QB  2213.40 QBF  2263.67 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 QWB  1349.54 Q      1.#R
*                                   1  141BF TBF 1167 QBF  2263.67 QB  2213.40 QF    50.27
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.6	2263.67	170.586	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.6	2240.26	172.351	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.6	2240.26	172.040	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.3	2226.55	173.582	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 145B	0.0	0.00	1690.3	2226.55	173.236	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.3	2198.21	174.783	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1716.3	2198.21	174.396	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.9	2175.18	175.676	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.9	2175.18	175.294	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.4	2152.77	176.787	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.4	2152.77	176.249	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.8	2105.21	177.411	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.8	2105.21	176.921	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.88	1811.7	2070.93	177.957	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.02
1 155B	0.0	0.00	1811.7	2070.93	177.612	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	6.46	1837.8	2055.14	179.073	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.05
1 157B	0.0	0.00	1837.8	2055.14	178.680	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	6.31	1864.2	2034.97	180.117	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.05
1 159B	0.0	0.00	1864.2	2034.97	179.716	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.85	1893.9	2016.93	181.287	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.05
1 161B	0.0	0.00	1893.9	2016.93	180.850	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	6.60	1921.8	1992.05	182.416	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.07
1 163B	0.0	0.00	1921.8	1992.05	181.976	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1947.0	1968.72	183.025	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1947.0	1968.72	182.595	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Basin100B-burn.lac Run date: Mon Sep 21 18:07:38 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.1	239.25	245.7	314.20	21.776	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	314.20	21.778	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.7	328.31	24.045	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.7	328.31	24.033	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.5	327.49	26.077	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.5	327.49	26.070	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.6	305.83	27.507	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.6	305.83	27.501	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34       1  114D  TD 1172 QD    16.18
QD26699728223043327000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Q      1.#R
*                                        1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1161 QB   288.00 QBC  2234.50 QC  1946.50       1  117C  TC 1162 QC  1957.04 QC    -0.00 QÊB   284.85 Q      1.#R
*                                        1  117BC TBC 1162 QBC  2241.90 QB   284.85 QC  1957.04
*****************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1363.0	2241.90	147.248	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.1	2221.50	149.736	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.1	2221.50	149.578	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

```
*                                                    CONFLUENCE Q'S                                                          *
* 1  130B  TB 1165 QB  2197.49 QBE  2243.72 QE    46.23       1  130E  TE 1173 QE    54.09 QE    -0.00 Q"B  1432.20 Q      1.#R
*                                   1  130BE TBE 1165 QBE  2243.72 QB  2197.49 QE    46.23
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.4	2243.72	160.257	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

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*                                                    CONFLUENCE Q'S                                                          *
* 1  141B  TB 1167 QB  2213.40 QBF  2263.67 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 QWB  1349.54 Q      1.#R
*                                   1  141BF TBF 1167 QBF  2263.67 QB  2213.40 QF    50.27
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.6	2263.67	170.586	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.6	2240.26	172.351	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.6	2240.26	172.040	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.3	2226.55	173.582	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 145B	0.0	0.00	1690.3	2226.55	173.236	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.3	2198.21	174.783	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1716.3	2198.21	174.396	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.9	2175.18	175.676	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.9	2175.18	175.294	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.4	2152.77	176.787	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.4	2152.77	176.249	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.8	2105.21	177.411	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.8	2105.21	176.921	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.88	1811.7	2070.93	177.957	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.02
1 155B	0.0	0.00	1811.7	2070.93	177.612	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	6.46	1837.8	2055.14	179.073	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.05
1 157B	0.0	0.00	1837.8	2055.14	178.680	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	6.31	1864.2	2034.97	180.117	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.05
1 159B	0.0	0.00	1864.2	2034.97	179.716	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.85	1893.9	2016.93	181.287	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.05
1 161B	0.0	0.00	1893.9	2016.93	180.850	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	6.60	1921.8	1992.05	182.416	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.07
1 163B	0.0	0.00	1921.8	1992.05	181.976	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1947.0	1968.72	183.025	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1947.0	1968.72	182.595	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Qbb = 1968.72 x 1.025 = 1741.19 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinA.lac Run date: Tue Sep 29 09:47:17 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	4.66	40.0	4.66	1.491	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	2A	0.0	0.00	40.0	4.66	1.487	2	2398	0.00920	0.00	0.00	0	124	0	4.20	0.00
1	3A	39.8	3.30	79.8	6.72	2.824	0	0	0.00000	0.00	0.00	2	124	50	3.80	0.01
1	4A	0.0	0.00	79.8	6.72	2.810	2	1498	0.00970	0.00	0.00	0	124	0	3.80	0.00
1	5A	38.3	3.83	118.1	8.26	4.034	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	6A	0.0	0.00	118.1	8.26	4.012	2	1253	0.00910	0.00	0.00	0	124	0	3.60	0.00
1	7A	32.4	3.15	150.5	10.20	5.019	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	8A	0.0	0.00	150.5	10.20	4.995	2	1114	0.01010	0.00	0.00	0	124	0	3.50	0.00
1	9A	27.7	2.61	178.2	11.60	5.831	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	10A	0.0	0.00	178.2	11.60	5.794	2	1242	0.00870	0.00	0.00	0	124	0	3.40	0.00
1	11A	33.9	4.62	212.1	13.83	7.272	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.07
1	12A	0.0	0.00	212.1	13.17	6.918	2	1469	0.00990	0.00	0.00	0	124	0	3.40	0.00
1	13A	38.9	5.94	251.0	15.47	8.818	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	14A	0.0	0.00	251.0	14.31	8.261	2	1177	0.00870	0.00	0.00	0	134	0	3.30	0.00
1	15A	38.3	5.67	289.3	16.65	10.074	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1	16A	0.0	0.00	289.3	15.68	9.588	2	994	0.01040	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinA-Burned.lac Run date: Tue Sep 29 10:16:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	6.90	212.1	22.50	8.842	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.07
1	12A	0.0	0.00	212.1	21.68	8.493	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	9.90	251.0	24.09	10.742	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	14A	0.0	0.00	251.0	22.90	10.201	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	9.34	289.3	26.06	12.338	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	16A	0.0	0.00	289.3	25.00	11.870	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinA-Burned.lac Run date: Tue Sep 29 10:16:35 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	9.04	40.0	9.04	1.877	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	2A	0.0	0.00	40.0	9.04	1.872	2	2398	0.00920	0.00	0.00	0	332	0	4.20	0.00
1	3A	39.8	7.76	79.8	12.28	3.529	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1	4A	0.0	0.00	79.8	12.28	3.515	2	1498	0.00970	0.00	0.00	0	332	0	3.80	0.00
1	5A	38.3	6.90	118.1	15.74	5.011	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	6A	0.0	0.00	118.1	15.74	4.990	2	1253	0.00910	0.00	0.00	0	332	0	3.60	0.00
1	7A	32.4	5.61	150.5	18.56	6.214	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	8A	0.0	0.00	150.5	18.56	6.189	2	1114	0.01010	0.00	0.00	0	332	0	3.50	0.00
1	9A	27.7	4.60	178.2	20.35	7.201	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	10A	0.0	0.00	178.2	20.35	7.162	2	1242	0.00870	0.00	0.00	0	332	0	3.40	0.00
1	11A	33.9	6.90	212.1	22.50	8.842	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.07
1	12A	0.0	0.00	212.1	21.68	8.493	2	1469	0.00990	0.00	0.00	0	332	0	3.40	0.00
1	13A	38.9	9.90	251.0	24.09	10.742	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	14A	0.0	0.00	251.0	22.90	10.201	2	1177	0.00870	0.00	0.00	0	336	0	3.30	0.00
1	15A	38.3	9.34	289.3	26.06	12.338	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	16A	0.0	0.00	289.3	25.00	11.870	2	994	0.01040	0.00	0.00	0	336	0	3.20	0.00

Qbb = 25.00 x 1.025 = 25.63 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinB.lac Run date: Tue Sep 29 09:49:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	3.48	22.1	3.48	1.112	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1	2B	0.0	0.00	22.1	2.93	0.871	2	2664	0.00930	0.00	0.00	0	124	0	3.40	0.00
1	3B	39.9	5.91	62.0	7.11	2.760	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1	4B	0.0	0.00	62.0	5.42	2.250	2	1443	0.01240	0.00	0.00	0	124	0	3.20	0.00
1	5B	39.0	4.23	101.0	7.90	3.604	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.04
1	6B	0.0	0.00	101.0	7.56	3.407	2	732	0.01030	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinB-Burned.lac Run date: Tue Sep 29 10:21:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	4.92	22.1	4.92	1.239	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	2B	0.0	0.00	22.1	4.27	1.000	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	8.21	62.0	9.66	3.092	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1	4B	0.0	0.00	62.0	7.68	2.592	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	6.63	101.0	11.42	4.158	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.04
1	6B	0.0	0.00	101.0	11.08	3.966	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinB-Burned.lac Run date: Tue Sep 29 10:21:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	4.92	22.1	4.92	1.239	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	2B	0.0	0.00	22.1	4.27	1.000	2	2664	0.00930	0.00	0.00	0	332	0	3.40	0.00
1	3B	39.9	8.21	62.0	9.66	3.092	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1	4B	0.0	0.00	62.0	7.68	2.592	2	1443	0.01240	0.00	0.00	0	332	0	3.20	0.00
1	5B	39.0	6.63	101.0	11.42	4.158	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.04
1	6B	0.0	0.00	101.0	11.08	3.966	2	732	0.01030	0.00	0.00	0	332	0	3.20	0.00

Qbb = 11.08 x 1.025 = 11.36 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinC.lac Run date: Tue Sep 29 09:52:20 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	4.10	17.8	4.10	1.000	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1	2C	0.0	0.00	17.8	4.10	0.999	2	1591	0.02010	0.00	0.00	0	124	0	6.20	0.00
1	3C	15.5	3.22	33.3	5.94	1.835	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1	4C	0.0	0.00	33.3	5.94	1.834	2	1045	0.01800	0.00	0.00	0	124	0	6.00	0.00
1	5C	29.5	5.50	62.8	9.76	3.364	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	6C	0.0	0.00	62.8	9.76	3.361	2	1347	0.01730	0.00	0.00	0	124	0	5.80	0.00
1	7C	25.1	4.42	87.9	12.63	4.637	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	8C	0.0	0.00	87.9	12.63	4.630	2	1037	0.01750	0.00	0.00	0	124	0	5.70	0.00
1	9C	20.7	3.44	108.6	14.85	5.661	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1	10C	0.0	0.00	108.6	14.85	5.652	2	733	0.01640	0.00	0.00	0	124	0	5.60	0.00
1	11C	25.8	4.03	134.4	17.55	6.913	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	12C	0.0	0.00	134.4	17.55	6.902	2	713	0.01620	0.00	0.00	0	124	0	5.50	0.00
1	13C	31.9	4.99	166.3	20.90	8.461	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1	14C	0.0	0.00	166.3	20.90	8.442	2	939	0.01560	0.00	0.00	0	124	0	5.50	0.00
1	15C	34.6	5.19	200.9	24.28	10.101	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	16C	0.0	0.00	200.9	24.28	10.077	2	903	0.01260	0.00	0.00	0	124	0	5.40	0.00
1	17C	32.8	4.73	233.7	27.18	11.591	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	18C	0.0	0.00	233.7	27.18	11.556	2	1112	0.01420	0.00	0.00	0	124	0	5.20	0.00
1	19C	23.2	3.22	256.9	28.61	12.586	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	20C	0.0	0.00	256.9	28.61	12.535	2	1160	0.01210	0.00	0.00	0	124	0	5.00	0.00
1	21C	29.7	3.87	286.6	29.46	13.774	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1	22C	0.0	0.00	286.6	29.46	13.688	2	1549	0.01130	0.00	0.00	0	124	0	4.70	0.00
1	23C	35.4	4.13	322.0	30.15	15.008	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1	24C	0.0	0.00	322.0	30.15	14.867	2	1993	0.01060	0.00	0.00	0	124	0	4.20	0.00
1	25C	28.1	3.04	350.1	30.33	15.840	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1	26C	0.0	0.00	350.1	30.33	15.775	2	765	0.00890	0.00	0.00	0	124	0	3.90	0.00
1	27C	35.0	3.50	385.1	30.97	16.894	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1	28C	0.0	0.00	385.1	30.97	16.705	2	1922	0.00820	0.00	0.00	0	124	0	3.60	0.00
1	29C	34.0	3.30	419.1	31.12	17.761	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	30C	0.0	0.00	419.1	31.12	17.622	2	1457	0.01040	0.00	0.00	0	124	0	3.50	0.00
1	31C	29.3	2.77	448.4	31.39	18.507	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	32C	0.0	0.00	448.4	31.39	18.382	2	1251	0.01080	0.00	0.00	0	124	0	3.40	0.00
1	33C	35.6	5.19	484.0	32.10	20.043	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.09
1	34C	0.0	0.00	484.0	32.04	19.447	2	2107	0.01100	0.00	0.00	0	124	0	3.30	0.00
1	35D	16.7	3.32	16.7	3.32	0.787	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	36D	0.0	0.00	16.7	3.32	0.786	2	1299	0.01300	0.00	0.00	0	134	0	5.20	0.00
1	37D	29.0	4.02	45.7	6.36	2.074	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	38D	0.0	0.00	45.7	6.36	2.072	2	1308	0.01380	0.00	0.00	0	124	0	5.00	0.00
1	39D	29.9	3.98	75.6	9.09	3.347	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40D	0.0	0.00	75.6	9.09	3.337	2	1530	0.01050	0.00	0.00	0	124	0	4.80	0.00
1 41D	21.4	2.67	97.0	10.06	4.191	0	0	0.00000	0.00	0.00	0	124	30	4.50	0.01
1 42D	0.0	0.00	97.0	10.06	4.174	2	1185	0.01070	0.00	0.00	0	124	0	4.50	0.00
1 43D	26.1	3.04	123.1	11.15	5.147	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 44D	0.0	0.00	123.1	11.15	5.113	2	1524	0.01060	0.00	0.00	0	124	0	4.20	0.00
1 45D	30.2	3.35	153.3	12.05	6.185	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 46D	0.0	0.00	153.3	12.05	6.128	2	1697	0.00840	0.00	0.00	0	124	0	4.00	0.00
1 47D	30.2	3.02	183.5	12.39	7.093	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 48D	0.0	0.00	183.5	12.39	7.047	2	1239	0.00990	0.00	0.00	0	124	0	3.60	0.00
1 49D	39.0	3.79	222.5	13.97	8.259	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 50D	0.0	0.00	222.5	13.97	8.169	2	1500	0.00870	0.00	0.00	0	124	0	3.50	0.00
1 51D	31.8	3.89	254.3	15.53	9.414	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.05
1 52D	0.0	0.00	254.3	15.49	9.090	2	1258	0.01140	0.00	0.00	0	124	0	3.40	0.00
1 53D	23.0	3.62	277.3	17.01	10.247	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1 54D	0.0	0.00	277.3	16.94	9.889	2	1118	0.00760	0.00	0.00	0	124	0	3.40	0.00
1 55D	14.6	2.23	291.9	17.27	10.602	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 56D	0.0	0.00	291.9	17.25	10.338	2	1256	0.00990	0.00	0.00	0	124	0	3.30	0.00

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* CONFLUENCE Q'S *

* 1 57C TC 1259 QC 31.75 QCD 46.53 QD 14.78 1 57D TD 1200 QD 17.12 QD -0.00 QWC 26.07 Qf 0.00

* 1 57CD TCD 1256 QCD 46.57 QC 31.71 QD 14.87

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	17.12	775.9	46.57	29.782	2	5	0.00100	0.00	0.00	0	124	0	3.30	0.00
1 58E	12.6	1.92	12.6	1.92	0.615	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 59E	0.0	0.00	12.6	1.92	0.464	2	1440	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 60E	28.7	4.25	41.3	5.39	1.823	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 61E	0.0	0.00	41.3	5.36	1.464	2	3334	0.01150	0.00	0.00	0	124	0	3.20	0.00
1 62F	16.5	3.61	16.5	3.61	0.909	0	0	0.00000	0.00	0.00	0	124	30	6.10	0.01
1 63F	0.0	0.00	16.5	3.61	0.908	2	1673	0.02100	0.00	0.00	0	124	0	6.10	0.00
1 64F	24.0	4.99	40.5	7.04	2.203	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1 65F	0.0	0.00	40.5	7.04	2.202	2	955	0.02000	0.00	0.00	0	124	0	6.00	0.00
1 66F	33.9	6.32	74.4	12.02	3.960	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 67F	0.0	0.00	74.4	12.02	3.959	2	1251	0.01830	0.00	0.00	0	124	0	5.80	0.00
1 68F	29.6	5.21	104.0	15.74	5.463	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1 69F	0.0	0.00	104.0	15.74	5.455	2	1122	0.01740	0.00	0.00	0	124	0	5.70	0.00
1 70F	25.9	4.30	129.9	18.58	6.746	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 71F	0.0	0.00	129.9	18.58	6.734	2	874	0.01460	0.00	0.00	0	124	0	5.60	0.00
1 72F	26.7	4.17	156.6	21.14	8.038	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 73F	0.0	0.00	156.6	21.14	8.021	2	907	0.01500	0.00	0.00	0	124	0	5.50	0.00
1 74F	29.9	4.48	186.5	23.58	9.454	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1 75F	0.0	0.00	186.5	23.58	9.432	2	876	0.01400	0.00	0.00	0	124	0	5.40	0.00
1 76F	39.5	5.70	226.0	26.63	11.256	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 77F	0.0	0.00	226.0	26.63	11.227	2	987	0.01600	0.00	0.00	0	124	0	5.20	0.00
1 78F	38.8	5.39	264.8	29.56	12.950	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 79F	0.0	0.00	264.8	29.56	12.916	2	900	0.01300	0.00	0.00	0	124	0	5.00	0.00
1 80F	39.6	5.28	304.4	32.44	14.603	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 81F	0.0	0.00	304.4	32.44	14.569	2	831	0.01430	0.00	0.00	0	124	0	4.80	0.00
1 82F	39.9	5.09	344.3	35.33	16.198	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 83F	0.0	0.00	344.3	35.33	16.156	2	829	0.01210	0.00	0.00	0	124	0	4.60	0.00
1 84F	39.8	4.86	384.1	37.91	17.710	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 85F	0.0	0.00	384.1	37.91	17.660	2	853	0.01170	0.00	0.00	0	124	0	4.40	0.00
1 86F	39.1	4.78	423.2	40.15	19.187	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 87F	0.0	0.00	423.2	40.15	19.107	2	1094	0.00990	0.00	0.00	0	124	0	4.40	0.00
1 88F	22.9	2.67	446.1	40.45	19.960	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 89F	0.0	0.00	446.1	40.45	19.881	2	845	0.00780	0.00	0.00	0	124	0	4.20	0.00
1 90F	36.2	3.92	482.3	41.35	21.134	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.01
1 91F	0.0	0.00	482.3	41.35	20.962	2	1675	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 92F	23.7	2.37	506.0	41.37	21.719	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 93F	0.0	0.00	506.0	41.37	21.575	2	1298	0.00950	0.00	0.00	0	124	0	3.60	0.00
1 94F	17.9	1.74	523.9	41.47	22.132	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 95F	0.0	0.00	523.9	41.47	22.003	2	1020	0.00840	0.00	0.00	0	124	0	3.50	0.00
1 96F	22.5	2.12	546.4	41.70	22.682	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 97F	0.0	0.00	546.4	41.70	22.468	2	1387	0.00640	0.00	0.00	0	124	0	3.40	0.00
1 98F	21.4	2.02	567.8	41.67	23.113	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1 99F	0.0	0.00	567.8	41.67	22.938	2	1222	0.00990	0.00	0.00	0	124	0	3.40	0.00
1 100F	16.7	2.55	584.5	41.91	23.754	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1 101F	0.0	0.00	584.5	41.89	23.393	2	1247	0.01150	0.00	0.00	0	124	0	3.30	0.00
1 102F	23.0	3.41	607.5	42.27	24.482	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 103F	0.0	0.00	607.5	42.22	23.730	2	3287	0.01110	0.00	0.00	0	124	0	3.20	0.00
1 104G	18.2	2.78	18.2	2.78	0.889	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1 105G	0.0	0.00	18.2	2.77	0.667	2	1898	0.01040	0.00	0.00	0	134	0	3.30	0.00
1 106G	39.9	5.12	58.1	6.49	2.305	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.07
1 107G	0.0	0.00	58.1	6.47	1.964	2	2469	0.00900	0.00	0.00	0	134	0	3.20	0.00
1 109C	21.4	3.17	797.3	47.05	30.796	0	0	0.00000	0.00	0.00	0	124	30	3.20	0.10
1 108CE	41.3	4.51	838.6	48.99	32.260	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00
1 109CF	607.5	41.29	1446.1	89.68	55.990	0	0	0.00000	0.00	0.00	0	124	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1261 QC    89.68 QCG    91.81 QG     2.13       1  110G  TG 1194 QG     5.79 QG     0.00 Q…C    75.31 Qf     0.00
*                                      1  110CG TCG 1261 QCG    91.81 QC    89.68 QG     2.13
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	5.79	1504.2	91.76	56.963	2	2279	0.00940	0.00	0.00	0	124	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinC-Burned.lac Run date: Tue Sep 29 10:35:33 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	7.40	484.0	63.27	26.041	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.09
1	34C	0.0	0.00	484.0	63.19	25.438	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	7.06	16.7	7.06	1.181	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	36D	0.0	0.00	16.7	7.06	1.180	2	1299	0.01300	0.00	0.00	0	336	0	5.20	0.00
1	37D	29.0	8.52	45.7	13.82	2.864	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	13.82	2.862	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	19.54	4.513	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40D	0.0	0.00	75.6	19.54	4.502	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1 41D	21.4	5.36	97.0	21.36	5.594	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01
1 42D	0.0	0.00	97.0	21.36	5.574	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.74	6.799	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.74	6.762	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	23.02	8.099	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	23.02	8.037	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	23.52	9.216	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	23.52	9.166	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	6.75	222.5	24.31	10.639	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 50D	0.0	0.00	222.5	24.31	10.543	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	6.08	254.3	25.08	11.980	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.05
1 52D	0.0	0.00	254.3	25.05	11.655	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	5.12	277.3	26.52	12.945	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 54D	0.0	0.00	277.3	26.47	12.586	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	3.12	291.9	26.60	13.377	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 56D	0.0	0.00	291.9	26.60	13.112	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

****
* CONFLUENCE Q'S *
* 1 57C TC 1244 QC 62.23 QCD 88.08 QD 25.85 1 57D TD 1201 QD 26.43 QD 0.00 Q>C 41.76 Q¢ 0.00
* 1 57CD TCD 1244 QCD 88.08 QC 62.23 QD 25.85
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	26.43	775.9	88.08	38.547	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.70	12.6	2.70	0.683	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 59E	0.0	0.00	12.6	2.70	0.532	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	5.90	41.3	7.42	2.037	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 61E	0.0	0.00	41.3	7.40	1.679	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.27	30.108	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	3.57	584.5	81.33	31.014	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 101F	0.0	0.00	584.5	81.31	30.647	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	4.73	607.5	81.54	31.853	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 103F	0.0	0.00	607.5	81.49	31.079	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	4.63	18.2	4.63	1.052	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1 105G	0.0	0.00	18.2	4.63	0.831	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	9.07	58.1	11.03	2.816	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.07
1 107G	0.0	0.00	58.1	11.02	2.476	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	4.40	797.3	88.62	39.670	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 108CE	41.3	6.12	838.6	91.26	41.349	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00
1 109CF	607.5	79.01	1446.1	169.08	72.428	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00

```
*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1248 QC   169.08 QCG   172.16 QG     3.08       1  110G  TG 1191 QG     9.74 QG     0.00 QKC   111.13 Q¢     0.00
*                                      1  110CG TCG 1247 QCG   172.18 QC   169.04 QG     3.14
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	9.74	1504.2	172.12	73.890	2	2279	0.00940	0.00	0.00	0	332	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinC-Burned.lac Run date: Tue Sep 29 10:35:33 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	7.30	17.8	7.30	1.354	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	2C	0.0	0.00	17.8	7.30	1.353	2	1591	0.02010	0.00	0.00	0	332	0	6.20	0.00
1	3C	15.5	6.04	33.3	11.86	2.484	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1	4C	0.0	0.00	33.3	11.86	2.482	2	1045	0.01800	0.00	0.00	0	332	0	6.00	0.00
1	5C	29.5	10.90	62.8	20.46	4.544	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	6C	0.0	0.00	62.8	20.46	4.541	2	1347	0.01730	0.00	0.00	0	332	0	5.80	0.00
1	7C	25.1	9.02	87.9	26.71	6.257	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	8C	0.0	0.00	87.9	26.71	6.249	2	1037	0.01750	0.00	0.00	0	332	0	5.70	0.00
1	9C	20.7	7.24	108.6	31.48	7.633	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1	10C	0.0	0.00	108.6	31.48	7.624	2	733	0.01640	0.00	0.00	0	332	0	5.60	0.00
1	11C	25.8	8.77	134.4	37.36	9.310	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	12C	0.0	0.00	134.4	37.36	9.299	2	713	0.01620	0.00	0.00	0	332	0	5.50	0.00
1	13C	31.9	10.85	166.3	44.64	11.384	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1	14C	0.0	0.00	166.3	44.64	11.365	2	939	0.01560	0.00	0.00	0	332	0	5.50	0.00
1	15C	34.6	11.44	200.9	51.88	13.575	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1	16C	0.0	0.00	200.9	51.88	13.549	2	903	0.01260	0.00	0.00	0	332	0	5.40	0.00
1	17C	32.8	10.23	233.7	57.92	15.549	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	18C	0.0	0.00	233.7	57.92	15.511	2	1112	0.01420	0.00	0.00	0	332	0	5.20	0.00
1	19C	23.2	6.81	256.9	61.00	16.858	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	20C	0.0	0.00	256.9	61.00	16.804	2	1160	0.01210	0.00	0.00	0	332	0	5.00	0.00
1	21C	29.7	7.94	286.6	62.94	18.402	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1	22C	0.0	0.00	286.6	62.94	18.309	2	1549	0.01130	0.00	0.00	0	332	0	4.70	0.00
1	23C	35.4	8.00	322.0	63.04	19.970	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1	24C	0.0	0.00	322.0	63.04	19.819	2	1993	0.01060	0.00	0.00	0	332	0	4.20	0.00
1	25C	28.1	5.69	350.1	62.58	21.026	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1	26C	0.0	0.00	350.1	62.58	20.955	2	765	0.00890	0.00	0.00	0	332	0	3.90	0.00
1	27C	35.0	6.31	385.1	63.30	22.322	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1	28C	0.0	0.00	385.1	63.30	22.117	2	1922	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	29C	34.0	5.88	419.1	62.68	23.401	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1	30C	0.0	0.00	419.1	62.68	23.251	2	1457	0.01040	0.00	0.00	0	332	0	3.50	0.00
1	31C	29.3	4.86	448.4	62.69	24.321	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1	32C	0.0	0.00	448.4	62.69	24.185	2	1251	0.01080	0.00	0.00	0	332	0	3.40	0.00
1	33C	35.6	7.40	484.0	63.27	26.041	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.09
1	34C	0.0	0.00	484.0	63.19	25.438	2	2107	0.01100	0.00	0.00	0	332	0	3.30	0.00
1	35D	16.7	7.06	16.7	7.06	1.181	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	36D	0.0	0.00	16.7	7.06	1.180	2	1299	0.01300	0.00	0.00	0	336	0	5.20	0.00
1	37D	29.0	8.52	45.7	13.82	2.864	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	38D	0.0	0.00	45.7	13.82	2.862	2	1308	0.01380	0.00	0.00	0	332	0	5.00	0.00
1	39D	29.9	8.25	75.6	19.54	4.513	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40D	0.0	0.00	75.6	19.54	4.502	2	1530	0.01050	0.00	0.00	0	332	0	4.80	0.00
1 41D	21.4	5.36	97.0	21.36	5.594	0	0	0.00000	0.00	0.00	0	332	30	4.50	0.01
1 42D	0.0	0.00	97.0	21.36	5.574	2	1185	0.01070	0.00	0.00	0	332	0	4.50	0.00
1 43D	26.1	5.90	123.1	22.74	6.799	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 44D	0.0	0.00	123.1	22.74	6.762	2	1524	0.01060	0.00	0.00	0	332	0	4.20	0.00
1 45D	30.2	6.35	153.3	23.02	8.099	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 46D	0.0	0.00	153.3	23.02	8.037	2	1697	0.00840	0.00	0.00	0	332	0	4.00	0.00
1 47D	30.2	5.44	183.5	23.52	9.216	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 48D	0.0	0.00	183.5	23.52	9.166	2	1239	0.00990	0.00	0.00	0	332	0	3.60	0.00
1 49D	39.0	6.75	222.5	24.31	10.639	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 50D	0.0	0.00	222.5	24.31	10.543	2	1500	0.00870	0.00	0.00	0	332	0	3.50	0.00
1 51D	31.8	6.08	254.3	25.08	11.980	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.05
1 52D	0.0	0.00	254.3	25.05	11.655	2	1258	0.01140	0.00	0.00	0	332	0	3.40	0.00
1 53D	23.0	5.12	277.3	26.52	12.945	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 54D	0.0	0.00	277.3	26.47	12.586	2	1118	0.00760	0.00	0.00	0	332	0	3.40	0.00
1 55D	14.6	3.12	291.9	26.60	13.377	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 56D	0.0	0.00	291.9	26.60	13.112	2	1256	0.00990	0.00	0.00	0	332	0	3.30	0.00

****
* CONFLUENCE Q'S *
* 1 57C TC 1244 QC 62.23 QCD 88.08 QD 25.85 1 57D TD 1201 QD 26.43 QD 0.00 Q>C 41.76 Q¢ 0.00
* 1 57CD TCD 1244 QCD 88.08 QC 62.23 QD 25.85
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	26.43	775.9	88.08	38.547	2	5	0.00100	0.00	0.00	0	332	0	3.30	0.00
1 58E	12.6	2.70	12.6	2.70	0.683	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 59E	0.0	0.00	12.6	2.70	0.532	2	1440	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 60E	28.7	5.90	41.3	7.42	2.037	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 61E	0.0	0.00	41.3	7.40	1.679	2	3334	0.01150	0.00	0.00	0	332	0	3.20	0.00
1 62F	16.5	6.60	16.5	6.60	1.229	0	0	0.00000	0.00	0.00	0	332	30	6.10	0.01
1 63F	0.0	0.00	16.5	6.60	1.229	2	1673	0.02100	0.00	0.00	0	332	0	6.10	0.00
1 64F	24.0	9.35	40.5	14.16	2.980	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 65F	0.0	0.00	40.5	14.16	2.979	2	955	0.02000	0.00	0.00	0	332	0	6.00	0.00
1 66F	33.9	12.52	74.4	24.83	5.348	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 67F	0.0	0.00	74.4	24.83	5.346	2	1251	0.01830	0.00	0.00	0	332	0	5.80	0.00
1 68F	29.6	10.64	104.0	33.05	7.369	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1 69F	0.0	0.00	104.0	33.05	7.361	2	1122	0.01740	0.00	0.00	0	332	0	5.70	0.00
1 70F	25.9	9.06	129.9	39.35	9.093	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 71F	0.0	0.00	129.9	39.35	9.080	2	874	0.01460	0.00	0.00	0	332	0	5.60	0.00
1 72F	26.7	9.08	156.6	45.16	10.825	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 73F	0.0	0.00	156.6	45.16	10.807	2	907	0.01500	0.00	0.00	0	332	0	5.50	0.00
1 74F	29.9	9.88	186.5	50.76	12.717	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 75F	0.0	0.00	186.5	50.76	12.694	2	876	0.01400	0.00	0.00	0	332	0	5.40	0.00
1 76F	39.5	12.32	226.0	57.30	15.101	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 77F	0.0	0.00	226.0	57.30	15.071	2	987	0.01600	0.00	0.00	0	332	0	5.20	0.00
1 78F	38.8	11.40	264.8	62.93	17.324	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 79F	0.0	0.00	264.8	62.93	17.287	2	900	0.01300	0.00	0.00	0	332	0	5.00	0.00
1 80F	39.6	10.93	304.4	68.15	19.474	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 81F	0.0	0.00	304.4	68.15	19.437	2	831	0.01430	0.00	0.00	0	332	0	4.80	0.00
1 82F	39.9	10.33	344.3	73.19	21.528	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 83F	0.0	0.00	344.3	73.19	21.483	2	829	0.01210	0.00	0.00	0	332	0	4.60	0.00
1 84F	39.8	9.64	384.1	77.52	23.459	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 85F	0.0	0.00	384.1	77.52	23.405	2	853	0.01170	0.00	0.00	0	332	0	4.40	0.00
1 86F	39.1	9.47	423.2	81.19	25.346	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 87F	0.0	0.00	423.2	81.19	25.260	2	1094	0.00990	0.00	0.00	0	332	0	4.40	0.00
1 88F	22.9	5.17	446.1	81.36	26.335	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 89F	0.0	0.00	446.1	81.36	26.249	2	845	0.00780	0.00	0.00	0	332	0	4.20	0.00
1 90F	36.2	7.33	482.3	82.36	27.803	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.01
1 91F	0.0	0.00	482.3	82.36	27.618	2	1675	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 92F	23.7	4.27	506.0	81.84	28.544	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.01
1 93F	0.0	0.00	506.0	81.84	28.388	2	1298	0.00950	0.00	0.00	0	332	0	3.60	0.00
1 94F	17.9	3.10	523.9	81.68	29.064	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.01
1 95F	0.0	0.00	523.9	81.68	28.925	2	1020	0.00840	0.00	0.00	0	332	0	3.50	0.00
1 96F	22.5	3.74	546.4	81.79	29.747	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 97F	0.0	0.00	546.4	81.79	29.515	2	1387	0.00640	0.00	0.00	0	332	0	3.40	0.00
1 98F	21.4	3.55	567.8	81.28	30.296	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.01
1 99F	0.0	0.00	567.8	81.27	30.108	2	1222	0.00990	0.00	0.00	0	332	0	3.40	0.00
1 100F	16.7	3.57	584.5	81.33	31.014	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 101F	0.0	0.00	584.5	81.31	30.647	2	1247	0.01150	0.00	0.00	0	332	0	3.30	0.00
1 102F	23.0	4.73	607.5	81.54	31.853	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 103F	0.0	0.00	607.5	81.49	31.079	2	3287	0.01110	0.00	0.00	0	332	0	3.20	0.00
1 104G	18.2	4.63	18.2	4.63	1.052	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1 105G	0.0	0.00	18.2	4.63	0.831	2	1898	0.01040	0.00	0.00	0	336	0	3.30	0.00
1 106G	39.9	9.07	58.1	11.03	2.816	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.07
1 107G	0.0	0.00	58.1	11.02	2.476	2	2469	0.00900	0.00	0.00	0	336	0	3.20	0.00
1 109C	21.4	4.40	797.3	88.62	39.670	0	0	0.00000	0.00	0.00	0	332	30	3.20	0.10
1 108CE	41.3	6.12	838.6	91.26	41.349	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00
1 109CF	607.5	79.01	1446.1	169.08	72.428	0	0	0.00000	0.00	0.00	0	332	0	3.20	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1248 QC   169.08 QCG   172.16 QG     3.08       1  110G  TG 1191 QG     9.74 QG     0.00 QKC   111.13 Q¢     0.00
*                                      1  110CG TCG 1247 QCG   172.18 QC   169.04 QG     3.14
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	9.74	1504.2	172.12	73.890	2	2279	0.00940	0.00	0.00	0	332	0	3.20	0.00

Qbb = 172.12 x 1.025 = 176.42 cfs
Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinH.lac Run date: Tue Sep 29 09:54:00 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	2.90	19.0	2.90	0.928	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	2H	0.0	0.00	19.0	2.16	0.690	2	1718	0.00900	0.00	0.00	0	134	0	3.30	0.00
1	3H	39.5	4.03	58.5	5.07	1.978	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1	4H	0.0	0.00	58.5	4.55	1.825	2	1850	0.01120	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinH-Burned.lac Run date: Tue Sep 29 10:38:28 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	4.84	19.0	4.84	1.098	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	2H	0.0	0.00	19.0	3.92	0.865	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	8.10	58.5	9.58	2.513	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4H	0.0	0.00	58.5	8.93	2.365	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinH-Burned.lac Run date: Tue Sep 29 10:38:28 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	4.84	19.0	4.84	1.098	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	2H	0.0	0.00	19.0	3.92	0.865	2	1718	0.00900	0.00	0.00	0	336	0	3.30	0.00
1	3H	39.5	8.10	58.5	9.58	2.513	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4H	0.0	0.00	58.5	8.93	2.365	2	1850	0.01120	0.00	0.00	0	336	0	3.20	0.00

Qbb = 8.93 x 1.025 = 9.15 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinI.lac Run date: Tue Sep 29 09:55:27 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	2.01	10.8	2.01	0.560	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1	2I	0.0	0.00	10.8	2.01	0.559	2	1416	0.01690	0.00	0.00	0	124	0	5.80	0.00
1	3I	18.1	3.19	28.9	4.30	1.479	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	4I	0.0	0.00	28.9	4.30	1.479	2	929	0.01630	0.00	0.00	0	124	0	5.70	0.00
1	5I	12.8	2.25	41.7	5.99	2.129	0	0	0.00000	0.00	0.00	0	124	30	5.70	0.01
1	6I	0.0	0.00	41.7	5.99	2.128	2	459	0.01690	0.00	0.00	0	124	0	5.70	0.00
1	7I	16.5	4.25	58.2	9.40	2.986	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1	8I	0.0	0.00	58.2	9.40	2.985	2	616	0.01360	0.00	0.00	0	134	0	5.60	0.00
1	9I	25.9	6.68	84.1	14.85	4.331	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1	10I	0.0	0.00	84.1	14.85	4.329	2	879	0.01490	0.00	0.00	0	134	0	5.60	0.00
1	11I	26.8	6.50	110.9	19.40	5.688	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1	12I	0.0	0.00	110.9	19.40	5.678	2	968	0.01270	0.00	0.00	0	134	0	5.50	0.00
1	13I	31.1	6.62	142.0	22.73	7.180	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1	14I	0.0	0.00	142.0	22.73	7.159	2	1180	0.01260	0.00	0.00	0	134	0	5.30	0.00
1	15I	37.7	7.48	179.7	26.12	8.936	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1	16I	0.0	0.00	179.7	26.12	8.899	2	1443	0.01290	0.00	0.00	0	134	0	5.20	0.00
1	17I	27.6	4.37	207.3	26.85	10.107	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1	18I	0.0	0.00	207.3	26.85	10.076	2	900	0.01190	0.00	0.00	0	134	0	4.90	0.00
1	19I	25.5	3.71	232.8	27.58	11.165	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1	20I	0.0	0.00	232.8	27.58	11.132	2	838	0.01250	0.00	0.00	0	134	0	4.80	0.00
1	21I	37.2	4.75	270.0	28.79	12.651	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1	22I	0.0	0.00	270.0	28.79	12.593	2	1165	0.01030	0.00	0.00	0	134	0	4.60	0.00
1	23I	34.3	4.19	304.3	29.66	13.932	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1	24I	0.0	0.00	304.3	29.66	13.874	2	1034	0.01070	0.00	0.00	0	134	0	4.40	0.00
1	25I	38.0	4.43	342.3	30.55	15.291	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1	26I	0.0	0.00	342.3	30.55	15.221	2	1049	0.01010	0.00	0.00	0	134	0	4.20	0.00
1	27I	39.5	4.17	381.8	31.33	16.554	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1	28I	0.0	0.00	381.8	31.33	16.385	2	2077	0.00930	0.00	0.00	0	134	0	3.80	0.00
1	29I	29.4	3.70	411.2	31.76	17.569	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.05
1	30I	0.0	0.00	411.2	31.74	17.235	2	1661	0.00960	0.00	0.00	0	134	0	3.50	0.00
1	31I	39.6	6.23	450.8	32.65	19.227	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1	32I	0.0	0.00	450.8	32.54	18.578	2	1306	0.00980	0.00	0.00	0	134	0	3.40	0.00
1	33I	39.3	8.38	490.1	33.79	21.258	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.18
1	34I	0.0	0.00	490.1	33.58	20.252	2	1279	0.00660	0.00	0.00	0	134	0	3.40	0.00
1	35I	26.7	4.08	516.8	34.08	21.556	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.10
1	36I	0.0	0.00	516.8	34.03	21.103	2	878	0.01140	0.00	0.00	0	134	0	3.30	0.00
1	37I	37.9	4.61	554.7	34.65	22.578	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	38I	0.0	0.00	554.7	34.63	22.005	2	1809	0.00760	0.00	0.00	0	134	0	3.20	0.00
1	39J	27.8	5.52	27.8	5.52	1.310	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40J	0.0	0.00	27.8	5.52	1.310	2	1645	0.01190	0.00	0.00	0	134	0	5.20	0.00
1 41J	18.8	3.22	46.6	6.65	2.153	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 42J	0.0	0.00	46.6	6.65	2.152	2	760	0.01290	0.00	0.00	0	134	0	5.00	0.00
1 43J	32.3	5.11	78.9	9.93	3.566	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1 44J	0.0	0.00	78.9	9.93	3.562	2	1022	0.01280	0.00	0.00	0	134	0	4.90	0.00
1 45J	32.3	4.31	111.2	13.04	4.910	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1 46J	0.0	0.00	111.2	13.04	4.897	2	1126	0.01150	0.00	0.00	0	134	0	4.70	0.00
1 47J	27.3	3.33	138.5	15.12	5.963	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1 48J	0.0	0.00	138.5	15.12	5.942	2	1116	0.01060	0.00	0.00	0	134	0	4.40	0.00
1 49J	22.5	2.62	161.0	15.96	6.781	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1 50J	0.0	0.00	161.0	15.96	6.754	2	1019	0.01040	0.00	0.00	0	134	0	4.20	0.00
1 51J	18.6	1.96	179.6	16.16	7.381	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 52J	0.0	0.00	179.6	16.16	7.344	2	1085	0.00980	0.00	0.00	0	134	0	3.80	0.00
1 53J	35.3	4.83	214.9	17.23	8.887	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.05
1 54J	0.0	0.00	214.9	17.22	8.677	2	1400	0.01030	0.00	0.00	0	134	0	3.80	0.00
1 55J	40.0	6.66	254.9	20.03	10.808	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.10
1 56J	0.0	0.00	254.9	19.76	10.226	2	1510	0.00790	0.00	0.00	0	134	0	3.60	0.00
1 57J	40.0	6.29	294.9	21.94	12.239	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1 58J	0.0	0.00	294.9	21.53	11.646	2	1410	0.00900	0.00	0.00	0	134	0	3.40	0.00
1 59J	37.3	10.50	332.2	26.83	15.005	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.29
1 60J	0.0	0.00	332.2	26.22	14.176	2	1434	0.00910	0.00	0.00	0	134	0	3.30	0.00
1 61J	28.5	4.22	360.7	27.28	15.525	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1 62J	0.0	0.00	360.7	26.98	14.985	2	2082	0.00730	0.00	0.00	0	134	0	3.20	0.00

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*****************************************************************************************************************
*                                                    CONFLUENCE Q'S                                             *
* 1   63I  TI 1284 QI    34.49 QIJ    55.90 QJ    21.41       1   63J  TJ 1206 QJ    26.46 QJ415823432777732.56 Q
I    31.45 Q
     0.00
*                                      1   63IJ TIJ 1210 QIJ    57.99 QI    31.59 QJ    26.40
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	26.46	915.4	57.99	36.989	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinI-Burned.lac Run date: Tue Sep 29 10:44:41 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	4.60	41.7	12.90	2.866	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	6I	0.0	0.00	41.7	12.90	2.865	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	7.89	58.2	19.51	4.155	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	8I	0.0	0.00	58.2	19.51	4.155	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	12.38	84.1	30.06	6.180	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	10I	0.0	0.00	84.1	30.06	6.177	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	40.09	8.221	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	40.09	8.210	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	50.02	10.466	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	50.02	10.444	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	59.88	13.110	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	59.88	13.069	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	63.82	14.871	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	63.82	14.836	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	66.79	16.456	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	66.79	16.420	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	70.74	18.654	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	70.74	18.589	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	71.95	20.531	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	71.95	20.466	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	73.47	22.491	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	73.47	22.415	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	74.87	24.265	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	74.87	24.077	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	7.26	411.2	75.35	25.575	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.05
1	30I	0.0	0.00	411.2	75.33	25.229	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	10.51	450.8	76.40	27.599	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	32I	0.0	0.00	450.8	76.26	26.951	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	12.25	490.1	77.73	29.972	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.18
1	34I	0.0	0.00	490.1	77.33	28.981	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	6.80	516.8	77.73	30.525	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	36I	0.0	0.00	516.8	77.66	30.079	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	8.40	554.7	78.42	31.889	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	38I	0.0	0.00	554.7	78.37	31.314	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1 41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	9.86	214.9	43.61	12.817	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.05
1 54J	0.0	0.00	214.9	43.58	12.603	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	11.51	254.9	45.02	15.161	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1 56J	0.0	0.00	254.9	44.84	14.580	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	10.62	294.9	45.86	16.973	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1 58J	0.0	0.00	294.9	45.73	16.382	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	13.50	332.2	47.54	20.006	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.29
1 60J	0.0	0.00	332.2	47.34	19.187	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	6.95	360.7	47.91	20.778	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 62J	0.0	0.00	360.7	47.88	20.240	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                    CONFLUENCE Q'S                                             *
* 1   63I  TI 1251 QI    77.73 QIJ   124.74 QJ    47.01       1   63J  TJ 1245 QJ    47.44 QJ    -0.00 Q.I    76.88 Q
     0.00
*                                        1   63IJ TIJ 1249 QIJ   124.86 QI    77.61 QJ    47.25
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	47.44	915.4	124.86	51.553	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinI-Burned.lac Run date: Tue Sep 29 10:44:41 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	3.99	10.8	3.99	0.755	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1	2I	0.0	0.00	10.8	3.99	0.754	2	1416	0.01690	0.00	0.00	0	332	0	5.80	0.00
1	3I	18.1	6.51	28.9	9.26	1.991	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	4I	0.0	0.00	28.9	9.26	1.991	2	929	0.01630	0.00	0.00	0	332	0	5.70	0.00
1	5I	12.8	4.60	41.7	12.90	2.866	0	0	0.00000	0.00	0.00	0	332	30	5.70	0.01
1	6I	0.0	0.00	41.7	12.90	2.865	2	459	0.01690	0.00	0.00	0	332	0	5.70	0.00
1	7I	16.5	7.89	58.2	19.51	4.155	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	8I	0.0	0.00	58.2	19.51	4.155	2	616	0.01360	0.00	0.00	0	336	0	5.60	0.00
1	9I	25.9	12.38	84.1	30.06	6.180	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1	10I	0.0	0.00	84.1	30.06	6.177	2	879	0.01490	0.00	0.00	0	336	0	5.60	0.00
1	11I	26.8	12.43	110.9	40.09	8.221	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	12I	0.0	0.00	110.9	40.09	8.210	2	968	0.01270	0.00	0.00	0	336	0	5.50	0.00
1	13I	31.1	13.56	142.0	50.02	10.466	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1	14I	0.0	0.00	142.0	50.02	10.444	2	1180	0.01260	0.00	0.00	0	336	0	5.30	0.00
1	15I	37.7	15.93	179.7	59.88	13.110	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1	16I	0.0	0.00	179.7	59.88	13.069	2	1443	0.01290	0.00	0.00	0	336	0	5.20	0.00
1	17I	27.6	10.57	207.3	63.82	14.871	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1	18I	0.0	0.00	207.3	63.82	14.836	2	900	0.01190	0.00	0.00	0	336	0	4.90	0.00
1	19I	25.5	9.44	232.8	66.79	16.456	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1	20I	0.0	0.00	232.8	66.79	16.420	2	838	0.01250	0.00	0.00	0	336	0	4.80	0.00
1	21I	37.2	12.85	270.0	70.74	18.654	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1	22I	0.0	0.00	270.0	70.74	18.589	2	1165	0.01030	0.00	0.00	0	336	0	4.60	0.00
1	23I	34.3	11.02	304.3	71.95	20.531	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1	24I	0.0	0.00	304.3	71.95	20.466	2	1034	0.01070	0.00	0.00	0	336	0	4.40	0.00
1	25I	38.0	11.32	342.3	73.47	22.491	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1	26I	0.0	0.00	342.3	73.47	22.415	2	1049	0.01010	0.00	0.00	0	336	0	4.20	0.00
1	27I	39.5	10.03	381.8	74.87	24.265	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1	28I	0.0	0.00	381.8	74.87	24.077	2	2077	0.00930	0.00	0.00	0	336	0	3.80	0.00
1	29I	29.4	7.26	411.2	75.35	25.575	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.05
1	30I	0.0	0.00	411.2	75.33	25.229	2	1661	0.00960	0.00	0.00	0	336	0	3.50	0.00
1	31I	39.6	10.51	450.8	76.40	27.599	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	32I	0.0	0.00	450.8	76.26	26.951	2	1306	0.00980	0.00	0.00	0	336	0	3.40	0.00
1	33I	39.3	12.25	490.1	77.73	29.972	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.18
1	34I	0.0	0.00	490.1	77.33	28.981	2	1279	0.00660	0.00	0.00	0	336	0	3.40	0.00
1	35I	26.7	6.80	516.8	77.73	30.525	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.10
1	36I	0.0	0.00	516.8	77.66	30.079	2	878	0.01140	0.00	0.00	0	336	0	3.30	0.00
1	37I	37.9	8.40	554.7	78.42	31.889	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	38I	0.0	0.00	554.7	78.37	31.314	2	1809	0.00760	0.00	0.00	0	336	0	3.20	0.00
1	39J	27.8	11.74	27.8	11.74	1.966	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40J	0.0	0.00	27.8	11.74	1.964	2	1645	0.01190	0.00	0.00	0	336	0	5.20	0.00
1 41J	18.8	7.44	46.6	16.35	3.226	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 42J	0.0	0.00	46.6	16.35	3.224	2	760	0.01290	0.00	0.00	0	336	0	5.00	0.00
1 43J	32.3	12.37	78.9	25.77	5.333	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 44J	0.0	0.00	78.9	25.77	5.327	2	1022	0.01280	0.00	0.00	0	336	0	4.90	0.00
1 45J	32.3	11.55	111.2	33.91	7.323	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 46J	0.0	0.00	111.2	33.91	7.309	2	1126	0.01150	0.00	0.00	0	336	0	4.70	0.00
1 47J	27.3	8.77	138.5	39.19	8.855	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 48J	0.0	0.00	138.5	39.19	8.831	2	1116	0.01060	0.00	0.00	0	336	0	4.40	0.00
1 49J	22.5	6.71	161.0	41.93	10.030	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 50J	0.0	0.00	161.0	41.93	10.000	2	1019	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 51J	18.6	4.72	179.6	42.38	10.872	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.01
1 52J	0.0	0.00	179.6	42.38	10.830	2	1085	0.00980	0.00	0.00	0	336	0	3.80	0.00
1 53J	35.3	9.86	214.9	43.61	12.817	0	0	0.00000	0.00	0.00	0	336	30	3.80	0.05
1 54J	0.0	0.00	214.9	43.58	12.603	2	1400	0.01030	0.00	0.00	0	336	0	3.80	0.00
1 55J	40.0	11.51	254.9	45.02	15.161	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.10
1 56J	0.0	0.00	254.9	44.84	14.580	2	1510	0.00790	0.00	0.00	0	336	0	3.60	0.00
1 57J	40.0	10.62	294.9	45.86	16.973	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1 58J	0.0	0.00	294.9	45.73	16.382	2	1410	0.00900	0.00	0.00	0	336	0	3.40	0.00
1 59J	37.3	13.50	332.2	47.54	20.006	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.29
1 60J	0.0	0.00	332.2	47.34	19.187	2	1434	0.00910	0.00	0.00	0	336	0	3.30	0.00
1 61J	28.5	6.95	360.7	47.91	20.778	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 62J	0.0	0.00	360.7	47.88	20.240	2	2082	0.00730	0.00	0.00	0	336	0	3.20	0.00

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*****************************************************************************************************************
*                                                    CONFLUENCE Q'S                                             *
* 1   63I  TI 1251 QI    77.73 QIJ   124.74 QJ    47.01       1   63J  TJ 1245 QJ    47.44 QJ    -0.00 Q.I    76.88 Q
     0.00
*                                        1   63IJ TIJ 1249 QIJ   124.86 QI    77.61 QJ    47.25
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	47.44	915.4	124.86	51.553	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 124.86 x 1.025 = 127.98 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinK.lac Run date: Tue Sep 29 09:59:13 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	353.1	884.88	353.1	884.88	41.569	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	353.1	884.88	41.545	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	16.52	374.6	889.30	42.909	0	0	0.00000	0.00	0.00	0	124	12	6.40	0.01
1	4K	0.0	0.00	374.6	889.30	42.909	2	571	0.03050	0.00	0.00	0	124	0	6.40	0.00
1	5K	39.6	9.57	414.2	892.76	45.177	0	0	0.00000	0.00	0.00	0	124	30	6.30	0.01
1	6B	39.7	5.88	39.7	5.88	1.880	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1	6K	0.0	0.00	414.2	892.76	45.178	2	1014	0.02040	0.00	0.00	0	134	0	3.20	0.00
1	7K	39.6	9.11	453.8	882.30	47.402	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1	8K	0.0	0.00	453.8	882.30	47.418	2	1054	0.01830	0.00	0.00	0	124	0	6.20	0.00
1	9K	30.7	15.90	484.5	878.31	49.259	0	0	0.00000	0.00	0.00	0	134	21	6.00	0.01
1	10K	0.0	0.00	484.5	878.31	49.254	2	957	0.01610	0.00	0.00	0	134	0	6.00	0.00
1	11K	33.2	10.17	517.7	870.84	51.105	0	0	0.00000	0.00	0.00	0	134	30	5.90	0.01
1	12K	0.0	0.00	517.7	870.84	51.019	2	1511	0.01470	0.00	0.00	0	134	0	5.90	0.00
1	13L	28.8	30.99	28.8	30.99	2.035	0	0	0.00000	0.00	0.00	0	134	12	6.60	0.01
1	14L	0.0	0.00	28.8	30.99	2.035	2	659	0.02120	0.00	0.00	0	134	0	6.60	0.00
1	15L	24.8	25.98	53.6	52.41	3.753	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1	16L	0.0	0.00	53.6	52.41	3.751	2	724	0.02090	0.00	0.00	0	134	0	6.50	0.00
1	17B	39.1	5.88	78.8	11.75	3.759	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.09
1	18L	0.0	0.00	53.6	50.29	3.750	2	1152	0.01700	0.00	0.00	0	134	0	3.40	0.00
1	19L	21.3	8.02	74.9	50.95	5.029	0	0	0.00000	0.00	0.00	0	134	29	6.20	0.01
1	20L	0.0	0.00	74.9	50.95	5.024	2	1374	0.01640	0.00	0.00	0	134	0	6.20	0.00
1	21L	17.9	5.79	92.8	48.23	6.046	0	0	0.00000	0.00	0.00	0	134	30	6.00	0.01
1	22L	0.0	0.00	92.8	48.23	6.026	2	1523	0.01560	0.00	0.00	0	134	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   23K  TK 1166 QK   827.13 QKL   839.67 QL    12.55       1   23L  TL 1180 QL    42.41 QL    -0.00 Q)K   210.07 QÃ     0.00
*                                   1   23KL TKL 1166 QKL   839.67 QK   827.13 QL    12.55
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	42.41	610.5	839.67	56.972	2	709	0.01300	0.00	0.00	0	134	0	6.00	0.00
1	24K	30.9	13.52	641.4	833.86	58.659	0	0	0.00000	0.00	0.00	0	134	21	5.60	0.01
1	25K	0.0	0.00	641.4	833.86	58.574	2	778	0.01320	0.00	0.00	0	134	0	5.60	0.00
1	26K	32.3	8.78	673.7	828.64	60.260	0	0	0.00000	0.00	0.00	0	134	29	5.60	0.01
1	27K	0.0	0.00	673.7	828.64	60.162	2	881	0.01070	0.00	0.00	0	134	0	5.60	0.00
1	28K	28.9	7.00	702.6	814.62	61.628	0	0	0.00000	0.00	0.00	0	134	30	5.50	0.01
1	29K	0.0	0.00	702.6	814.62	61.497	2	934	0.01050	0.00	0.00	0	134	0	5.50	0.00
1	30K	21.2	4.82	723.8	798.64	62.546	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1	31K	0.0	0.00	723.8	798.64	62.429	2	853	0.01320	0.00	0.00	0	134	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	20.05	971.7	3852.37	515.150	0	0	0.00000	0.00	0.00	0	134	21	6.60	0.01
1 35M	0.0	0.00	971.7	3852.37	515.040	2	1319	0.02170	0.00	0.00	0	134	0	6.60	0.00
1 36M	29.5	18.35	1001.2	3787.72	516.975	0	0	0.00000	0.00	0.00	0	134	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3787.72	516.918	2	1114	0.01940	0.00	0.00	0	134	0	6.40	0.00
1 38M	27.9	16.24	1029.1	3677.02	518.673	0	0	0.00000	0.00	0.00	0	134	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3677.02	518.636	2	1014	0.01810	0.00	0.00	0	134	0	6.20	0.00
1 40M	39.2	13.35	1068.3	3570.70	520.925	0	0	0.00000	0.00	0.00	0	134	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3570.70	520.868	2	1409	0.01550	0.00	0.00	0	134	0	6.10	0.00
1 42N	509.8	1062.00	509.8	1062.00	59.763	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	509.8	1062.00	59.834	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	49.50	549.3	1092.01	62.646	0	0	0.00000	0.00	0.00	0	134	10	6.60	0.01
1 45N	0.0	0.00	549.3	1092.01	62.648	2	684	0.05170	0.00	0.00	0	134	0	6.60	0.00
1 46N	38.9	40.76	588.2	1124.07	65.344	0	0	0.00000	0.00	0.00	0	134	12	6.50	0.01
1 47N	0.0	0.00	588.2	1124.07	65.337	2	702	0.02820	0.00	0.00	0	134	0	6.50	0.00
1 48N	37.9	31.26	626.1	1147.48	67.875	0	0	0.00000	0.00	0.00	0	134	15	6.40	0.01
1 49N	0.0	0.00	626.1	1147.48	67.853	2	938	0.02310	0.00	0.00	0	134	0	6.40	0.00
1 50N	32.3	11.57	658.4	1151.23	69.783	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 51N	0.0	0.00	658.4	1151.23	69.681	2	1933	0.00920	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   52M  TM 1160 QM  3468.39 QMN  4140.34 QN   671.95       1   52N  TN 1165 QN  1065.14 QN2134644736.00 Q‰M  1970.63 QÃ     0.00
*                                        1   52MN TMN 1161 QMN  4208.08 QM  3403.92 QN   804.15
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	658.4	1065.14	1726.7	4208.08	590.447	2	885	0.02080	0.00	0.00	0	134	0	6.20	0.00
1 53M	18.1	5.24	1744.8	4155.00	591.433	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01
1 54M	0.0	0.00	1744.8	4155.00	591.167	2	1259	0.00920	0.00	0.00	0	134	0	5.80	0.00
1 55O	35.7	12.79	35.7	12.79	2.133	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 56O	0.0	0.00	35.7	12.79	2.133	2	2369	0.01220	0.00	0.00	0	134	0	6.20	0.00
1 57B	40.0	25.81	118.8	37.51	6.297	0	0	0.00000	0.00	0.00	0	134	18	6.20	0.01
1 58O	0.0	0.00	35.7	9.59	2.123	2	1288	0.01250	0.00	0.00	0	134	0	6.20	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   59M  TM 1164 QM  4038.97 QMO  4041.48 QO     2.51       1   59O  TO 1191 QO     8.90 QO     0.00 Q²M   664.94 QÃ     0.00
*                                        1   59MO TMO 1164 QMO  4041.48 QM  4038.97 QO     2.51
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	8.90	1780.5	4041.48	592.935	2	934	0.01150	0.00	0.00	0	134	0	6.20	0.00
1 60M	21.5	5.54	1802.0	3993.24	594.052	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 61M	0.0	0.00	1802.0	3993.24	593.587	2	1075	0.01320	0.00	0.00	0	134	0	5.60	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	62M	0.0	0.00	1802.0	3905.35	593.586	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00

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******************************************************************************************************************************
*                                                         CONFLUENCE Q'S                                                     *
* 1   63K  TK 1176 QK   785.72 QKM  2842.47 QM  2056.75       1   63M  TM 1166 QM  3904.29 QM-
2864157508129430600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000.00 Q□K   199.27 QÃ     0.00
*                                         1   63KM TKM 1167 QKM  4118.69 QK   216.68 QM  3902.01
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	63KM	1802.0	3904.29	2525.8	4118.69	656.012	2	5	0.01000	0.00	0.00	0	134	0	5.60	0.00
1	64K	31.4	8.99	2557.2	4125.64	657.629	0	0	0.00000	0.00	0.00	0	134	27	5.50	0.01
1	65K	0.0	0.00	2557.2	4125.64	657.128	2	784	0.01050	0.00	0.00	0	134	0	5.50	0.00
1	66K	37.2	5.58	2594.4	4096.12	658.911	0	0	0.00000	0.00	0.00	0	124	30	5.40	0.01
1	67K	0.0	0.00	2594.4	4096.12	658.373	2	770	0.01080	0.00	0.00	0	124	0	5.40	0.00
1	68K	34.7	5.01	2629.1	4062.93	659.975	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	69K	0.0	0.00	2629.1	4062.93	659.144	2	992	0.01000	0.00	0.00	0	124	0	5.20	0.00
1	70K	19.1	2.65	2648.2	3997.06	659.992	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	71K	0.0	0.00	2648.2	3997.06	658.970	2	975	0.00800	0.00	0.00	0	124	0	5.00	0.00
1	72K	10.9	1.48	2659.1	3952.97	659.444	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1	73K	0.0	0.00	2659.1	3952.97	658.562	2	715	0.00700	0.00	0.00	0	124	0	4.90	0.00
1	74K	24.2	3.22	2683.3	3915.29	659.593	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	75K	0.0	0.00	2683.3	3915.29	658.428	2	1168	0.01280	0.00	0.00	0	124	0	4.80	0.00
1	76P	82.8	265.02	82.8	265.02	9.785	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1	77P	0.0	0.00	82.8	265.02	9.782	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	78P	26.5	7.36	109.3	265.93	11.391	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1	79P	0.0	0.00	109.3	265.93	11.386	2	1220	0.00870	0.00	0.00	0	124	0	6.60	0.00
1	80P	39.7	15.68	149.0	233.97	13.868	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	81P	0.0	0.00	149.0	233.97	13.838	2	2419	0.01850	0.00	0.00	0	134	0	6.40	0.00
1	82Q	40.0	22.18	40.0	22.18	2.688	0	0	0.00000	0.00	0.00	0	134	24	6.60	0.01
1	83Q	0.0	0.00	40.0	22.18	2.688	2	1582	0.02720	0.00	0.00	0	134	0	6.60	0.00
1	84Q	40.0	15.80	80.0	34.05	5.188	0	0	0.00000	0.00	0.00	0	134	30	6.40	0.01
1	85Q	0.0	0.00	80.0	34.05	5.185	2	1847	0.02110	0.00	0.00	0	134	0	6.40	0.00

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******************************************************************************************************************************
*                                                         CONFLUENCE Q'S                                                     *
* 1   86P  TP 1166 QP   185.84 QPQ   209.63 QQ    23.79       1   86Q  TQ 1174 QQ    31.43 QQ    -0.00 QÒP   111.72 QÃ     0.00
*                                         1   86PQ TPQ 1166 QPQ   209.63 QP   185.84 QQ    23.79
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	86PQ	80.0	31.43	229.0	209.63	18.998	2	949	0.02000	0.00	0.00	0	134	0	6.40	0.00
1	87P	40.0	29.16	269.0	208.95	21.654	0	0	0.00000	0.00	0.00	0	134	17	6.40	0.01
1	88P	0.0	0.00	269.0	208.95	21.612	2	856	0.01150	0.00	0.00	0	134	0	6.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 89P	40.0	14.32	309.0	210.18	23.878	0	0	0.00000	0.00	0.00	0	134	27	5.90	0.01
1 90P	0.0	0.00	309.0	210.18	23.815	2	1066	0.01300	0.00	0.00	0	134	0	5.90	0.00
1 91P	40.0	11.59	349.0	207.48	25.994	0	0	0.00000	0.00	0.00	0	134	30	5.80	0.01
1 92P	0.0	0.00	349.0	207.48	25.890	2	1323	0.01000	0.00	0.00	0	134	0	5.80	0.00
1 93P	38.5	9.92	387.5	199.46	27.890	0	0	0.00000	0.00	0.00	0	134	30	5.60	0.01
1 94P	0.0	0.00	387.5	199.46	27.781	2	1231	0.00980	0.00	0.00	0	134	0	5.60	0.00
1 95P	32.9	5.14	420.4	192.38	29.388	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 96P	0.0	0.00	420.4	192.38	29.101	2	853	0.00100	0.00	0.00	0	124	0	5.50	0.00
1 97P	32.3	4.75	452.7	169.94	30.621	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 98P	0.0	0.00	452.7	169.94	30.505	2	903	0.00830	0.00	0.00	0	124	0	5.30	0.00
1 99P	36.0	5.10	488.7	168.68	32.135	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01
1 100P	0.0	0.00	488.7	168.68	31.965	2	1173	0.00770	0.00	0.00	0	124	0	5.10	0.00
1 101P	22.9	3.18	511.6	164.81	32.982	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 102P	0.0	0.00	511.6	164.81	32.881	2	832	0.01210	0.00	0.00	0	124	0	5.00	0.00
1 103P	12.6	1.68	524.2	163.76	33.418	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1 104P	0.0	0.00	524.2	163.76	33.292	2	949	0.01050	0.00	0.00	0	124	0	4.80	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1175 QK 3872.15 QKP 3908.59 QP 36.45 1 105P TP 1216 QP 161.78
QP11762617223831078000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000.00 Q•K 724.92 QÃ 0.00
* 1 105KP TKP 1175 QKP 3908.59 QK 3872.15 QP 36.45
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	524.2	161.78	3207.5	3908.59	691.715	2	5	0.01000	0.00	0.00	0	124	0	4.80	0.00
1 106K	32.1	4.19	3239.6	3911.54	693.054	0	0	0.00000	0.00	0.00	0	124	30	4.70	0.01
1 107K	0.0	0.00	3239.6	3911.54	691.966	2	913	0.01100	0.00	0.00	0	124	0	4.70	0.00
1 108K	37.7	4.81	3277.3	3884.49	693.506	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 109K	0.0	0.00	3277.3	3884.49	692.083	2	1081	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 110K	39.4	4.81	3316.7	3838.95	693.622	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 111K	0.0	0.00	3316.7	3838.95	692.332	2	1044	0.01240	0.00	0.00	0	124	0	4.40	0.00
1 112K	39.8	4.64	3356.5	3820.46	693.816	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.01
1 113K	0.0	0.00	3356.5	3820.46	692.320	2	1121	0.01110	0.00	0.00	0	124	0	4.20	0.00
1 114K	40.0	4.44	3396.5	3784.19	693.740	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 115K	0.0	0.00	3396.5	3784.19	692.332	2	960	0.00950	0.00	0.00	0	124	0	4.00	0.00
1 116K	39.8	4.82	3436.3	3750.76	693.874	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.03
1 117K	0.0	0.00	3436.3	3750.17	692.432	2	919	0.00990	0.00	0.00	0	124	0	3.80	0.00
1 118K	39.8	5.74	3476.1	3731.92	694.270	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.07
1 119K	0.0	0.00	3476.1	3732.13	693.130	2	835	0.01980	0.00	0.00	0	134	0	3.60	0.00
1 120K	22.4	3.47	3498.5	3714.97	694.239	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.09
1 121K	0.0	0.00	3498.5	3715.24	692.469	2	1042	0.00770	0.00	0.00	0	134	0	3.50	0.00
1 122R	21.6	4.91	21.6	4.91	1.069	0	0	0.00000	0.00	0.00	0	134	30	5.40	0.01
1 123R	0.0	0.00	21.6	4.91	1.068	2	1940	0.01230	0.00	0.00	0	134	0	5.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	6.91	54.1	8.48	2.638	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 125R	0.0	0.00	54.1	8.48	2.636	2	1189	0.01320	0.00	0.00	0	134	0	5.30	0.00
1 126R	23.9	4.74	78.0	11.43	3.762	0	0	0.00000	0.00	0.00	0	134	30	5.20	0.01
1 127R	0.0	0.00	78.0	11.43	3.758	2	803	0.01280	0.00	0.00	0	134	0	5.20	0.00
1 128R	28.8	6.13	106.8	15.28	5.149	0	0	0.00000	0.00	0.00	0	134	30	5.30	0.01
1 129R	0.0	0.00	106.8	15.28	5.137	2	966	0.01040	0.00	0.00	0	134	0	5.30	0.00
1 130R	29.3	5.02	136.1	18.15	6.452	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 131R	0.0	0.00	136.1	18.15	6.437	2	795	0.00960	0.00	0.00	0	134	0	5.00	0.00
1 132R	27.5	4.35	163.6	20.48	7.641	0	0	0.00000	0.00	0.00	0	134	30	4.90	0.01
1 133R	0.0	0.00	163.6	20.48	7.623	2	759	0.01050	0.00	0.00	0	134	0	4.90	0.00
1 134R	27.3	3.97	190.9	22.37	8.790	0	0	0.00000	0.00	0.00	0	134	30	4.80	0.01
1 135R	0.0	0.00	190.9	22.37	8.768	2	740	0.00980	0.00	0.00	0	134	0	4.80	0.00
1 136R	29.4	3.92	220.3	24.00	9.995	0	0	0.00000	0.00	0.00	0	134	30	4.70	0.01
1 137R	0.0	0.00	220.3	24.00	9.964	2	849	0.01000	0.00	0.00	0	134	0	4.70	0.00
1 138R	36.9	4.71	257.2	25.75	11.471	0	0	0.00000	0.00	0.00	0	134	30	4.60	0.01
1 139R	0.0	0.00	257.2	25.75	11.430	2	960	0.01020	0.00	0.00	0	134	0	4.60	0.00
1 140R	27.6	3.37	284.8	26.55	12.508	0	0	0.00000	0.00	0.00	0	134	30	4.40	0.01
1 141R	0.0	0.00	284.8	26.55	12.477	2	705	0.01250	0.00	0.00	0	134	0	4.40	0.00
1 142R	36.0	4.20	320.8	28.26	13.819	0	0	0.00000	0.00	0.00	0	134	30	4.20	0.01
1 143R	0.0	0.00	320.8	28.26	13.766	2	966	0.01040	0.00	0.00	0	134	0	4.20	0.00
1 144R	39.6	4.29	360.4	29.65	15.138	0	0	0.00000	0.00	0.00	0	134	30	3.90	0.01
1 145R	0.0	0.00	360.4	29.65	15.067	2	1078	0.00940	0.00	0.00	0	134	0	3.90	0.00
1 146R	27.4	2.74	387.8	30.04	15.942	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.01
1 147R	0.0	0.00	387.8	30.04	15.902	2	693	0.01440	0.00	0.00	0	134	0	3.60	0.00
1 148R	27.6	4.19	415.4	31.47	17.242	0	0	0.00000	0.00	0.00	0	134	30	3.60	0.08
1 149R	0.0	0.00	415.4	31.47	16.907	2	1266	0.00970	0.00	0.00	0	134	0	3.60	0.00
1 150R	20.7	3.35	436.1	31.99	17.979	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1 151R	0.0	0.00	436.1	31.99	17.618	2	1379	0.00960	0.00	0.00	0	134	0	3.50	0.00

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*****************************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                         *
* 1  152K  TK 1188 QK  3679.75 QKR  3710.28 QR    30.52       1  152R  TR 1206 QR    31.91 QR     0.00 QžK  1994.74 QÃ     0.00
*                                        1  152KR TKR 1188 QKR  3710.28 QK  3679.75 QR    30.52
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	31.91	3934.6	3710.18	707.905	2	1212	0.00830	0.00	0.00	0	134	0	3.50	0.00
1 153K	38.8	5.56	3973.4	3668.34	709.683	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.08
1 154K	0.0	0.00	3973.4	3666.99	706.305	2	2066	0.00970	0.00	0.00	0	134	0	3.40	0.00
1 155K	27.3	3.98	4000.7	3565.11	707.579	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.09
1 156K	0.0	0.00	4000.7	3564.84	704.703	2	1710	0.00880	0.00	0.00	0	134	0	3.30	0.00
1 157K	22.1	3.27	4022.8	3496.53	705.749	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.10
1 158K	0.0	0.00	4022.8	3495.91	702.816	2	1697	0.00870	0.00	0.00	0	134	0	3.20	0.00
1 159S	39.3	3.60	39.3	3.60	1.151	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01
1 160S	0.0	0.00	39.3	3.60	0.680	2	2302	0.01100	0.00	0.00	0	134	0	3.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 161S	36.7	3.26	76.0	5.34	1.723	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 162S	0.0	0.00	76.0	5.34	1.272	2	2012	0.01210	0.00	0.00	0	134	0	3.20	0.00
1 163T	16.1	1.52	16.1	1.52	0.486	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 164T	0.0	0.00	16.1	1.52	0.295	2	1839	0.00880	0.00	0.00	0	134	0	3.40	0.00
1 165T	28.5	2.69	44.6	3.37	1.155	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1 166T	0.0	0.00	44.6	3.37	0.813	2	887	0.01190	0.00	0.00	0	134	0	3.40	0.00
1 167T	38.0	3.38	82.6	6.35	1.893	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 168T	0.0	0.00	82.6	6.35	1.432	2	1078	0.00880	0.00	0.00	0	134	0	3.20	0.00
1 169T	39.8	3.54	122.4	8.91	2.563	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 170T	0.0	0.00	122.4	8.91	2.072	2	1337	0.01200	0.00	0.00	0	134	0	3.20	0.00
1 171T	29.2	2.59	151.6	10.21	2.902	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 172T	0.0	0.00	151.6	10.21	2.528	2	1813	0.00980	0.00	0.00	0	134	0	3.20	0.00
1 173KS	76.0	4.98	4098.8	3439.44	704.088	0	0	0.00000	0.00	0.00	0	134	0	3.20	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  174K  TK 1201 QK  3439.44 QKT  3448.73 QT     9.28       1  174T  TT 1193 QT     9.55 QT    -0.00 QÎK  1692.65 QÃ     0.00
*                                      1  174KT TKT 1201 QKT  3448.73 QK  3439.44 QT     9.28
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	9.55	4250.4	3449.89	704.468	2	1115	0.00920	0.00	0.00	0	134	0	3.20	0.00
1 175K	28.5	2.53	4278.9	3428.83	705.278	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 176K	0.0	0.00	4278.9	3429.75	701.948	2	1834	0.00810	0.00	0.00	0	134	0	3.20	0.00
1 177U	29.4	2.61	29.4	2.61	0.835	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 178U	29.1	2.58	58.5	5.20	1.662	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1 179U	0.0	0.00	58.5	5.19	1.003	2	3079	0.00820	0.00	0.00	0	134	0	3.20	0.00
1 180U	31.8	3.87	90.3	6.07	2.241	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1 181U	0.0	0.00	90.3	6.07	2.005	2	2207	0.01120	0.00	0.00	0	134	0	3.20	0.00
1 182U	21.3	2.17	111.6	6.82	2.700	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1 183U	0.0	0.00	111.6	6.82	2.627	2	2448	0.00810	0.00	0.00	0	134	0	3.20	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  184K  TK 1206 QK  3362.38 QKU  3368.55 QU     6.17       1  184U  TU 1209 QU     6.19 QU-
2673445511529466700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q¦K
3261.64 QÃ     0.00
*                                      1  184KU TKU 1206 QKU  3368.55 QK  3362.38 QU     6.17
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	6.19	4390.5	3368.55	704.565	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinK-Burned.lac Run date: Tue Sep 29 17:50:22 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1	4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1	5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1	6B	39.7	9.68	39.7	9.68	2.215	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1	7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1	9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1	10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1	11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1	12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1	13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1	14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1	15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1	16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1	17B	39.1	10.15	78.8	19.83	4.472	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.09
1	18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1	19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1	20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1	21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1	22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL8914977127044708300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q¼     0.00
*                                       1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1	24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1	25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1	26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1	27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1	28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1160 QM 3496.79 QMN 5161.65 QN 1664.86 1 52N TN 1164 QN 2012.00 QN 0.00 QúM 2356.97 Q¼ 0.00
* 1 52MN TMN 1161 QMN 5281.20 QM 3429.58 QN 1851.61
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	54.01	8.150	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

****
* CONFLUENCE Q'S *
* 1 59M TM 1164 QM 5084.19 QMO 5089.91 QO 5.72 1 59O TO 1189 QO 16.56 QO -0.00 QMM 796.60 Q¼ 0.00
* 1 59MO TMO 1164 QMO 5089.91 QM 5084.19 QO 5.72
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857614958006060000000000000000000000000000000.00 QpK 369.02 Q¼ 0.00
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620980691239232.00 QMP 217.81 Q¼
0.00
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

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*****************************************************************************************************************
*                                                 CONFLUENCE Q'S                                                *
* 1  105K  TK 1175 QK  5134.47 QKP  5220.22 QP    85.76       1  105P  TP 1200 QP   420.09
QP29808771591790430000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000.00 Q□K  1446.68 Q¼    0.00
*                                   1  105KP TKP 1175 QKP  5220.22 QK  5134.47 QP    85.76
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	8.31	4118.6	5086.13	808.269	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.03
1 117K	0.0	0.00	4118.6	5086.26	806.739	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	10.73	4158.4	5055.13	809.017	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.07
1 119K	0.0	0.00	4158.4	5053.82	807.841	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	6.06	4180.8	5041.27	809.179	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.09
1 121K	0.0	0.00	4180.8	5040.80	807.172	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	7.61	415.4	77.88	25.128	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.08
1 149R	0.0	0.00	415.4	77.87	24.786	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	5.72	436.1	78.51	26.067	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1 151R	0.0	0.00	436.1	78.51	25.707	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  152K  TK 1186 QK  5003.68 QKR  5072.39 QR    68.71       1  152R  TR 1203 QR    78.04 QR    -0.00 QtK  2691.69 Q¼     0.00
*                                        1  152KR TKR 1186 QKR  5072.39 QK  5003.68 QR    68.71
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	78.04	4616.9	5072.21	830.469	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	9.85	4655.7	5028.92	832.625	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.08
1 154K	0.0	0.00	4655.7	5028.59	829.159	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	6.79	4683.0	4903.26	830.681	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.09
1 156K	0.0	0.00	4683.0	4902.18	827.670	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	5.39	4705.1	4831.68	828.903	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 158K	0.0	0.00	4705.1	4831.05	825.818	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.068	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00
1 161S	36.7	7.13	76.0	11.35	2.452	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.35	2.000	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.44	0.464	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.623	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.282	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.64	2.714	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.64	2.252	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.05	3.753	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.05	3.261	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.76	4.362	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.76	3.986	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.51	4781.1	4770.60	827.818	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1197 QK 4770.60 QKT 4789.83 QT 19.23 1 174T TT 1189 QT 20.35 QT -0.00 Q,K 1956.70 Q¼ 0.00
* 1 174KT TKT 1197 QKT 4789.83 QK 4770.60 QT 19.23
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.35	4932.7	4789.29	829.432	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4763.03	830.506	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4763.29	826.882	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.35	1.545	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	7.05	90.3	11.54	3.063	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1 181U	0.0	0.00	90.3	11.54	2.825	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.37	111.6	11.97	3.714	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1 183U	0.0	0.00	111.6	11.97	3.636	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1202 QK 4674.17 QKU 4685.06 QU 10.90 1 184U TU 1208 QU 11.02 QU 0.00 QNK 4149.28 Q¼ 0.00
* 1 184KU TKU 1202 QKU 4685.06 QK 4674.17 QU 10.90
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	11.02	5072.8	4685.06	830.508	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinK-Burned.lac Run date: Tue Sep 29 17:50:22 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	464.4	1163.80	464.4	1163.80	54.672	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	464.4	1163.80	54.646	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	18.76	485.9	1171.54	56.399	0	0	0.00000	0.00	0.00	0	332	12	6.40	0.01
1	4K	0.0	0.00	485.9	1171.54	56.402	2	571	0.03050	0.00	0.00	0	332	0	6.40	0.00
1	5K	39.6	16.66	525.5	1181.70	59.476	0	0	0.00000	0.00	0.00	0	332	30	6.30	0.01
1	6B	39.7	9.68	39.7	9.68	2.215	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1	6K	0.0	0.00	525.5	1181.70	59.458	2	1014	0.02040	0.00	0.00	0	336	0	3.20	0.00
1	7K	39.6	16.25	565.1	1176.45	62.470	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1	8K	0.0	0.00	565.1	1176.45	62.465	2	1054	0.01830	0.00	0.00	0	332	0	6.20	0.00
1	9K	30.7	21.94	595.8	1174.58	65.144	0	0	0.00000	0.00	0.00	0	336	21	6.00	0.01
1	10K	0.0	0.00	595.8	1174.58	65.117	2	957	0.01610	0.00	0.00	0	336	0	6.00	0.00
1	11K	33.2	17.32	629.0	1170.65	67.905	0	0	0.00000	0.00	0.00	0	336	30	5.90	0.01
1	12K	0.0	0.00	629.0	1170.65	67.821	2	1511	0.01470	0.00	0.00	0	336	0	5.90	0.00
1	13L	28.8	39.93	28.8	39.93	2.955	0	0	0.00000	0.00	0.00	0	336	12	6.60	0.01
1	14L	0.0	0.00	28.8	39.93	2.954	2	659	0.02120	0.00	0.00	0	336	0	6.60	0.00
1	15L	24.8	33.54	53.6	69.08	5.444	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1	16L	0.0	0.00	53.6	69.08	5.443	2	724	0.02090	0.00	0.00	0	336	0	6.50	0.00
1	17B	39.1	10.15	78.8	19.83	4.472	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.09
1	18L	0.0	0.00	53.6	66.73	5.441	2	1152	0.01700	0.00	0.00	0	336	0	3.40	0.00
1	19L	21.3	12.42	74.9	72.45	7.360	0	0	0.00000	0.00	0.00	0	336	29	6.20	0.01
1	20L	0.0	0.00	74.9	72.45	7.355	2	1374	0.01640	0.00	0.00	0	336	0	6.20	0.00
1	21L	17.9	9.61	92.8	74.51	8.894	0	0	0.00000	0.00	0.00	0	336	30	6.00	0.01
1	22L	0.0	0.00	92.8	74.51	8.872	2	1523	0.01560	0.00	0.00	0	336	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   23K  TK 1165 QK  1118.49 QKL  1148.08 QL    29.58       1   23L  TL 1178 QL    68.71
QL8914977127044708300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000.00 QAK   307.25 Q¼     0.00
*                                       1   23KL TKL 1165 QKL  1148.08 QK  1118.49 QL    29.58
*****************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	68.71	721.8	1148.08	76.609	2	709	0.01300	0.00	0.00	0	336	0	6.00	0.00
1	24K	30.9	19.62	752.7	1146.79	79.061	0	0	0.00000	0.00	0.00	0	336	21	5.60	0.01
1	25K	0.0	0.00	752.7	1146.79	78.955	2	778	0.01320	0.00	0.00	0	336	0	5.60	0.00
1	26K	32.3	15.86	785.0	1149.76	81.484	0	0	0.00000	0.00	0.00	0	336	29	5.60	0.01
1	27K	0.0	0.00	785.0	1149.76	81.368	2	881	0.01070	0.00	0.00	0	336	0	5.60	0.00
1	28K	28.9	13.40	813.9	1141.33	83.573	0	0	0.00000	0.00	0.00	0	336	30	5.50	0.01
1	29K	0.0	0.00	813.9	1141.33	83.436	2	934	0.01050	0.00	0.00	0	336	0	5.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 30K	21.2	9.54	835.1	1127.02	85.013	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 31K	0.0	0.00	835.1	1127.02	84.858	2	853	0.01320	0.00	0.00	0	336	0	5.40	0.00
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	26.73	971.7	3859.04	516.155	0	0	0.00000	0.00	0.00	0	336	21	6.60	0.01
1 35M	0.0	0.00	971.7	3859.04	516.045	2	1319	0.02170	0.00	0.00	0	336	0	6.60	0.00
1 36M	29.5	24.54	1001.2	3800.66	518.869	0	0	0.00000	0.00	0.00	0	336	20	6.40	0.01
1 37M	0.0	0.00	1001.2	3800.66	518.813	2	1114	0.01940	0.00	0.00	0	336	0	6.40	0.00
1 38M	27.9	21.96	1029.1	3696.07	521.367	0	0	0.00000	0.00	0.00	0	336	20	6.20	0.01
1 39M	0.0	0.00	1029.1	3696.07	521.331	2	1014	0.01810	0.00	0.00	0	336	0	6.20	0.00
1 40M	39.2	21.64	1068.3	3597.16	524.778	0	0	0.00000	0.00	0.00	0	336	30	6.10	0.01
1 41M	0.0	0.00	1068.3	3597.16	524.719	2	1409	0.01550	0.00	0.00	0	336	0	6.10	0.00
1 42N	963.8	2007.76	963.8	2007.76	112.985	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	963.8	2007.76	113.001	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	63.18	1003.3	2046.32	117.082	0	0	0.00000	0.00	0.00	0	336	10	6.60	0.01
1 45N	0.0	0.00	1003.3	2046.32	117.094	2	684	0.05170	0.00	0.00	0	336	0	6.60	0.00
1 46N	38.9	52.60	1042.2	2094.02	121.000	0	0	0.00000	0.00	0.00	0	336	12	6.50	0.01
1 47N	0.0	0.00	1042.2	2094.02	120.998	2	702	0.02820	0.00	0.00	0	336	0	6.50	0.00
1 48N	37.9	40.42	1080.1	2122.67	124.672	0	0	0.00000	0.00	0.00	0	336	15	6.40	0.01
1 49N	0.0	0.00	1080.1	2122.67	124.643	2	938	0.02310	0.00	0.00	0	336	0	6.40	0.00
1 50N	32.3	18.33	1112.4	2128.49	127.548	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 51N	0.0	0.00	1112.4	2128.49	127.453	2	1933	0.00920	0.00	0.00	0	336	0	6.20	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1160 QM 3496.79 QMN 5161.65 QN 1664.86 1 52N TN 1164 QN 2012.00 QN 0.00 QúM 2356.97 Q¼ 0.00
* 1 52MN TMN 1161 QMN 5281.20 QM 3429.58 QN 1851.61
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	1112.4	2012.00	2180.7	5281.20	652.065	2	885	0.02080	0.00	0.00	0	336	0	6.20	0.00
1 53M	18.1	9.18	2198.8	5223.26	653.550	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 54M	0.0	0.00	2198.8	5223.26	653.197	2	1259	0.00920	0.00	0.00	0	336	0	5.80	0.00
1 55O	35.7	20.26	35.7	20.26	3.211	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 56O	0.0	0.00	35.7	20.26	3.206	2	2369	0.01220	0.00	0.00	0	336	0	6.20	0.00
1 57B	40.0	34.29	118.8	54.01	8.150	0	0	0.00000	0.00	0.00	0	336	18	6.20	0.01
1 58O	0.0	0.00	35.7	17.23	3.194	2	1288	0.01250	0.00	0.00	0	336	0	6.20	0.00

****
* CONFLUENCE Q'S *
* 1 59M TM 1164 QM 5084.19 QMO 5089.91 QO 5.72 1 59O TO 1189 QO 16.56 QO -0.00 QMM 796.60 Q¼ 0.00
* 1 59MO TMO 1164 QMO 5089.91 QM 5084.19 QO 5.72
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	16.56	2234.5	5089.91	656.007	2	934	0.01150	0.00	0.00	0	336	0	6.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 60M	21.5	10.28	2256.0	5045.20	657.688	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 61M	0.0	0.00	2256.0	5045.20	657.192	2	1075	0.01320	0.00	0.00	0	336	0	5.60	0.00
1 62M	0.0	0.00	2256.0	4969.15	657.190	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1174 QK 1112.39 QKM 4119.87 QM 3007.48 1 63M TM 1166 QM 4968.42
QM309857614958006060000000000000000000000000000000.00 QpK 369.02 Q¼ 0.00
* 1 63KM TKM 1166 QKM 5337.44 QK 369.02 QM 4968.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	2256.0	4968.42	3091.1	5337.44	742.045	2	5	0.01000	0.00	0.00	0	336	0	5.60	0.00
1 64K	31.4	15.82	3122.5	5350.81	744.451	0	0	0.00000	0.00	0.00	0	336	27	5.50	0.01
1 65K	0.0	0.00	3122.5	5350.81	743.916	2	784	0.01050	0.00	0.00	0	336	0	5.50	0.00
1 66K	37.2	12.30	3159.7	5322.79	746.293	0	0	0.00000	0.00	0.00	0	332	30	5.40	0.01
1 67K	0.0	0.00	3159.7	5322.79	745.721	2	770	0.01080	0.00	0.00	0	332	0	5.40	0.00
1 68K	34.7	10.82	3194.4	5300.53	747.836	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1 69K	0.0	0.00	3194.4	5300.53	746.945	2	992	0.01000	0.00	0.00	0	332	0	5.20	0.00
1 70K	19.1	5.61	3213.5	5261.43	748.054	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 71K	0.0	0.00	3213.5	5261.43	746.955	2	975	0.00800	0.00	0.00	0	332	0	5.00	0.00
1 72K	10.9	3.10	3224.4	5211.72	747.572	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 73K	0.0	0.00	3224.4	5211.72	746.646	2	715	0.00700	0.00	0.00	0	332	0	4.90	0.00
1 74K	24.2	6.68	3248.6	5184.45	747.982	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 75K	0.0	0.00	3248.6	5184.45	746.746	2	1168	0.01280	0.00	0.00	0	332	0	4.80	0.00
1 76P	199.8	639.51	199.8	639.51	23.612	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	199.8	639.51	23.615	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	12.01	226.3	640.41	25.799	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 79P	0.0	0.00	226.3	640.41	25.798	2	1220	0.00870	0.00	0.00	0	332	0	6.60	0.00
1 80P	39.7	23.78	266.0	582.37	29.530	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 81P	0.0	0.00	266.0	582.37	29.477	2	2419	0.01850	0.00	0.00	0	336	0	6.40	0.00
1 82Q	40.0	30.24	40.0	30.24	3.966	0	0	0.00000	0.00	0.00	0	336	24	6.60	0.01
1 83Q	0.0	0.00	40.0	30.24	3.967	2	1582	0.02720	0.00	0.00	0	336	0	6.60	0.00
1 84Q	40.0	23.96	80.0	51.25	7.727	0	0	0.00000	0.00	0.00	0	336	30	6.40	0.01
1 85Q	0.0	0.00	80.0	51.25	7.723	2	1847	0.02110	0.00	0.00	0	336	0	6.40	0.00

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* CONFLUENCE Q'S *
* 1 86P TP 1163 QP 491.40 QPQ 528.64 QQ 37.25 1 86Q TQ 1172 QQ 49.03 QQ-29620980691239232.00 QMP 217.81 Q¼
0.00
* 1 86PQ TPQ 1163 QPQ 528.64 QP 491.40 QQ 37.25
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	49.03	346.0	528.64	37.176	2	949	0.02000	0.00	0.00	0	336	0	6.40	0.00
1 87P	40.0	37.99	386.0	543.93	41.031	0	0	0.00000	0.00	0.00	0	336	17	6.40	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 88P	0.0	0.00	386.0	543.93	40.986	2	856	0.01150	0.00	0.00	0	336	0	6.40	0.00
1 89P	40.0	22.69	426.0	546.53	44.361	0	0	0.00000	0.00	0.00	0	336	27	5.90	0.01
1 90P	0.0	0.00	426.0	546.53	44.278	2	1066	0.01300	0.00	0.00	0	336	0	5.90	0.00
1 91P	40.0	20.28	466.0	542.68	47.559	0	0	0.00000	0.00	0.00	0	336	30	5.80	0.01
1 92P	0.0	0.00	466.0	542.68	47.417	2	1323	0.01000	0.00	0.00	0	336	0	5.80	0.00
1 93P	38.5	18.40	504.5	525.28	50.427	0	0	0.00000	0.00	0.00	0	336	30	5.60	0.01
1 94P	0.0	0.00	504.5	525.28	50.270	2	1231	0.00980	0.00	0.00	0	336	0	5.60	0.00
1 95P	32.9	11.19	537.4	509.90	52.420	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 96P	0.0	0.00	537.4	509.90	52.032	2	853	0.00100	0.00	0.00	0	332	0	5.50	0.00
1 97P	32.3	10.37	569.7	445.15	54.048	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01
1 98P	0.0	0.00	569.7	445.15	53.884	2	903	0.00830	0.00	0.00	0	332	0	5.30	0.00
1 99P	36.0	10.90	605.7	440.16	56.026	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 100P	0.0	0.00	605.7	440.16	55.805	2	1173	0.00770	0.00	0.00	0	332	0	5.10	0.00
1 101P	22.9	6.73	628.6	429.14	57.135	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1 102P	0.0	0.00	628.6	429.14	57.005	2	832	0.01210	0.00	0.00	0	332	0	5.00	0.00
1 103P	12.6	3.48	641.2	425.68	57.700	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1 104P	0.0	0.00	641.2	425.68	57.528	2	949	0.01050	0.00	0.00	0	332	0	4.80	0.00

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*****************************************************************************************************************************
*                                                CONFLUENCE Q'S                                                              *
* 1  105K  TK 1175 QK  5134.47 QKP  5220.22 QP    85.76       1  105P  TP 1200 QP   420.09
QP2980877159179043000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000.00 Q□K  1446.68 Q¼     0.00
*                                         1  105KP TKP 1175 QKP  5220.22 QK  5134.47 QP    85.76
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	641.2	420.09	3889.8	5220.22	804.268	2	5	0.01000	0.00	0.00	0	332	0	4.80	0.00
1 106K	32.1	8.58	3921.9	5226.60	805.996	0	0	0.00000	0.00	0.00	0	332	30	4.70	0.01
1 107K	0.0	0.00	3921.9	5226.60	804.843	2	913	0.01100	0.00	0.00	0	332	0	4.70	0.00
1 108K	37.7	9.76	3959.6	5208.79	806.819	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 109K	0.0	0.00	3959.6	5208.79	805.293	2	1081	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 110K	39.4	9.54	3999.0	5164.34	807.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 111K	0.0	0.00	3999.0	5164.34	805.887	2	1044	0.01240	0.00	0.00	0	332	0	4.40	0.00
1 112K	39.8	8.99	4038.8	5148.08	807.755	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.01
1 113K	0.0	0.00	4038.8	5148.08	806.157	2	1121	0.01110	0.00	0.00	0	332	0	4.20	0.00
1 114K	40.0	8.41	4078.8	5103.80	807.928	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.01
1 115K	0.0	0.00	4078.8	5103.80	806.420	2	960	0.00950	0.00	0.00	0	332	0	4.00	0.00
1 116K	39.8	8.31	4118.6	5086.13	808.269	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.03
1 117K	0.0	0.00	4118.6	5086.26	806.739	2	919	0.00990	0.00	0.00	0	332	0	3.80	0.00
1 118K	39.8	10.73	4158.4	5055.13	809.017	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.07
1 119K	0.0	0.00	4158.4	5053.82	807.841	2	835	0.01980	0.00	0.00	0	336	0	3.60	0.00
1 120K	22.4	6.06	4180.8	5041.27	809.179	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.09
1 121K	0.0	0.00	4180.8	5040.80	807.172	2	1042	0.00770	0.00	0.00	0	336	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 122R	21.6	9.72	21.6	9.72	1.607	0	0	0.00000	0.00	0.00	0	336	30	5.40	0.01
1 123R	0.0	0.00	21.6	9.72	1.606	2	1940	0.01230	0.00	0.00	0	336	0	5.40	0.00
1 124R	32.5	14.17	54.1	19.66	3.964	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 125R	0.0	0.00	54.1	19.66	3.961	2	1189	0.01320	0.00	0.00	0	336	0	5.30	0.00
1 126R	23.9	10.10	78.0	26.95	5.651	0	0	0.00000	0.00	0.00	0	336	30	5.20	0.01
1 127R	0.0	0.00	78.0	26.95	5.646	2	803	0.01280	0.00	0.00	0	336	0	5.20	0.00
1 128R	28.8	12.56	106.8	36.42	7.735	0	0	0.00000	0.00	0.00	0	336	30	5.30	0.01
1 129R	0.0	0.00	106.8	36.42	7.722	2	966	0.01040	0.00	0.00	0	336	0	5.30	0.00
1 130R	29.3	11.60	136.1	44.23	9.687	0	0	0.00000	0.00	0.00	0	336	30	5.00	0.01
1 131R	0.0	0.00	136.1	44.23	9.671	2	795	0.00960	0.00	0.00	0	336	0	5.00	0.00
1 132R	27.5	10.53	163.6	50.67	11.466	0	0	0.00000	0.00	0.00	0	336	30	4.90	0.01
1 133R	0.0	0.00	163.6	50.67	11.447	2	759	0.01050	0.00	0.00	0	336	0	4.90	0.00
1 134R	27.3	10.11	190.9	56.25	13.181	0	0	0.00000	0.00	0.00	0	336	30	4.80	0.01
1 135R	0.0	0.00	190.9	56.25	13.156	2	740	0.00980	0.00	0.00	0	336	0	4.80	0.00
1 136R	29.4	10.52	220.3	61.44	14.972	0	0	0.00000	0.00	0.00	0	336	30	4.70	0.01
1 137R	0.0	0.00	220.3	61.44	14.938	2	849	0.01000	0.00	0.00	0	336	0	4.70	0.00
1 138R	36.9	12.74	257.2	66.99	17.154	0	0	0.00000	0.00	0.00	0	336	30	4.60	0.01
1 139R	0.0	0.00	257.2	66.99	17.107	2	960	0.01020	0.00	0.00	0	336	0	4.60	0.00
1 140R	27.6	8.87	284.8	69.65	18.671	0	0	0.00000	0.00	0.00	0	336	30	4.40	0.01
1 141R	0.0	0.00	284.8	69.65	18.636	2	705	0.01250	0.00	0.00	0	336	0	4.40	0.00
1 142R	36.0	10.73	320.8	73.60	20.555	0	0	0.00000	0.00	0.00	0	336	30	4.20	0.01
1 143R	0.0	0.00	320.8	73.60	20.495	2	966	0.01040	0.00	0.00	0	336	0	4.20	0.00
1 144R	39.6	10.48	360.4	76.23	22.413	0	0	0.00000	0.00	0.00	0	336	30	3.90	0.01
1 145R	0.0	0.00	360.4	76.23	22.334	2	1078	0.00940	0.00	0.00	0	336	0	3.90	0.00
1 146R	27.4	6.39	387.8	76.38	23.532	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.01
1 147R	0.0	0.00	387.8	76.38	23.487	2	693	0.01440	0.00	0.00	0	336	0	3.60	0.00
1 148R	27.6	7.61	415.4	77.88	25.128	0	0	0.00000	0.00	0.00	0	336	30	3.60	0.08
1 149R	0.0	0.00	415.4	77.87	24.786	2	1266	0.00970	0.00	0.00	0	336	0	3.60	0.00
1 150R	20.7	5.72	436.1	78.51	26.067	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1 151R	0.0	0.00	436.1	78.51	25.707	2	1379	0.00960	0.00	0.00	0	336	0	3.50	0.00

```
*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  152K  TK 1186 QK  5003.68 QKR  5072.39 QR    68.71       1  152R  TR 1203 QR    78.04 QR    -0.00 QtK  2691.69 Q¼     0.00
*                                      1  152KR TKR 1186 QKR  5072.39 QK  5003.68 QR    68.71
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	78.04	4616.9	5072.21	830.469	2	1212	0.00830	0.00	0.00	0	336	0	3.50	0.00
1 153K	38.8	9.85	4655.7	5028.92	832.625	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.08
1 154K	0.0	0.00	4655.7	5028.59	829.159	2	2066	0.00970	0.00	0.00	0	336	0	3.40	0.00
1 155K	27.3	6.79	4683.0	4903.26	830.681	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.09
1 156K	0.0	0.00	4683.0	4902.18	827.670	2	1710	0.00880	0.00	0.00	0	336	0	3.30	0.00
1 157K	22.1	5.39	4705.1	4831.68	828.903	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.10
1 158K	0.0	0.00	4705.1	4831.05	825.818	2	1697	0.00870	0.00	0.00	0	336	0	3.20	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 159S	39.3	8.00	39.3	8.00	1.540	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01
1 160S	0.0	0.00	39.3	8.00	1.068	2	2302	0.01100	0.00	0.00	0	336	0	3.30	0.00
1 161S	36.7	7.13	76.0	11.35	2.452	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 162S	0.0	0.00	76.0	11.35	2.000	2	2012	0.01210	0.00	0.00	0	336	0	3.20	0.00
1 163T	16.1	3.43	16.1	3.43	0.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 164T	0.0	0.00	16.1	3.44	0.464	2	1839	0.00880	0.00	0.00	0	336	0	3.40	0.00
1 165T	28.5	6.08	44.6	7.28	1.623	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1 166T	0.0	0.00	44.6	7.28	1.282	2	887	0.01190	0.00	0.00	0	336	0	3.40	0.00
1 167T	38.0	7.38	82.6	13.64	2.714	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 168T	0.0	0.00	82.6	13.64	2.252	2	1078	0.00880	0.00	0.00	0	336	0	3.20	0.00
1 169T	39.8	7.73	122.4	19.05	3.753	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 170T	0.0	0.00	122.4	19.05	3.261	2	1337	0.01200	0.00	0.00	0	336	0	3.20	0.00
1 171T	29.2	5.67	151.6	21.76	4.362	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 172T	0.0	0.00	151.6	21.76	3.986	2	1813	0.00980	0.00	0.00	0	336	0	3.20	0.00
1 173KS	76.0	10.51	4781.1	4770.60	827.818	0	0	0.00000	0.00	0.00	0	336	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1197 QK 4770.60 QKT 4789.83 QT 19.23 1 174T TT 1189 QT 20.35 QT -0.00 Q,K 1956.70 Q¼ 0.00
* 1 174KT TKT 1197 QKT 4789.83 QK 4770.60 QT 19.23
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	20.35	4932.7	4789.29	829.432	2	1115	0.00920	0.00	0.00	0	336	0	3.20	0.00
1 175K	28.5	5.53	4961.2	4763.03	830.506	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 176K	0.0	0.00	4961.2	4763.29	826.882	2	1834	0.00810	0.00	0.00	0	336	0	3.20	0.00
1 177U	29.4	5.71	29.4	5.71	1.109	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 178U	29.1	5.65	58.5	11.36	2.206	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1 179U	0.0	0.00	58.5	11.35	1.545	2	3079	0.00820	0.00	0.00	0	336	0	3.20	0.00
1 180U	31.8	7.05	90.3	11.54	3.063	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1 181U	0.0	0.00	90.3	11.54	2.825	2	2207	0.01120	0.00	0.00	0	336	0	3.20	0.00
1 182U	21.3	4.37	111.6	11.97	3.714	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1 183U	0.0	0.00	111.6	11.97	3.636	2	2448	0.00810	0.00	0.00	0	336	0	3.20	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1202 QK 4674.17 QKU 4685.06 QU 10.90 1 184U TU 1208 QU 11.02 QU 0.00 QNK 4149.28 Q¼ 0.00
* 1 184KU TKU 1202 QKU 4685.06 QK 4674.17 QU 10.90
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	11.02	5072.8	4685.06	830.508	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 4685.06 x 1.025 = 4802.19 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinV.lac Run date: Tue Sep 29 10:03:57 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	3.21	23.8	3.21	1.027	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.08
1	2V	0.0	0.00	23.8	2.88	0.835	2	1412	0.01030	0.00	0.00	0	134	0	3.20	0.00
1	3V	39.4	4.02	63.2	5.67	2.120	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.03
1	4V	0.0	0.00	63.2	5.49	1.943	2	1046	0.01150	0.00	0.00	0	134	0	3.20	0.00
1	5V	39.9	4.86	103.1	8.97	3.497	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	6V	0.0	0.00	103.1	7.82	3.089	2	892	0.01000	0.00	0.00	0	134	0	3.20	0.00
1	7V	40.0	4.87	143.1	10.62	4.647	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.06
1	8V	0.0	0.00	143.1	9.37	4.205	2	964	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinV-Burned.lac Run date: Tue Sep 29 10:48:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	5.54	23.8	5.54	1.232	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.08
1	2V	0.0	0.00	23.8	5.13	1.041	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	8.08	63.2	10.67	2.685	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4V	0.0	0.00	63.2	10.47	2.510	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	8.85	103.1	16.71	4.416	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	6V	0.0	0.00	103.1	15.11	4.017	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	8.87	143.1	19.58	5.927	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	8V	0.0	0.00	143.1	17.82	5.500	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinV-Burned.lac Run date: Tue Sep 29 10:48:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	5.54	23.8	5.54	1.232	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.08
1	2V	0.0	0.00	23.8	5.13	1.041	2	1412	0.01030	0.00	0.00	0	336	0	3.20	0.00
1	3V	39.4	8.08	63.2	10.67	2.685	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.03
1	4V	0.0	0.00	63.2	10.47	2.510	2	1046	0.01150	0.00	0.00	0	336	0	3.20	0.00
1	5V	39.9	8.85	103.1	16.71	4.416	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	6V	0.0	0.00	103.1	15.11	4.017	2	892	0.01000	0.00	0.00	0	336	0	3.20	0.00
1	7V	40.0	8.87	143.1	19.58	5.927	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.06
1	8V	0.0	0.00	143.1	17.82	5.500	2	964	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 17.82 x 1.025 = 18.27 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinW.lac Run date: Tue Sep 29 16:49:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	3.48	24.1	3.48	1.113	0	0	0.00000	0.00	0.00	0	124	30	5.20	0.01
1	2B	27.6	2.45	27.6	2.45	0.784	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01
1	2W	0.0	0.00	24.1	3.48	1.111	2	1848	0.01050	0.00	0.00	0	134	0	3.20	0.00
1	3W	22.3	3.10	46.4	5.40	2.101	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	4B	15.1	1.43	42.7	3.88	1.240	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01
1	4W	0.0	0.00	46.4	5.40	2.098	2	1007	0.01070	0.00	0.00	0	134	0	3.40	0.00
1	5W	26.9	3.58	73.3	7.97	3.245	0	0	0.00000	0.00	0.00	0	124	30	4.80	0.01
1	6W	0.0	0.00	73.3	7.97	3.236	2	1111	0.00990	0.00	0.00	0	124	0	4.80	0.00
1	7W	24.7	3.15	98.0	10.06	4.244	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1	8W	0.0	0.00	98.0	10.06	4.224	2	1118	0.00710	0.00	0.00	0	124	0	4.60	0.00
1	9W	35.1	4.29	133.1	12.33	5.595	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1	10W	0.0	0.00	133.1	12.33	5.566	2	1301	0.01000	0.00	0.00	0	124	0	4.40	0.00
1	11W	24.8	3.18	157.9	13.62	6.583	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.02
1	12W	0.0	0.00	157.9	13.61	6.518	2	779	0.00750	0.00	0.00	0	124	0	4.30	0.00
1	13W	36.2	5.47	194.1	16.86	8.267	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.05
1	14W	0.0	0.00	194.1	16.83	8.079	2	915	0.01440	0.00	0.00	0	124	0	4.20	0.00
1	15W	33.0	5.29	227.1	20.34	9.772	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.07
1	16W	0.0	0.00	227.1	20.24	9.450	2	796	0.01390	0.00	0.00	0	124	0	4.00	0.00
1	17W	39.5	6.94	266.6	25.01	11.671	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.10
1	18W	0.0	0.00	266.6	24.66	11.160	2	930	0.01200	0.00	0.00	0	124	0	3.80	0.00
1	19W	32.8	5.46	299.4	27.59	12.907	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	20W	0.0	0.00	299.4	27.17	12.460	2	774	0.00940	0.00	0.00	0	124	0	3.60	0.00
1	21W	35.4	5.90	334.8	29.73	14.345	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	22W	0.0	0.00	334.8	29.16	13.829	2	1066	0.00820	0.00	0.00	0	124	0	3.60	0.00
1	23W	19.1	3.09	353.9	29.72	14.818	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1	24W	0.0	0.00	353.9	29.67	14.492	2	860	0.00630	0.00	0.00	0	134	0	3.50	0.00
1	25W	11.4	1.85	365.3	29.98	15.082	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.10
1	26W	0.0	0.00	365.3	29.97	14.865	2	684	0.00730	0.00	0.00	0	134	0	3.50	0.00
1	27W	22.7	3.57	388.0	30.68	16.007	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.10
1	28W	0.0	0.00	388.0	30.63	15.557	2	1949	0.01030	0.00	0.00	0	134	0	3.40	0.00
1	29X	7.3	1.22	7.3	1.22	0.389	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	30X	0.0	0.00	7.3	1.21	0.297	2	1088	0.00760	0.00	0.00	0	124	0	3.60	0.00
1	31X	23.1	3.74	30.4	4.41	1.493	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1	32X	0.0	0.00	30.4	4.39	1.212	2	882	0.01350	0.00	0.00	0	124	0	3.50	0.00
1	33X	13.0	2.04	43.4	6.04	1.866	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1	34X	0.0	0.00	43.4	6.03	1.706	2	429	0.01290	0.00	0.00	0	124	0	3.40	0.00
1	35X	18.5	2.91	61.9	8.40	2.636	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1	36X	0.0	0.00	61.9	8.36	2.413	2	1115	0.01280	0.00	0.00	0	124	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

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*****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                           *
* 1   37W  TW 1224 QW    30.33 QWX    33.75 QX     3.42       1   37X  TX 1184 QX     8.17
QX26846896841390005000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000.00 QHW    23.92 Qç     0.00
*                                         1   37WX TWX 1216 QWX    34.03 QW    29.90 QX     4.13
*****************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	8.17	449.9	34.02	17.715	2	642	0.00980	0.00	0.00	0	124	0	3.40	0.00
1	38W	19.2	2.41	469.1	34.46	18.486	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.06
1	39W	0.0	0.00	469.1	34.45	18.139	2	1430	0.00960	0.00	0.00	0	124	0	3.30	0.00
1	40Y	6.4	1.07	6.4	1.07	0.341	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	41Y	0.0	0.00	6.4	1.07	0.254	2	970	0.00890	0.00	0.00	0	124	0	3.60	0.00
1	42Y	11.2	1.87	17.6	2.60	0.851	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	43Y	0.0	0.00	17.6	2.60	0.710	2	831	0.01140	0.00	0.00	0	124	0	3.60	0.00
1	44Y	15.6	2.53	33.2	4.66	1.518	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1	45Y	0.0	0.00	33.2	4.65	1.327	2	883	0.01070	0.00	0.00	0	124	0	3.50	0.00
1	46Y	9.5	1.49	42.7	5.64	1.805	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.10
1	47Y	0.0	0.00	42.7	5.63	1.684	2	390	0.01680	0.00	0.00	0	124	0	3.40	0.00
1	48Y	13.1	2.00	55.8	7.11	2.324	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.10
1	49Y	0.0	0.00	55.8	7.09	2.163	2	658	0.01670	0.00	0.00	0	124	0	3.30	0.00
1	50Y	24.4	2.90	80.2	9.16	3.090	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.05
1	51Y	0.0	0.00	80.2	9.15	2.956	2	1416	0.01050	0.00	0.00	0	124	0	3.30	0.00

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*****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                           *
* 1   52W  TW 1231 QW    34.39 QWY    38.92 QY     4.52       1   52Y  TY 1188 QY     8.84 QY-14632376.00 Q□W    28.90 Qç     0.00
*                                         1   52WY TWY 1206 QWY    40.35 QW    33.22 QY     7.13
*****************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	8.84	549.3	40.35	20.839	2	1623	0.00800	0.00	0.00	0	124	0	3.30	0.00
1	53Z	12.8	2.37	12.8	2.37	0.758	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.10
1	54Z	0.0	0.00	12.8	2.37	0.757	2	1273	0.01320	0.00	0.00	0	124	0	4.00	0.00
1	55Z	24.9	4.49	37.7	6.23	2.194	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.10
1	56Z	0.0	0.00	37.7	6.23	2.193	2	1086	0.01170	0.00	0.00	0	124	0	3.90	0.00
1	57Z	25.8	4.42	63.5	9.77	3.605	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.10
1	58Z	0.0	0.00	63.5	9.77	3.603	2	863	0.01350	0.00	0.00	0	124	0	3.70	0.00
1	59Z	30.1	5.01	93.6	13.79	5.206	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.10
1	60Z	0.0	0.00	93.6	13.79	5.199	2	922	0.01230	0.00	0.00	0	124	0	3.60	0.00
1	61Z	28.0	4.53	121.6	17.15	6.649	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1	62Z	0.0	0.00	121.6	17.15	6.634	2	907	0.01020	0.00	0.00	0	124	0	3.50	0.00
1	63Z	32.7	5.29	154.3	20.69	8.328	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.10
1	64Z	0.0	0.00	154.3	19.24	7.282	2	1048	0.01130	0.00	0.00	0	124	0	3.50	0.00
1	65Z	25.7	3.14	180.0	19.91	8.288	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.05

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV	
1 66Z	0.0	0.00	180.0	19.15	0.000	1071689077	1003	0.01240	0.00	0.00	0	134	0	3.40	0.00	
1 67Z	9.1	0.86	189.1	0.86	0.275	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.01	
1 68Z	0.0	0.00	189.1	0.86	0.196	2	399	0.01470	0.00	0.00	0	134	0	3.40	0.00	
1 69Z	24.4	2.24	213.5	3.04	0.911	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.01	
1 70Z	0.0	0.00	213.5	3.04	0.910	2	1072	0.01280	0.00	0.00	0	134	0	3.30	0.00	
1 71Z	27.0	2.40	240.5	4.97	1.677	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.01	
1 72Z	0.0	0.00	240.5	4.97	1.676	2	1351	0.00920	0.00	0.00	0	134	0	3.20	0.00	

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**********************************************************************************************************************
*                                                CONFLUENCE Q'S                                                      *
* 1   73W  TW 1219 QW    40.09 QWZ    42.21 QZ     2.12       1   73Z  TZ 1185 QZ     4.66 QZ66321917638900659000000.00 Q>W    31.34
Qç     0.00
*                                        1   73WZ TWZ 1214 QWZ    42.37 QW    39.93 QZ     2.44
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	4.66	789.8	42.37	22.513	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinW-Burned.lac Run date: Tue Sep 29 16:57:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.99	157.9	25.87	8.485	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.02
1	12W	0.0	0.00	157.9	25.87	8.418	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	9.27	194.1	30.12	10.503	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.05
1	14W	0.0	0.00	194.1	30.08	10.314	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	8.37	227.1	34.67	12.278	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.07
1	16W	0.0	0.00	227.1	34.55	11.957	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	10.16	266.6	40.55	14.461	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1	18W	0.0	0.00	266.6	40.19	13.953	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	7.86	299.4	43.81	15.911	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	20W	0.0	0.00	299.4	43.39	15.468	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	8.48	334.8	46.28	17.582	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	22W	0.0	0.00	334.8	45.60	17.071	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	5.28	353.9	46.21	18.253	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	24W	0.0	0.00	353.9	46.16	17.928	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	3.15	365.3	46.47	18.634	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	26W	0.0	0.00	365.3	46.46	18.420	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	6.02	388.0	47.27	19.778	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	28W	0.0	0.00	388.0	47.22	19.329	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	1.75	7.3	1.75	0.436	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	30X	0.0	0.00	7.3	1.75	0.344	2	1088	0.00760	0.00	0.00	0	332	0	3.60	0.00
1	31X	23.1	5.33	30.4	6.21	1.681	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	32X	0.0	0.00	30.4	6.20	1.400	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.89	43.4	8.51	2.129	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	34X	0.0	0.00	43.4	8.50	1.968	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	4.11	61.9	11.87	3.005	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	36X	0.0	0.00	61.9	11.83	2.782	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

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*************************************************************************************************************
*                                                   CONFLUENCE Q'S                                          *
* 1   37W  TW 1219 QW    46.69 QWX    50.97 QX     4.28       1   37X  TX 1182 QX    11.53
QX995054867212881370000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.
00 QÚW    34.74 Qt     0.00
*                                        1   37WX TWX 1214 QWX    51.30 QW    46.38 QX     4.92
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	11.53	449.9	51.28	21.859	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1	38W	19.2	3.64	469.1	51.76	22.738	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.06
1	39W	0.0	0.00	469.1	51.75	22.391	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1	40Y	6.4	1.53	6.4	1.53	0.382	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	41Y	0.0	0.00	6.4	1.53	0.298	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1	42Y	11.2	2.68	17.6	3.69	0.967	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	43Y	0.0	0.00	17.6	3.68	0.826	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1	44Y	15.6	3.60	33.2	6.56	1.729	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	45Y	0.0	0.00	33.2	6.56	1.538	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1	46Y	9.5	2.11	42.7	7.93	2.071	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	47Y	0.0	0.00	42.7	7.92	1.950	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1	48Y	13.1	2.80	55.8	9.96	2.661	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1	49Y	0.0	0.00	55.8	9.95	2.500	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1	50Y	24.4	4.48	80.2	13.06	3.566	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.05
1	51Y	0.0	0.00	80.2	13.05	3.431	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

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*************************************************************************************************************
*                                                   CONFLUENCE Q'S                                          *
* 1   52W  TW 1227 QW    51.60 QWY    57.22 QY     5.63       1   52Y  TY 1186 QY    12.62 QY-
3309820546657905000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000.00 QcW    41.06 Qt     0.00
*                                        1   52WY TWY 1204 QWY    58.47 QW    48.98 QY     9.48
*************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	12.62	549.3	58.47	25.558	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1	53Z	12.8	3.52	12.8	3.52	0.859	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1	54Z	0.0	0.00	12.8	3.52	0.858	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1	55Z	24.9	6.63	37.7	9.09	2.484	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.10
1	56Z	0.0	0.00	37.7	9.09	2.482	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1	57Z	25.8	6.41	63.5	14.10	4.071	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1	58Z	0.0	0.00	63.5	14.10	4.069	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1	59Z	30.1	7.21	93.6	19.72	5.866	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	60Z	0.0	0.00	93.6	19.72	5.858	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1	61Z	28.0	6.47	121.6	24.34	7.479	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	62Z	0.0	0.00	121.6	24.34	7.464	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1	63Z	32.7	7.55	154.3	29.17	9.356	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	64Z	0.0	0.00	154.3	27.83	8.318	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV	
1 65Z	25.7	6.08	180.0	28.91	9.582	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.05	
1 66Z	0.0	0.00	180.0	28.08	0.000	1071676393	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00	
1 67Z	9.1	1.94	189.1	1.94	0.370	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01	
1 68Z	0.0	0.00	189.1	1.94	0.315	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00	
1 69Z	24.4	4.97	213.5	6.78	1.271	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01	
1 70Z	0.0	0.00	213.5	6.78	1.270	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00	
1 71Z	27.0	5.24	240.5	10.88	2.288	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01	
1 72Z	0.0	0.00	240.5	10.88	2.286	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00	

****
* CONFLUENCE Q'S *
* 1 73W TW 1217 QW 58.15 QWZ 61.34 QZ 3.19 1 73Z TZ 1182 QZ 10.13 QZ-
3401162002355280400000000000000000000000000000.00 QEW 41.28 Qt 0.00
* 1 73WZ TWZ 1208 QWZ 61.95 QW 57.42 QZ 4.53
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	10.13	789.8	61.95	27.843	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\BasinW-Burned.lac Run date: Tue Sep 29 16:57:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	7.52	24.1	7.52	1.469	0	0	0.00000	0.00	0.00	0	332	30	5.20	0.01
1	2B	27.6	5.36	27.6	5.36	1.041	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01
1	2W	0.0	0.00	24.1	7.52	1.468	2	1848	0.01050	0.00	0.00	0	336	0	3.20	0.00
1	3W	22.3	6.55	46.4	11.26	2.762	0	0	0.00000	0.00	0.00	0	332	30	5.00	0.01
1	4B	15.1	3.22	42.7	8.58	1.655	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01
1	4W	0.0	0.00	46.4	11.26	2.759	2	1007	0.01070	0.00	0.00	0	336	0	3.40	0.00
1	5W	26.9	7.42	73.3	16.22	4.245	0	0	0.00000	0.00	0.00	0	332	30	4.80	0.01
1	6W	0.0	0.00	73.3	16.22	4.235	2	1111	0.00990	0.00	0.00	0	332	0	4.80	0.00
1	7W	24.7	6.39	98.0	20.06	5.529	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1	8W	0.0	0.00	98.0	20.06	5.508	2	1118	0.00710	0.00	0.00	0	332	0	4.60	0.00
1	9W	35.1	8.50	133.1	24.08	7.250	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1	10W	0.0	0.00	133.1	24.08	7.219	2	1301	0.01000	0.00	0.00	0	332	0	4.40	0.00
1	11W	24.8	5.99	157.9	25.87	8.485	0	0	0.00000	0.00	0.00	0	332	30	4.30	0.02
1	12W	0.0	0.00	157.9	25.87	8.418	2	779	0.00750	0.00	0.00	0	332	0	4.30	0.00
1	13W	36.2	9.27	194.1	30.12	10.503	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.05
1	14W	0.0	0.00	194.1	30.08	10.314	2	915	0.01440	0.00	0.00	0	332	0	4.20	0.00
1	15W	33.0	8.37	227.1	34.67	12.278	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.07
1	16W	0.0	0.00	227.1	34.55	11.957	2	796	0.01390	0.00	0.00	0	332	0	4.00	0.00
1	17W	39.5	10.16	266.6	40.55	14.461	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1	18W	0.0	0.00	266.6	40.19	13.953	2	930	0.01200	0.00	0.00	0	332	0	3.80	0.00
1	19W	32.8	7.86	299.4	43.81	15.911	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	20W	0.0	0.00	299.4	43.39	15.468	2	774	0.00940	0.00	0.00	0	332	0	3.60	0.00
1	21W	35.4	8.48	334.8	46.28	17.582	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	22W	0.0	0.00	334.8	45.60	17.071	2	1066	0.00820	0.00	0.00	0	332	0	3.60	0.00
1	23W	19.1	5.28	353.9	46.21	18.253	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	24W	0.0	0.00	353.9	46.16	17.928	2	860	0.00630	0.00	0.00	0	336	0	3.50	0.00
1	25W	11.4	3.15	365.3	46.47	18.634	0	0	0.00000	0.00	0.00	0	336	30	3.50	0.10
1	26W	0.0	0.00	365.3	46.46	18.420	2	684	0.00730	0.00	0.00	0	336	0	3.50	0.00
1	27W	22.7	6.02	388.0	47.27	19.778	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.10
1	28W	0.0	0.00	388.0	47.22	19.329	2	1949	0.01030	0.00	0.00	0	336	0	3.40	0.00
1	29X	7.3	1.75	7.3	1.75	0.436	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1	30X	0.0	0.00	7.3	1.75	0.344	2	1088	0.00760	0.00	0.00	0	332	0	3.60	0.00
1	31X	23.1	5.33	30.4	6.21	1.681	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1	32X	0.0	0.00	30.4	6.20	1.400	2	882	0.01350	0.00	0.00	0	332	0	3.50	0.00
1	33X	13.0	2.89	43.4	8.51	2.129	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	34X	0.0	0.00	43.4	8.50	1.968	2	429	0.01290	0.00	0.00	0	332	0	3.40	0.00
1	35X	18.5	4.11	61.9	11.87	3.005	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1	36X	0.0	0.00	61.9	11.83	2.782	2	1115	0.01280	0.00	0.00	0	332	0	3.40	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 50

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************************************************************************************************************************************
*                                                CONFLUENCE Q'S                                                                    *
* 1   37W  TW 1219 QW    46.69 QWX    50.97 QX     4.28       1   37X  TX 1182 QX    11.53
QX9950548672128813700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.
00 QÚW    34.74 Qt     0.00
*                                         1   37WX TWX 1214 QWX    51.30 QW    46.38 QX     4.92
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 37WX	61.9	11.53	449.9	51.28	21.859	2	642	0.00980	0.00	0.00	0	332	0	3.40	0.00
1 38W	19.2	3.64	469.1	51.76	22.738	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.06
1 39W	0.0	0.00	469.1	51.75	22.391	2	1430	0.00960	0.00	0.00	0	332	0	3.30	0.00
1 40Y	6.4	1.53	6.4	1.53	0.382	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 41Y	0.0	0.00	6.4	1.53	0.298	2	970	0.00890	0.00	0.00	0	332	0	3.60	0.00
1 42Y	11.2	2.68	17.6	3.69	0.967	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 43Y	0.0	0.00	17.6	3.68	0.826	2	831	0.01140	0.00	0.00	0	332	0	3.60	0.00
1 44Y	15.6	3.60	33.2	6.56	1.729	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 45Y	0.0	0.00	33.2	6.56	1.538	2	883	0.01070	0.00	0.00	0	332	0	3.50	0.00
1 46Y	9.5	2.11	42.7	7.93	2.071	0	0	0.00000	0.00	0.00	0	332	30	3.40	0.10
1 47Y	0.0	0.00	42.7	7.92	1.950	2	390	0.01680	0.00	0.00	0	332	0	3.40	0.00
1 48Y	13.1	2.80	55.8	9.96	2.661	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.10
1 49Y	0.0	0.00	55.8	9.95	2.500	2	658	0.01670	0.00	0.00	0	332	0	3.30	0.00
1 50Y	24.4	4.48	80.2	13.06	3.566	0	0	0.00000	0.00	0.00	0	332	30	3.30	0.05
1 51Y	0.0	0.00	80.2	13.05	3.431	2	1416	0.01050	0.00	0.00	0	332	0	3.30	0.00

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************************************************************************************************************************************
*                                                CONFLUENCE Q'S                                                                    *
* 1   52W  TW 1227 QW    51.60 QWY    57.22 QY     5.63       1   52Y  TY 1186 QY    12.62 QY-
330982054665790500000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000.00 QcW    41.06 Qt     0.00
*                                         1   52WY TWY 1204 QWY    58.47 QW    48.98 QY     9.48
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52WY	80.2	12.62	549.3	58.47	25.558	2	1623	0.00800	0.00	0.00	0	332	0	3.30	0.00
1 53Z	12.8	3.52	12.8	3.52	0.859	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 54Z	0.0	0.00	12.8	3.52	0.858	2	1273	0.01320	0.00	0.00	0	332	0	4.00	0.00
1 55Z	24.9	6.63	37.7	9.09	2.484	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.10
1 56Z	0.0	0.00	37.7	9.09	2.482	2	1086	0.01170	0.00	0.00	0	332	0	3.90	0.00
1 57Z	25.8	6.41	63.5	14.10	4.071	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 58Z	0.0	0.00	63.5	14.10	4.069	2	863	0.01350	0.00	0.00	0	332	0	3.70	0.00
1 59Z	30.1	7.21	93.6	19.72	5.866	0	0	0.00000	0.00	0.00	0	332	30	3.60	0.10
1 60Z	0.0	0.00	93.6	19.72	5.858	2	922	0.01230	0.00	0.00	0	332	0	3.60	0.00
1 61Z	28.0	6.47	121.6	24.34	7.479	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 62Z	0.0	0.00	121.6	24.34	7.464	2	907	0.01020	0.00	0.00	0	332	0	3.50	0.00
1 63Z	32.7	7.55	154.3	29.17	9.356	0	0	0.00000	0.00	0.00	0	332	30	3.50	0.10
1 64Z	0.0	0.00	154.3	27.83	8.318	2	1048	0.01130	0.00	0.00	0	332	0	3.50	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV	
1 65Z	25.7	6.08	180.0	28.91	9.582	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.05	
1 66Z	0.0	0.00	180.0	28.08	0.000	1071676393	1003	0.01240	0.00	0.00	0	336	0	3.40	0.00	
1 67Z	9.1	1.94	189.1	1.94	0.370	0	0	0.00000	0.00	0.00	0	336	30	3.40	0.01	
1 68Z	0.0	0.00	189.1	1.94	0.315	2	399	0.01470	0.00	0.00	0	336	0	3.40	0.00	
1 69Z	24.4	4.97	213.5	6.78	1.271	0	0	0.00000	0.00	0.00	0	336	30	3.30	0.01	
1 70Z	0.0	0.00	213.5	6.78	1.270	2	1072	0.01280	0.00	0.00	0	336	0	3.30	0.00	
1 71Z	27.0	5.24	240.5	10.88	2.288	0	0	0.00000	0.00	0.00	0	336	30	3.20	0.01	
1 72Z	0.0	0.00	240.5	10.88	2.286	2	1351	0.00920	0.00	0.00	0	336	0	3.20	0.00	

****
* CONFLUENCE Q'S *
* 1 73W TW 1217 QW 58.15 QWZ 61.34 QZ 3.19 1 73Z TZ 1182 QZ 10.13 QZ-
3401162002355280400000000000000000000000000000.00 QEW 41.28 Qt 0.00
* 1 73WZ TWZ 1208 QWZ 61.95 QW 57.42 QZ 4.53
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	10.13	789.8	61.95	27.843	2	5	0.01000	0.00	0.00	0	336	0	3.20	0.00

Qbb = 61.95 x 1.025 = 63.50 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100A.lac Run date: Tue Sep 29 10:07:00 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.52	8.2	1.52	0.485	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.10
1 102A	0.0	0.00	8.2	1.45	0.383	2	1080	0.01170	0.00	0.00	0	124	0	4.00	0.00
1 103A	17.4	3.06	25.6	3.96	1.362	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.10
1 104A	0.0	0.00	25.6	3.69	1.150	2	846	0.01260	0.00	0.00	0	124	0	3.80	0.00
1 105A	18.4	3.15	44.0	5.95	2.157	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.10
1 106A	0.0	0.00	44.0	5.54	1.931	2	782	0.01420	0.00	0.00	0	124	0	3.70	0.00
1 107A	24.3	4.58	68.3	8.33	3.227	0	0	0.00000	0.00	0.00	0	124	23	3.60	0.10
1 108A	0.0	0.00	68.3	7.38	2.915	2	822	0.01180	0.00	0.00	0	124	0	3.60	0.00
1 109A	21.0	4.14	89.3	9.55	4.036	0	0	0.00000	0.00	0.00	0	124	21	3.60	0.10
1 110A	0.0	0.00	89.3	8.81	3.809	2	717	0.01020	0.00	0.00	0	124	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100A-Burned.lac Run date: Tue Sep 29 10:51:38 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	2.26	8.2	2.26	0.551	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 102A	0.0	0.00	8.2	2.19	0.449	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	4.47	25.6	5.78	1.552	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1 104A	0.0	0.00	25.6	5.49	1.341	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	4.57	44.0	8.72	2.473	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 106A	0.0	0.00	44.0	8.29	2.250	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	6.86	68.3	12.13	3.707	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.10
1 108A	0.0	0.00	68.3	11.09	3.402	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	6.28	89.3	14.01	4.663	0	0	0.00000	0.00	0.00	0	332	21	3.60	0.10
1 110A	0.0	0.00	89.3	13.20	4.442	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100A-Burned.lac Run date: Tue Sep 29 10:51:38 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	2.26	8.2	2.26	0.551	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.10
1 102A	0.0	0.00	8.2	2.19	0.449	2	1080	0.01170	0.00	0.00	0	332	0	4.00	0.00
1 103A	17.4	4.47	25.6	5.78	1.552	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.10
1 104A	0.0	0.00	25.6	5.49	1.341	2	846	0.01260	0.00	0.00	0	332	0	3.80	0.00
1 105A	18.4	4.57	44.0	8.72	2.473	0	0	0.00000	0.00	0.00	0	332	30	3.70	0.10
1 106A	0.0	0.00	44.0	8.29	2.250	2	782	0.01420	0.00	0.00	0	332	0	3.70	0.00
1 107A	24.3	6.86	68.3	12.13	3.707	0	0	0.00000	0.00	0.00	0	332	23	3.60	0.10
1 108A	0.0	0.00	68.3	11.09	3.402	2	822	0.01180	0.00	0.00	0	332	0	3.60	0.00
1 109A	21.0	6.28	89.3	14.01	4.663	0	0	0.00000	0.00	0.00	0	332	21	3.60	0.10
1 110A	0.0	0.00	89.3	13.20	4.442	2	717	0.01020	0.00	0.00	0	332	0	3.60	0.00

Qbb = 13.20 x 1.025 = 13.53 cfs

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100B.lac Run date: Tue Sep 29 10:09:45 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	4.98	30.0	4.98	1.495	0	0	0.00000	0.00	0.00	0	124	30	5.60	0.01
1 14B	22.1	6.05	52.1	11.03	2.671	0	0	0.00000	0.00	0.00	0	134	30	5.70	0.01
1 20B	38.7	7.22	90.8	18.24	4.678	0	0	0.00000	0.00	0.00	0	124	30	5.80	0.01
1 21B	11.2	3.42	102.0	21.66	5.291	0	0	0.00000	0.00	0.00	0	134	29	5.80	0.01
1 28B	24.5	10.21	126.5	31.86	6.779	0	0	0.00000	0.00	0.00	0	134	27	6.20	0.01
1 29B	7.6	1.75	134.1	33.61	7.206	0	0	0.00000	0.00	0.00	0	124	30	6.20	0.01
1 35B	15.5	4.11	149.6	37.72	8.129	0	0	0.00000	0.00	0.00	0	124	30	6.50	0.01
1 36B	29.0	8.05	178.6	45.78	9.889	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 100B	67.0	238.89	245.6	279.56	17.818	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.6	279.56	17.820	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	14.78	271.6	290.26	19.547	0	0	0.00000	0.00	0.00	0	124	18	6.80	0.01
1 103B	0.0	0.00	271.6	290.26	19.542	2	1058	0.04570	0.00	0.00	0	124	0	6.80	0.00
1 104B	24.8	6.89	296.4	284.65	21.047	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 105B	0.0	0.00	296.4	284.65	21.036	2	1470	0.02950	0.00	0.00	0	124	0	6.60	0.00
1 106B	18.1	5.05	314.5	258.51	22.101	0	0	0.00000	0.00	0.00	0	124	28	6.40	0.01
1 107B	0.0	0.00	314.5	258.51	22.093	2	959	0.01820	0.00	0.00	0	124	0	6.40	0.00
1 108C	722.0	1504.05	722.0	1504.05	84.639	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	722.0	1504.05	84.694	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	11.52	761.7	1497.79	87.150	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 111C	0.0	0.00	761.7	1497.79	87.133	2	1568	0.03970	0.00	0.00	0	124	0	6.70	0.00
1 112D	37.7	10.94	37.7	10.94	2.333	0	0	0.00000	0.00	0.00	0	124	30	6.70	0.01
1 113D	0.0	0.00	37.7	10.94	2.333	2	2150	0.02780	0.00	0.00	0	124	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1159 QC  1481.83 QCD  1486.61 QD     4.78       1  114D  TD 1172 QD     9.52 QD   -34.60 QTC   287.37 Qí     0.00
*                                        1  114CD TCD 1159 QCD  1486.61 QC  1481.83 QD     4.78
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	9.52	799.4	1486.61	89.495	2	1532	0.02480	0.00	0.00	0	124	0	6.70	0.00
1 115C	12.0	3.71	811.4	1471.57	90.207	0	0	0.00000	0.00	0.00	0	124	26	6.40	0.01
1 116C	0.0	0.00	811.4	1471.57	90.153	2	949	0.01960	0.00	0.00	0	124	0	6.40	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   239.50 QBC  1696.78 QC  1457.28       1  117C  TC 1162 QC  1457.28 QC    -0.00 Q□B   239.50 Qí     0.00
*                                        1  117BC TBC 1162 QBC  1696.78 QB   239.50 QC  1457.28
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	811.4	1457.28	1125.9	1696.78	112.181	2	1210	0.01230	0.00	0.00	0	124	0	6.40	0.00
1 118B	34.1	7.09	1160.0	1666.35	114.021	0	0	0.00000	0.00	0.00	0	124	30	6.00	0.01
1 119B	0.0	0.00	1160.0	1666.35	113.888	2	944	0.01350	0.00	0.00	0	124	0	6.00	0.00
1 120E	31.1	8.64	31.1	8.64	1.888	0	0	0.00000	0.00	0.00	0	124	30	6.60	0.01
1 121E	0.0	0.00	31.1	8.64	1.888	2	2049	0.03100	0.00	0.00	0	124	0	6.60	0.00
1 122E	18.9	9.08	50.0	13.31	3.068	0	0	0.00000	0.00	0.00	0	124	19	6.50	0.01
1 123E	0.0	0.00	50.0	13.31	3.067	2	866	0.03040	0.00	0.00	0	124	0	6.50	0.00
1 124E	37.4	14.08	87.4	25.89	5.352	0	0	0.00000	0.00	0.00	0	134	30	6.30	0.01
1 125E	0.0	0.00	87.4	25.89	5.343	2	1753	0.01750	0.00	0.00	0	134	0	6.30	0.00
1 126E	21.3	12.60	108.7	28.56	6.661	0	0	0.00000	0.00	0.00	0	134	19	6.10	0.01
1 127E	0.0	0.00	108.7	28.56	6.649	2	919	0.01770	0.00	0.00	0	134	0	6.10	0.00
1 128E	16.6	9.02	125.3	31.53	7.649	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 129E	0.0	0.00	125.3	31.53	7.633	2	904	0.01440	0.00	0.00	0	134	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  130B  TB 1166 QB  1648.30 QBE  1675.45 QE    27.15       1  130E  TE 1172 QE    30.74 QE709793470932790340000000000000000000.00
QÕB  1285.96 Qí     0.00
*                                      1  130BE TBE 1166 QBE  1675.45 QB  1648.30 QE    27.15
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	30.74	1285.3	1675.45	121.360	2	1100	0.01140	0.00	0.00	0	134	0	6.00	0.00
1 131F	13.6	13.30	13.6	13.30	0.938	0	0	0.00000	0.00	0.00	0	134	13	6.50	0.01
1 132F	0.0	0.00	13.6	13.30	0.939	2	906	0.03180	0.00	0.00	0	134	0	6.50	0.00
1 133F	26.6	15.77	40.2	27.02	2.676	0	0	0.00000	0.00	0.00	0	134	21	6.40	0.01
1 134F	0.0	0.00	40.2	27.02	2.676	2	1224	0.02140	0.00	0.00	0	134	0	6.40	0.00
1 135F	37.2	13.33	77.4	36.45	4.899	0	0	0.00000	0.00	0.00	0	134	30	6.20	0.01
1 136F	0.0	0.00	77.4	36.45	4.894	2	1787	0.01630	0.00	0.00	0	134	0	6.20	0.00
1 137F	24.5	13.31	101.9	33.89	6.370	0	0	0.00000	0.00	0.00	0	134	20	6.00	0.01
1 138F	0.0	0.00	101.9	33.89	6.362	2	979	0.01940	0.00	0.00	0	134	0	6.00	0.00
1 139F	14.3	8.32	116.2	34.19	7.213	0	0	0.00000	0.00	0.00	0	134	18	5.90	0.01
1 140F	0.0	0.00	116.2	34.19	7.201	2	790	0.01440	0.00	0.00	0	134	0	5.90	0.00

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*                                                    CONFLUENCE Q'S                                                         *
* 1  141B  TB 1169 QB  1648.11 QBF  1675.78 QF    27.67       1  141F  TF 1182 QF    33.81 QF     0.00 Q¾B   626.41 Qí     0.00
*                                      1  141BF TBF 1169 QBF  1675.78 QB  1648.11 QF    27.67
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	33.81	1401.5	1675.78	128.302	2	1041	0.00840	0.00	0.00	0	134	0	5.90	0.00
1 142B	27.0	4.22	1428.5	1650.45	129.621	0	0	0.00000	0.00	0.00	0	124	30	5.50	0.01
1 143B	0.0	0.00	1428.5	1650.45	129.370	2	872	0.01000	0.00	0.00	0	124	0	5.50	0.00
1 144B	24.7	3.63	1453.2	1635.01	130.532	0	0	0.00000	0.00	0.00	0	124	30	5.30	0.01
1 145B	0.0	0.00	1453.2	1635.01	130.210	2	1127	0.01000	0.00	0.00	0	124	0	5.30	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION– 50 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 146B	26.0	3.68	1479.2	1605.09	131.387	0	0	0.00000	0.00	0.00	0	124	30	5.10	0.01
1 147B	0.0	0.00	1479.2	1605.09	131.027	2	1083	0.00870	0.00	0.00	0	124	0	5.10	0.00
1 148B	22.6	3.07	1501.8	1578.42	132.010	0	0	0.00000	0.00	0.00	0	124	30	4.90	0.01
1 149B	0.0	0.00	1501.8	1578.42	131.671	2	872	0.00640	0.00	0.00	0	124	0	4.90	0.00
1 150B	28.5	3.64	1530.3	1552.70	132.835	0	0	0.00000	0.00	0.00	0	124	30	4.60	0.01
1 151B	0.0	0.00	1530.3	1552.70	132.345	2	1358	0.01000	0.00	0.00	0	124	0	4.60	0.00
1 152B	23.4	2.86	1553.7	1509.03	133.259	0	0	0.00000	0.00	0.00	0	124	30	4.40	0.01
1 153B	0.0	0.00	1553.7	1509.03	132.807	2	1217	0.00940	0.00	0.00	0	124	0	4.40	0.00
1 154B	20.9	2.62	1574.6	1477.12	133.644	0	0	0.00000	0.00	0.00	0	124	30	4.20	0.02
1 155B	0.0	0.00	1574.6	1476.93	133.308	2	807	0.01170	0.00	0.00	0	124	0	4.20	0.00
1 156B	26.1	3.85	1600.7	1467.84	134.540	0	0	0.00000	0.00	0.00	0	124	30	4.10	0.05
1 157B	0.0	0.00	1600.7	1467.86	134.073	2	966	0.01090	0.00	0.00	0	124	0	4.10	0.00
1 158B	26.4	3.80	1627.1	1452.46	135.288	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.05
1 159B	0.0	0.00	1627.1	1452.19	134.796	2	973	0.01030	0.00	0.00	0	124	0	4.00	0.00
1 160B	29.7	4.17	1656.8	1434.54	136.129	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.05
1 161B	0.0	0.00	1656.8	1433.81	135.606	2	1044	0.00880	0.00	0.00	0	124	0	3.90	0.00
1 162B	27.9	4.25	1684.7	1411.40	136.966	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.07
1 163B	0.0	0.00	1684.7	1411.15	136.348	2	1101	0.01000	0.00	0.00	0	124	0	3.80	0.00
1 164B	25.2	2.66	1709.9	1386.16	137.198	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 165B	0.0	0.00	1709.9	1386.65	136.558	2	1034	0.00970	0.00	0.00	0	124	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100B-Burned.lac Run date: Tue Sep 29 17:57:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.0	238.89	245.6	313.84	21.764	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.6	313.84	21.766	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.6	327.97	24.033	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.6	327.97	24.021	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.4	327.16	26.065	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.4	327.16	26.058	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.5	305.52	27.495	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.5	305.52	27.490	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34       1  114D  TD 1172 QD    16.18
QD26699728223043327000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Qv     0.00
*                                          1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1161 QB   287.69 QBC  2234.19 QC  1946.50       1  117C  TC 1162 QC  1957.04 QC    -0.00 QDB   284.59 Qv     0.00
*                                          1  117BC TBC 1162 QBC  2241.63 QB   284.59 QC  1957.04
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1362.9	2241.63	147.236	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.0	2221.24	149.724	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.0	2221.24	149.566	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  130B  TB 1165 QB  2197.21 QBE  2243.45 QE    46.23       1  130E  TE 1173 QE    54.09
QE24553296341604121000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000.00 QüB  1432.16 Qv     0.00
*                                       1  130BE TBE 1165 QBE  2243.45 QB  2197.21 QE    46.23
**********************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.3	2243.45	160.245	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

```
**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  141B  TB 1167 QB  2213.14 QBF  2263.40 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 Q/B  1349.50 Qv     0.00
*                                       1  141BF TBF 1167 QBF  2263.40 QB  2213.14 QF    50.27
**********************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.5	2263.40	170.574	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.5	2240.05	172.339	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.5	2240.05	172.029	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.2	2226.31	173.570	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 145B	0.0	0.00	1690.2	2226.31	173.224	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.2	2198.02	174.771	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 147B	0.0	0.00	1716.2	2198.02	174.384	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.8	2174.98	175.664	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.8	2174.98	175.282	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.3	2152.57	176.776	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.3	2152.57	176.238	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.7	2105.02	177.400	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.7	2105.02	176.909	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.88	1811.6	2070.72	177.946	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.02
1 155B	0.0	0.00	1811.6	2070.61	177.550	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	6.46	1837.7	2055.22	179.012	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.05
1 157B	0.0	0.00	1837.7	2055.95	178.461	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	6.31	1864.1	2034.97	179.898	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.05
1 159B	0.0	0.00	1864.1	2035.86	179.340	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.85	1893.8	2014.97	180.910	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.05
1 161B	0.0	0.00	1893.8	2015.85	180.346	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	6.60	1921.7	1993.57	181.912	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.07
1 163B	0.0	0.00	1921.7	1993.95	181.267	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1946.9	1968.06	182.317	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1946.9	1967.34	181.613	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q50 with Mitigation\Basin100B-Burned.lac Run date: Tue Sep 29 17:57:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	10.49	30.0	10.49	2.006	0	0	0.00000	0.00	0.00	0	332	30	5.60	0.01
1 14B	22.1	10.88	52.1	21.37	3.776	0	0	0.00000	0.00	0.00	0	336	30	5.70	0.01
1 20B	38.7	14.30	90.8	35.67	6.481	0	0	0.00000	0.00	0.00	0	332	30	5.80	0.01
1 21B	11.2	5.83	102.0	41.51	7.401	0	0	0.00000	0.00	0.00	0	336	29	5.80	0.01
1 28B	24.5	15.12	126.5	56.62	9.615	0	0	0.00000	0.00	0.00	0	336	27	6.20	0.01
1 29B	7.6	3.12	134.1	59.74	10.193	0	0	0.00000	0.00	0.00	0	332	30	6.20	0.01
1 35B	15.5	6.85	149.6	66.59	11.445	0	0	0.00000	0.00	0.00	0	332	30	6.50	0.01
1 36B	29.0	13.14	178.6	79.73	13.836	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 100B	67.0	238.89	245.6	313.84	21.764	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.6	313.84	21.766	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	18.27	271.6	327.97	24.033	0	0	0.00000	0.00	0.00	0	332	18	6.80	0.01
1 103B	0.0	0.00	271.6	327.97	24.021	2	1058	0.04570	0.00	0.00	0	332	0	6.80	0.00
1 104B	24.8	11.24	296.4	327.16	26.065	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 105B	0.0	0.00	296.4	327.16	26.058	2	1470	0.02950	0.00	0.00	0	332	0	6.60	0.00
1 106B	18.1	8.22	314.5	305.52	27.495	0	0	0.00000	0.00	0.00	0	332	28	6.40	0.01
1 107B	0.0	0.00	314.5	305.52	27.490	2	959	0.01820	0.00	0.00	0	332	0	6.40	0.00
1 108C	959.0	1997.76	959.0	1997.76	112.422	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	959.0	1997.76	112.439	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	18.43	998.7	1993.93	115.775	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 111C	0.0	0.00	998.7	1993.93	115.737	2	1568	0.03970	0.00	0.00	0	332	0	6.70	0.00
1 112D	37.7	17.50	37.7	17.50	3.168	0	0	0.00000	0.00	0.00	0	332	30	6.70	0.01
1 113D	0.0	0.00	37.7	17.50	3.168	2	2150	0.02780	0.00	0.00	0	332	0	6.70	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1158 QC  1981.17 QCD  1990.51 QD     9.34       1  114D  TD 1172 QD    16.18
QD26699728223043327000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QŠC   350.54 Qv     0.00
*                                        1  114CD TCD 1158 QCD  1990.51 QC  1981.17 QD     9.34
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	16.18	1036.4	1990.51	118.913	2	1532	0.02480	0.00	0.00	0	332	0	6.70	0.00
1 115C	12.0	5.76	1048.4	1970.63	119.868	0	0	0.00000	0.00	0.00	0	332	26	6.40	0.01
1 116C	0.0	0.00	1048.4	1970.63	119.808	2	949	0.01960	0.00	0.00	0	332	0	6.40	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1161 QB   287.69 QBC  2234.19 QC  1946.50       1  117C  TC 1162 QC  1957.04 QC    -0.00 QDB   284.59 Qv     0.00
*                                        1  117BC TBC 1162 QBC  2241.63 QB   284.59 QC  1957.04
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	1048.4	1957.04	1362.9	2241.63	147.236	2	1210	0.01230	0.00	0.00	0	332	0	6.40	0.00
1 118B	34.1	13.29	1397.0	2221.24	149.724	0	0	0.00000	0.00	0.00	0	332	30	6.00	0.01
1 119B	0.0	0.00	1397.0	2221.24	149.566	2	944	0.01350	0.00	0.00	0	332	0	6.00	0.00
1 120E	31.1	14.09	31.1	14.09	2.563	0	0	0.00000	0.00	0.00	0	332	30	6.60	0.01
1 121E	0.0	0.00	31.1	14.09	2.563	2	2049	0.03100	0.00	0.00	0	332	0	6.60	0.00
1 122E	18.9	11.83	50.0	21.73	4.114	0	0	0.00000	0.00	0.00	0	332	19	6.50	0.01
1 123E	0.0	0.00	50.0	21.73	4.113	2	866	0.03040	0.00	0.00	0	332	0	6.50	0.00
1 124E	37.4	21.81	87.4	41.67	7.552	0	0	0.00000	0.00	0.00	0	336	30	6.30	0.01
1 125E	0.0	0.00	87.4	41.67	7.542	2	1753	0.01750	0.00	0.00	0	336	0	6.30	0.00
1 126E	21.3	16.99	108.7	48.52	9.453	0	0	0.00000	0.00	0.00	0	336	19	6.10	0.01
1 127E	0.0	0.00	108.7	48.52	9.442	2	919	0.01770	0.00	0.00	0	336	0	6.10	0.00
1 128E	16.6	12.34	125.3	54.89	10.894	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 129E	0.0	0.00	125.3	54.89	10.877	2	904	0.01440	0.00	0.00	0	336	0	6.00	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  130B  TB 1165 QB  2197.21 QBE  2243.45 QE    46.23       1  130E  TE 1173 QE    54.09
QE24553296341604121000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000.00 QüB  1432.16 Qv     0.00
*                                        1  130BE TBE 1165 QBE  2243.45 QB  2197.21 QE    46.23
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	54.09	1522.3	2243.45	160.245	2	1100	0.01140	0.00	0.00	0	336	0	6.00	0.00
1 131F	13.6	17.22	13.6	17.22	1.360	0	0	0.00000	0.00	0.00	0	336	13	6.50	0.01
1 132F	0.0	0.00	13.6	17.22	1.360	2	906	0.03180	0.00	0.00	0	336	0	6.50	0.00
1 133F	26.6	21.26	40.2	36.56	3.901	0	0	0.00000	0.00	0.00	0	336	21	6.40	0.01
1 134F	0.0	0.00	40.2	36.56	3.901	2	1224	0.02140	0.00	0.00	0	336	0	6.40	0.00
1 135F	37.2	21.11	77.4	54.34	7.247	0	0	0.00000	0.00	0.00	0	336	30	6.20	0.01
1 136F	0.0	0.00	77.4	54.34	7.243	2	1787	0.01630	0.00	0.00	0	336	0	6.20	0.00
1 137F	24.5	18.22	101.9	59.11	9.385	0	0	0.00000	0.00	0.00	0	336	20	6.00	0.01
1 138F	0.0	0.00	101.9	59.11	9.378	2	979	0.01940	0.00	0.00	0	336	0	6.00	0.00
1 139F	14.3	11.25	116.2	59.76	10.605	0	0	0.00000	0.00	0.00	0	336	18	5.90	0.01
1 140F	0.0	0.00	116.2	59.76	10.592	2	790	0.01440	0.00	0.00	0	336	0	5.90	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  141B  TB 1167 QB  2213.14 QBF  2263.40 QF    50.27       1  141F  TF 1176 QF    59.05 QF    -0.00 Q/B  1349.50 Qv     0.00
*                                        1  141BF TBF 1167 QBF  2263.40 QB  2213.14 QF    50.27
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	59.05	1638.5	2263.40	170.574	2	1041	0.00840	0.00	0.00	0	336	0	5.90	0.00
1 142B	27.0	9.18	1665.5	2240.05	172.339	0	0	0.00000	0.00	0.00	0	332	30	5.50	0.01
1 143B	0.0	0.00	1665.5	2240.05	172.029	2	872	0.01000	0.00	0.00	0	332	0	5.50	0.00
1 144B	24.7	7.93	1690.2	2226.31	173.570	0	0	0.00000	0.00	0.00	0	332	30	5.30	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS WITH MITIGATION – 50 YEAR BURNED & BULKED

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 145B	0.0	0.00	1690.2	2226.31	173.224	2	1127	0.01000	0.00	0.00	0	332	0	5.30	0.00
1 146B	26.0	7.87	1716.2	2198.02	174.771	0	0	0.00000	0.00	0.00	0	332	30	5.10	0.01
1 147B	0.0	0.00	1716.2	2198.02	174.384	2	1083	0.00870	0.00	0.00	0	332	0	5.10	0.00
1 148B	22.6	6.44	1738.8	2174.98	175.664	0	0	0.00000	0.00	0.00	0	332	30	4.90	0.01
1 149B	0.0	0.00	1738.8	2174.98	175.282	2	872	0.00640	0.00	0.00	0	332	0	4.90	0.00
1 150B	28.5	7.38	1767.3	2152.57	176.776	0	0	0.00000	0.00	0.00	0	332	30	4.60	0.01
1 151B	0.0	0.00	1767.3	2152.57	176.238	2	1358	0.01000	0.00	0.00	0	332	0	4.60	0.00
1 152B	23.4	5.67	1790.7	2105.02	177.400	0	0	0.00000	0.00	0.00	0	332	30	4.40	0.01
1 153B	0.0	0.00	1790.7	2105.02	176.909	2	1217	0.00940	0.00	0.00	0	332	0	4.40	0.00
1 154B	20.9	4.88	1811.6	2070.72	177.946	0	0	0.00000	0.00	0.00	0	332	30	4.20	0.02
1 155B	0.0	0.00	1811.6	2070.61	177.550	2	807	0.01170	0.00	0.00	0	332	0	4.20	0.00
1 156B	26.1	6.46	1837.7	2055.22	179.012	0	0	0.00000	0.00	0.00	0	332	30	4.10	0.05
1 157B	0.0	0.00	1837.7	2055.95	178.461	2	966	0.01090	0.00	0.00	0	332	0	4.10	0.00
1 158B	26.4	6.31	1864.1	2034.97	179.898	0	0	0.00000	0.00	0.00	0	332	30	4.00	0.05
1 159B	0.0	0.00	1864.1	2035.86	179.340	2	973	0.01030	0.00	0.00	0	332	0	4.00	0.00
1 160B	29.7	6.85	1893.8	2014.97	180.910	0	0	0.00000	0.00	0.00	0	332	30	3.90	0.05
1 161B	0.0	0.00	1893.8	2015.85	180.346	2	1044	0.00880	0.00	0.00	0	332	0	3.90	0.00
1 162B	27.9	6.60	1921.7	1993.57	181.912	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.07
1 163B	0.0	0.00	1921.7	1993.95	181.267	2	1101	0.01000	0.00	0.00	0	332	0	3.80	0.00
1 164B	25.2	4.91	1946.9	1968.06	182.317	0	0	0.00000	0.00	0.00	0	332	30	3.80	0.01
1 165B	0.0	0.00	1946.9	1967.34	181.613	2	1034	0.00970	0.00	0.00	0	332	0	3.80	0.00

Qbb = 1967.34 x 1.025 = 2016.52 cfs

Normal End of MODRAT

APPENDIX F:

SUSMP CALCULATIONS

SUSMP Calculations for 12.12-Acre Sample Area

Proposed Condition

Soil Type	At (acres)	Ai (acres)	Ap (acres)	Au (acres)	Tc (min)	I (in/hr)	Cu	Cd	% Imp.	Vm (ft3)	Qpm (cfs)
124	12.12	1.21	10.91	0	30	0.193	0.1	0.18	0.10	5,939	0.425
134	12.12	1.21	10.91	0	30	0.193	0.1	0.18	0.10	5,939	0.425

Vm=(2,722.5 ft^3/acre) * [(Ai)(0.9)+(Ap+Au)(Cu)]
Qpm=Cd*I*At*1.008333

Existing Condition

Soil Type	At (acres)	Ai (acres)	Ap (acres)	Au (acres)	Tc (min)	I (in/hr)	Cu	Cd	% Imp.	Vm (ft3)	Qpm (cfs)
124	12.12	0.12	12.00	0	30	0.193	0.1	0.108	0.01	3,564	0.255
134	12.12	0.12	12.00	0	30	0.193	0.1	0.108	0.01	3,564	0.255

Vm=(2,722.5 ft^3/acre) * [(Ai)(0.9)+(Ap+Au)(Cu)]
Qpm=Cd*I*At*1.008333

APPENDIX G:

LID CALCULATIONS

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinA.lac Run date: Tue Sep 22 10:13:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	1.81	40.0	1.81	0.579	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1	2A	0.0	0.00	40.0	1.81	0.577	2	2398	0.00920	0.00	0.00	0	124	0	1.63	0.00
1	3A	39.8	1.62	79.8	2.42	1.097	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1	4A	0.0	0.00	79.8	2.42	1.093	2	1498	0.00970	0.00	0.00	0	124	0	1.47	0.00
1	5A	38.3	1.48	118.1	3.28	1.566	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	6A	0.0	0.00	118.1	3.28	1.558	2	1253	0.00910	0.00	0.00	0	124	0	1.39	0.00
1	7A	32.4	1.21	150.5	3.81	1.946	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	8A	0.0	0.00	150.5	3.81	1.936	2	1114	0.01010	0.00	0.00	0	124	0	1.35	0.00
1	9A	27.7	1.01	178.2	4.17	2.260	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	10A	0.0	0.00	178.2	4.17	2.242	2	1242	0.00870	0.00	0.00	0	124	0	1.32	0.00
1	11A	33.9	1.24	212.1	4.47	2.639	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	12A	0.0	0.00	212.1	4.47	2.616	2	1469	0.00990	0.00	0.00	0	124	0	1.32	0.00
1	13A	38.9	1.38	251.0	4.83	3.058	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1	14A	0.0	0.00	251.0	4.83	3.033	2	1177	0.00870	0.00	0.00	0	134	0	1.28	0.00
1	15A	38.3	1.32	289.3	5.34	3.455	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	16A	0.0	0.00	289.3	5.34	3.433	2	994	0.01040	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinB.lac Run date: Tue Sep 22 10:21:29 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	0.81	22.1	0.81	0.259	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	2B	0.0	0.00	22.1	0.81	0.173	2	2664	0.00930	0.00	0.00	0	124	0	1.32	0.00
1	3B	39.9	1.37	62.0	1.66	0.612	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.01
1	4B	0.0	0.00	62.0	1.66	0.611	2	1443	0.01240	0.00	0.00	0	124	0	1.24	0.00
1	5B	39.0	1.34	101.0	2.60	1.040	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.01
1	6B	0.0	0.00	101.0	2.60	1.040	2	732	0.01030	0.00	0.00	0	124	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinC.lac Run date: Tue Sep 22 10:43:05 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	1.19	17.8	1.19	0.379	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1	2C	0.0	0.00	17.8	1.19	0.377	2	1591	0.02010	0.00	0.00	0	124	0	2.40	0.00
1	3C	15.5	1.00	33.3	1.89	0.697	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1	4C	0.0	0.00	33.3	1.89	0.695	2	1045	0.01800	0.00	0.00	0	124	0	2.32	0.00
1	5C	29.5	1.83	62.8	3.29	1.281	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1	6C	0.0	0.00	62.8	3.29	1.281	2	1347	0.01730	0.00	0.00	0	124	0	2.24	0.00
1	7C	25.1	1.54	87.9	4.32	1.773	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1	8C	0.0	0.00	87.9	4.32	1.772	2	1037	0.01750	0.00	0.00	0	124	0	2.21	0.00
1	9C	20.7	1.25	108.6	5.07	2.171	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1	10C	0.0	0.00	108.6	5.07	2.168	2	733	0.01640	0.00	0.00	0	124	0	2.17	0.00
1	11C	25.8	1.53	134.4	6.03	2.656	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1	12C	0.0	0.00	134.4	6.03	2.651	2	713	0.01620	0.00	0.00	0	124	0	2.13	0.00
1	13C	31.9	1.89	166.3	7.28	3.255	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1	14C	0.0	0.00	166.3	7.28	3.246	2	939	0.01560	0.00	0.00	0	124	0	2.13	0.00
1	15C	34.6	2.01	200.9	8.54	3.888	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1	16C	0.0	0.00	200.9	8.54	3.876	2	903	0.01260	0.00	0.00	0	124	0	2.09	0.00
1	17C	32.8	1.83	233.7	9.55	4.462	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1	18C	0.0	0.00	233.7	9.55	4.444	2	1112	0.01420	0.00	0.00	0	124	0	2.01	0.00
1	19C	23.2	1.25	256.9	9.89	4.843	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1	20C	0.0	0.00	256.9	9.89	4.818	2	1160	0.01210	0.00	0.00	0	124	0	1.94	0.00
1	21C	29.7	1.50	286.6	10.11	5.298	0	0	0.00000	0.00	0.00	0	124	30	1.82	0.01
1	22C	0.0	0.00	286.6	10.11	5.255	2	1549	0.01130	0.00	0.00	0	124	0	1.82	0.00
1	23C	35.4	1.60	322.0	10.32	5.767	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1	24C	0.0	0.00	322.0	10.32	5.697	2	1993	0.01060	0.00	0.00	0	124	0	1.63	0.00
1	25C	28.1	1.18	350.1	10.33	6.074	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1	26C	0.0	0.00	350.1	10.33	6.042	2	765	0.00890	0.00	0.00	0	124	0	1.51	0.00
1	27C	35.0	1.35	385.1	10.54	6.473	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	28C	0.0	0.00	385.1	10.54	6.379	2	1922	0.00820	0.00	0.00	0	124	0	1.39	0.00
1	29C	34.0	1.27	419.1	10.55	6.786	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	30C	0.0	0.00	419.1	10.55	6.716	2	1457	0.01040	0.00	0.00	0	124	0	1.35	0.00
1	31C	29.3	1.07	448.4	10.63	7.059	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	32C	0.0	0.00	448.4	10.63	6.993	2	1251	0.01080	0.00	0.00	0	124	0	1.32	0.00
1	33C	35.6	1.26	484.0	10.76	7.397	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1	34C	0.0	0.00	484.0	10.76	7.278	2	2107	0.01100	0.00	0.00	0	124	0	1.28	0.00
1	35D	16.7	0.93	16.7	0.93	0.298	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	36D	0.0	0.00	16.7	0.93	0.233	2	1299	0.01300	0.00	0.00	0	134	0	2.01	0.00
1	37D	29.0	1.56	45.7	2.18	0.733	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1	38D	0.0	0.00	45.7	2.18	0.731	2	1308	0.01380	0.00	0.00	0	124	0	1.94	0.00
1	39D	29.9	1.54	75.6	3.25	1.225	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1	40D	0.0	0.00	75.6	3.25	1.224	2	1530	0.01050	0.00	0.00	0	124	0	1.86	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.03	97.0	3.53	1.555	0	0	0.00000	0.00	0.00	0	124	30	1.74	0.01
1 42D	0.0	0.00	97.0	3.53	1.550	2	1185	0.01070	0.00	0.00	0	124	0	1.74	0.00
1 43D	26.1	1.18	123.1	3.85	1.927	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 44D	0.0	0.00	123.1	3.85	1.915	2	1524	0.01060	0.00	0.00	0	124	0	1.63	0.00
1 45D	30.2	1.30	153.3	4.18	2.331	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 46D	0.0	0.00	153.3	4.18	2.307	2	1697	0.00840	0.00	0.00	0	124	0	1.55	0.00
1 47D	30.2	1.17	183.5	4.24	2.680	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 48D	0.0	0.00	183.5	4.24	2.659	2	1239	0.00990	0.00	0.00	0	124	0	1.39	0.00
1 49D	39.0	1.46	222.5	4.86	3.127	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1 50D	0.0	0.00	222.5	4.86	3.094	2	1500	0.00870	0.00	0.00	0	124	0	1.35	0.00
1 51D	31.8	1.17	254.3	5.16	3.466	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 52D	0.0	0.00	254.3	5.16	3.438	2	1258	0.01140	0.00	0.00	0	124	0	1.32	0.00
1 53D	23.0	1.03	277.3	5.43	3.769	0	0	0.00000	0.00	0.00	0	124	30	1.62	0.01
1 54D	0.0	0.00	277.3	5.43	3.732	2	1118	0.00760	0.00	0.00	0	124	0	1.62	0.00
1 55D	14.6	0.52	291.9	5.42	3.898	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1 56D	0.0	0.00	291.9	5.42	3.857	2	1256	0.00990	0.00	0.00	0	124	0	1.28	0.00

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*****************************************************************************************************************
*                                                  CONFLUENCE Q'S                                               *
* 1   57C  TC 1287 QC    10.64 QCD    15.49 QD     4.85       1   57D  TD 1213 QD     5.38 QD     0.00 Q6C     8.56 Q□     1.#R
*                                        1   57CD TCD 1284 QCD    15.51 QC    10.63 QD     4.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	5.38	775.9	15.51	11.133	2	5	0.00100	0.00	0.00	0	124	0	1.28	0.00
1 58E	12.6	0.45	12.6	0.45	0.143	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1 59E	0.0	0.00	12.6	0.45	0.049	2	1440	0.01150	0.00	0.00	0	124	0	1.28	0.00
1 60E	28.7	0.99	41.3	1.21	0.365	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.01
1 61E	0.0	0.00	41.3	1.21	0.314	2	3334	0.01150	0.00	0.00	0	124	0	1.24	0.00
1 62F	16.5	20.38	16.5	20.38	2.354	0	0	0.00000	0.00	0.00	0	124	30	12.36	0.01
1 63F	0.0	0.00	16.5	20.38	2.353	2	1673	0.02100	0.00	0.00	0	124	0	12.36	0.00
1 64F	24.0	1.55	40.5	20.17	2.847	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1 65F	0.0	0.00	40.5	20.17	2.846	2	955	0.02000	0.00	0.00	0	124	0	2.32	0.00
1 66F	33.9	2.11	74.4	21.47	3.520	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1 67F	0.0	0.00	74.4	21.47	3.514	2	1251	0.01830	0.00	0.00	0	124	0	2.24	0.00
1 68F	29.6	1.82	104.0	21.54	4.095	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1 69F	0.0	0.00	104.0	21.54	4.084	2	1122	0.01740	0.00	0.00	0	124	0	2.21	0.00
1 70F	25.9	1.56	129.9	21.31	4.583	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1 71F	0.0	0.00	129.9	21.31	4.571	2	874	0.01460	0.00	0.00	0	124	0	2.17	0.00
1 72F	26.7	1.58	156.6	21.31	5.076	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 73F	0.0	0.00	156.6	21.31	5.061	2	907	0.01500	0.00	0.00	0	124	0	2.13	0.00
1 74F	29.9	1.73	186.5	21.32	5.616	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1 75F	0.0	0.00	186.5	21.32	5.599	2	876	0.01400	0.00	0.00	0	124	0	2.09	0.00
1 76F	39.5	2.20	226.0	21.43	6.303	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1 77F	0.0	0.00	226.0	21.43	6.283	2	987	0.01600	0.00	0.00	0	124	0	2.01	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	2.09	264.8	21.48	6.951	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 79F	0.0	0.00	264.8	21.48	6.927	2	900	0.01300	0.00	0.00	0	124	0	1.94	0.00
1 80F	39.6	2.04	304.4	21.51	7.581	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 81F	0.0	0.00	304.4	21.51	7.558	2	831	0.01430	0.00	0.00	0	124	0	1.86	0.00
1 82F	39.9	1.97	344.3	21.61	8.188	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 83F	0.0	0.00	344.3	21.61	8.160	2	829	0.01210	0.00	0.00	0	124	0	1.78	0.00
1 84F	39.8	1.88	384.1	21.65	8.761	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 85F	0.0	0.00	384.1	21.65	8.728	2	853	0.01170	0.00	0.00	0	124	0	1.70	0.00
1 86F	39.1	1.85	423.2	21.68	9.319	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 87F	0.0	0.00	423.2	21.68	9.268	2	1094	0.00990	0.00	0.00	0	124	0	1.70	0.00
1 88F	22.9	1.04	446.1	21.37	9.599	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 89F	0.0	0.00	446.1	21.37	9.549	2	845	0.00780	0.00	0.00	0	124	0	1.63	0.00
1 90F	36.2	1.52	482.3	21.28	10.034	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1 91F	0.0	0.00	482.3	21.28	9.931	2	1675	0.00880	0.00	0.00	0	124	0	1.51	0.00
1 92F	23.7	0.91	506.0	20.61	10.223	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 93F	0.0	0.00	506.0	20.61	10.136	2	1298	0.00950	0.00	0.00	0	124	0	1.39	0.00
1 94F	17.9	0.67	523.9	20.32	10.350	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1 95F	0.0	0.00	523.9	20.32	10.272	2	1020	0.00840	0.00	0.00	0	124	0	1.35	0.00
1 96F	22.5	0.82	546.4	20.20	10.535	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 97F	0.0	0.00	546.4	20.20	10.404	2	1387	0.00640	0.00	0.00	0	124	0	1.32	0.00
1 98F	21.4	0.78	567.8	19.85	10.655	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 99F	0.0	0.00	567.8	19.85	10.553	2	1222	0.00990	0.00	0.00	0	124	0	1.32	0.00
1 100F	16.7	0.59	584.5	19.71	10.743	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1 101F	0.0	0.00	584.5	19.71	10.642	2	1247	0.01150	0.00	0.00	0	124	0	1.28	0.00
1 102F	23.0	0.79	607.5	19.64	10.896	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.01
1 103F	0.0	0.00	607.5	19.64	10.598	2	3287	0.01110	0.00	0.00	0	124	0	1.24	0.00
1 104G	18.2	0.65	18.2	0.65	0.207	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1 105G	0.0	0.00	18.2	0.65	0.107	2	1898	0.01040	0.00	0.00	0	134	0	1.28	0.00
1 106G	39.9	1.37	58.1	1.64	0.546	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 107G	0.0	0.00	58.1	1.64	0.545	2	2469	0.00900	0.00	0.00	0	134	0	1.24	0.00
1 109C	21.4	0.74	797.3	15.60	11.368	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.01
1 108CE	41.3	0.94	838.6	15.94	11.682	0	0	0.00000	0.00	0.00	0	124	0	1.24	0.00
1 109CF	607.5	18.93	1446.1	31.82	22.280	0	0	0.00000	0.00	0.00	0	124	0	1.24	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  110C  TC 1330 QC    31.82 QCG    32.09 QG     0.27       1  110G  TG 1198 QG     1.36 QG     0.00 QƒC    24.19 Q□     1.#R
*                                        1  110CG TCG 1329 QCG    32.09 QC    31.82 QG     0.27
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	1.36	1504.2	32.09	22.423	2	2279	0.00940	0.00	0.00	0	124	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinH.lac Run date: Tue Sep 22 10:59:55 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	0.68	19.0	0.68	0.216	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1	2H	0.0	0.00	19.0	0.68	0.117	2	1718	0.00900	0.00	0.00	0	134	0	1.28	0.00
1	3H	39.5	1.36	58.5	1.65	0.552	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	4H	0.0	0.00	58.5	1.65	0.551	2	1850	0.01100	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinI.lac Run date: Tue Sep 22 11:07:57 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	0.67	10.8	0.67	0.215	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1	2I	0.0	0.00	10.8	0.67	0.116	2	1416	0.01690	0.00	0.00	0	124	0	2.24	0.00
1	3I	18.1	1.11	28.9	1.55	0.471	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1	4I	0.0	0.00	28.9	1.55	0.455	2	929	0.01630	0.00	0.00	0	124	0	2.21	0.00
1	5I	12.8	1.06	41.7	2.17	0.707	0	0	0.00000	0.00	0.00	0	124	16	2.21	0.01
1	6I	0.0	0.00	41.7	2.17	0.694	2	459	0.01690	0.00	0.00	0	124	0	2.21	0.00
1	7I	16.5	1.34	58.2	3.22	1.013	0	0	0.00000	0.00	0.00	0	134	16	2.17	0.01
1	8I	0.0	0.00	58.2	3.22	0.998	2	616	0.01360	0.00	0.00	0	134	0	2.17	0.00
1	9I	25.9	1.73	84.1	4.68	1.498	0	0	0.00000	0.00	0.00	0	134	24	2.17	0.01
1	10I	0.0	0.00	84.1	4.68	1.497	2	879	0.01490	0.00	0.00	0	134	0	2.17	0.00
1	11I	26.8	1.58	110.9	5.89	2.004	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1	12I	0.0	0.00	110.9	5.89	2.004	2	968	0.01270	0.00	0.00	0	134	0	2.13	0.00
1	13I	31.1	1.77	142.0	6.94	2.570	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1	14I	0.0	0.00	142.0	6.94	2.567	2	1180	0.01260	0.00	0.00	0	134	0	2.05	0.00
1	15I	37.7	2.10	179.7	7.70	3.239	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	16I	0.0	0.00	179.7	7.70	3.224	2	1443	0.01290	0.00	0.00	0	134	0	2.01	0.00
1	17I	27.6	1.46	207.3	7.80	3.690	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1	18I	0.0	0.00	207.3	7.80	3.676	2	900	0.01190	0.00	0.00	0	134	0	1.90	0.00
1	19I	25.5	1.32	232.8	8.09	4.097	0	0	0.00000	0.00	0.00	0	134	30	1.86	0.01
1	20I	0.0	0.00	232.8	8.09	4.082	2	838	0.01250	0.00	0.00	0	134	0	1.86	0.00
1	21I	37.2	1.84	270.0	8.76	4.670	0	0	0.00000	0.00	0.00	0	134	30	1.78	0.01
1	22I	0.0	0.00	270.0	8.76	4.642	2	1165	0.01030	0.00	0.00	0	134	0	1.78	0.00
1	23I	34.3	1.62	304.3	9.19	5.160	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1	24I	0.0	0.00	304.3	9.19	5.133	2	1034	0.01070	0.00	0.00	0	134	0	1.70	0.00
1	25I	38.0	1.72	342.3	9.72	5.682	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1	26I	0.0	0.00	342.3	9.72	5.650	2	1049	0.01010	0.00	0.00	0	134	0	1.63	0.00
1	27I	39.5	1.61	381.8	10.10	6.165	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.01
1	28I	0.0	0.00	381.8	10.10	6.084	2	2077	0.00930	0.00	0.00	0	134	0	1.47	0.00
1	29I	29.4	1.10	411.2	10.07	6.436	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.01
1	30I	0.0	0.00	411.2	10.07	6.357	2	1661	0.00960	0.00	0.00	0	134	0	1.35	0.00
1	31I	39.6	1.45	450.8	10.26	6.821	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1	32I	0.0	0.00	450.8	10.26	6.756	2	1306	0.00980	0.00	0.00	0	134	0	1.32	0.00
1	33I	39.3	1.44	490.1	10.46	7.217	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1	34I	0.0	0.00	490.1	10.46	7.131	2	1279	0.00660	0.00	0.00	0	134	0	1.32	0.00
1	35I	26.7	0.95	516.8	10.56	7.435	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1	36I	0.0	0.00	516.8	10.56	7.385	2	878	0.01140	0.00	0.00	0	134	0	1.28	0.00
1	37I	37.9	1.30	554.7	10.73	7.802	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	38I	0.0	0.00	554.7	10.73	7.668	2	1809	0.00760	0.00	0.00	0	134	0	1.24	0.00
1	39J	27.8	1.55	27.8	1.55	0.496	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	40J	0.0	0.00	27.8	1.55	0.494	2	1645	0.01190	0.00	0.00	0	134	0	2.01	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.01	46.6	2.09	0.818	0	0	0.00000	0.00	0.00	0	134	30	1.94	0.01
1 42J	0.0	0.00	46.6	2.09	0.816	2	760	0.01290	0.00	0.00	0	134	0	1.94	0.00
1 43J	32.3	1.70	78.9	3.35	1.360	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1 44J	0.0	0.00	78.9	3.35	1.360	2	1022	0.01280	0.00	0.00	0	134	0	1.90	0.00
1 45J	32.3	1.63	111.2	4.52	1.882	0	0	0.00000	0.00	0.00	0	134	30	1.82	0.01
1 46J	0.0	0.00	111.2	4.52	1.879	2	1126	0.01150	0.00	0.00	0	134	0	1.82	0.00
1 47J	27.3	1.29	138.5	5.18	2.291	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1 48J	0.0	0.00	138.5	5.18	2.281	2	1116	0.01060	0.00	0.00	0	134	0	1.70	0.00
1 49J	22.5	1.02	161.0	5.35	2.606	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1 50J	0.0	0.00	161.0	5.35	2.592	2	1019	0.01040	0.00	0.00	0	134	0	1.63	0.00
1 51J	18.6	0.76	179.6	5.45	2.835	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.01
1 52J	0.0	0.00	179.6	5.45	2.815	2	1085	0.00980	0.00	0.00	0	134	0	1.47	0.00
1 53J	35.3	1.44	214.9	5.71	3.276	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.01
1 54J	0.0	0.00	214.9	5.71	3.249	2	1400	0.01030	0.00	0.00	0	134	0	1.47	0.00
1 55J	40.0	1.54	254.9	5.96	3.742	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.01
1 56J	0.0	0.00	254.9	5.96	3.702	2	1510	0.00790	0.00	0.00	0	134	0	1.39	0.00
1 57J	40.0	1.47	294.9	6.19	4.171	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 58J	0.0	0.00	294.9	6.19	4.130	2	1410	0.00900	0.00	0.00	0	134	0	1.32	0.00
1 59J	37.3	1.33	332.2	6.41	4.554	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1 60J	0.0	0.00	332.2	6.41	4.506	2	1434	0.00910	0.00	0.00	0	134	0	1.28	0.00
1 61J	28.5	0.98	360.7	6.52	4.819	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 62J	0.0	0.00	360.7	6.52	4.725	2	2082	0.00730	0.00	0.00	0	134	0	1.24	0.00

****
* CONFLUENCE Q'S *
* 1 63I TI 1284 QI 10.67 QIJ 17.11 QJ 6.44 1 63J TJ 1271 QJ 6.48 QJ 0.00 Q†I 10.57 Q□ 1.#R
* 1 63IJ TIJ 1280 QIJ 17.12 QI 10.66 QJ 6.46
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	6.48	915.4	17.12	12.392	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinK.lac   Run date: Thu Sep 24 15:23:04 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	136.5	342.07	136.5	342.07	16.070	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	136.5	342.07	16.071	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	1.48	158.0	336.69	16.545	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1	4K	0.0	0.00	158.0	336.69	16.540	2	571	0.03050	0.00	0.00	0	124	0	2.48	0.00
1	5K	39.6	2.68	197.6	335.47	17.398	0	0	0.00000	0.00	0.00	0	124	30	2.44	0.01
1	6B	39.7	1.37	39.7	1.37	0.437	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	6K	0.0	0.00	197.6	335.47	17.403	2	1014	0.02040	0.00	0.00	0	134	0	1.24	0.00
1	7K	39.6	2.64	237.2	326.43	18.246	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1	8K	0.0	0.00	237.2	326.43	18.242	2	1054	0.01830	0.00	0.00	0	124	0	2.40	0.00
1	9K	30.7	1.98	267.9	315.44	18.875	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1	10K	0.0	0.00	267.9	315.44	18.863	2	957	0.01610	0.00	0.00	0	134	0	2.32	0.00
1	11K	33.2	2.10	301.1	306.14	19.535	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	12K	0.0	0.00	301.1	306.14	19.491	2	1511	0.01470	0.00	0.00	0	134	0	2.28	0.00
1	13L	28.8	2.04	28.8	2.04	0.652	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1	14L	0.0	0.00	28.8	2.04	0.651	2	659	0.02120	0.00	0.00	0	134	0	2.55	0.00
1	15L	24.8	1.73	53.6	3.67	1.206	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1	16L	0.0	0.00	53.6	3.67	1.205	2	724	0.02090	0.00	0.00	0	134	0	2.52	0.00
1	17B	39.1	1.43	78.8	2.80	0.895	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1	18L	0.0	0.00	53.6	3.61	1.205	2	1152	0.01700	0.00	0.00	0	134	0	1.32	0.00
1	19L	21.3	1.42	74.9	4.43	1.659	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1	20L	0.0	0.00	74.9	4.43	1.657	2	1374	0.01640	0.00	0.00	0	134	0	2.40	0.00
1	21L	17.9	1.15	92.8	4.63	2.025	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1	22L	0.0	0.00	92.8	4.63	2.014	2	1523	0.01560	0.00	0.00	0	134	0	2.32	0.00

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*******************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                     *
* 1   23K  TK 1170 QK   280.97 QKL   284.27 QL     3.30       1   23L  TL 1197 QL     4.47
QL6999700513661653000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000.00 Q¼K    36.70 Q□     1.#R
*                                        1   23KL TKL 1170 QKL   284.27 QK   280.97 QL     3.30
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	4.47	393.9	284.27	21.471	2	709	0.01300	0.00	0.00	0	134	0	2.32	0.00
1	24K	30.9	1.86	424.8	280.35	22.067	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1	25K	0.0	0.00	424.8	280.35	22.021	2	778	0.01320	0.00	0.00	0	134	0	2.17	0.00
1	26K	32.3	1.95	457.1	275.46	22.644	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1	27K	0.0	0.00	457.1	275.46	22.572	2	881	0.01070	0.00	0.00	0	134	0	2.17	0.00
1	28K	28.9	1.71	486.0	265.48	23.119	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1	29K	0.0	0.00	486.0	265.48	23.038	2	934	0.01050	0.00	0.00	0	134	0	2.13	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 30K	21.2	1.23	507.2	255.98	23.432	0	0	0.00000	0.00	0.00	0	134	30	2.09	0.01
1 31K	0.0	0.00	507.2	255.98	23.365	2	853	0.01320	0.00	0.00	0	134	0	2.09	0.00
1 32M	486.7	2054.87	486.7	2054.87	265.980	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	486.7	2054.87	265.603	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	2.24	518.4	1988.09	266.321	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 35M	0.0	0.00	518.4	1988.09	266.308	2	1319	0.02170	0.00	0.00	0	134	0	2.55	0.00
1 36M	29.5	2.03	547.9	1902.52	266.958	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 37M	0.0	0.00	547.9	1902.52	266.916	2	1114	0.01940	0.00	0.00	0	134	0	2.48	0.00
1 38M	27.9	1.86	575.8	1845.35	267.510	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 39M	0.0	0.00	575.8	1845.35	267.467	2	1014	0.01810	0.00	0.00	0	134	0	2.40	0.00
1 40M	39.2	2.57	615.0	1786.81	268.288	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 41M	0.0	0.00	615.0	1786.81	268.286	2	1409	0.01550	0.00	0.00	0	134	0	2.36	0.00
1 42N	197.3	411.01	197.3	411.01	23.129	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	197.3	411.01	23.130	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	2.80	236.8	400.58	24.024	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 45N	0.0	0.00	236.8	400.58	24.021	2	684	0.05170	0.00	0.00	0	134	0	2.55	0.00
1 46N	38.9	2.72	275.7	401.53	24.891	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1 47N	0.0	0.00	275.7	401.53	24.885	2	702	0.02820	0.00	0.00	0	134	0	2.52	0.00
1 48N	37.9	2.61	313.6	400.94	25.719	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 49N	0.0	0.00	313.6	400.94	25.725	2	938	0.02310	0.00	0.00	0	134	0	2.48	0.00
1 50N	32.3	2.15	345.9	398.56	26.414	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 51N	0.0	0.00	345.9	398.56	26.341	2	1933	0.00920	0.00	0.00	0	134	0	2.40	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1162 QM 1705.52 QMN 1868.06 QN 162.54 1 52N TN 1170 QN 354.77 QN 0.00 Q□M 668.86 Q□ 1.#R
* 1 52MN TMN 1162 QMN 1868.06 QM 1705.52 QN 162.54
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	345.9	354.77	960.9	1868.06	294.517	2	885	0.02080	0.00	0.00	0	134	0	2.40	0.00
1 53M	18.1	1.23	979.0	1831.90	294.909	0	0	0.00000	0.00	0.00	0	134	30	2.44	0.01
1 54M	0.0	0.00	979.0	1831.90	294.627	2	1259	0.00920	0.00	0.00	0	134	0	2.44	0.00
1 55O	35.7	2.38	35.7	2.38	0.761	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 56O	0.0	0.00	35.7	2.38	0.759	2	2369	0.01220	0.00	0.00	0	134	0	2.40	0.00
1 57B	40.0	2.66	118.8	5.46	1.748	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 58O	0.0	0.00	35.7	1.95	0.756	2	1288	0.01250	0.00	0.00	0	134	0	2.40	0.00

****
* CONFLUENCE Q'S *
* 1 59M TM 1166 QM 1757.65 QMO 1758.55 QO 0.89 1 59O TO 1204 QO 1.84 QO-
8009971150952410100000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000.00 QTM 267.36 Q□ 1.#R
* 1 59MO TMO 1166 QMO 1758.55 QM 1757.65 QO 0.89
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	1.84	1014.7	1758.55	295.100	2	934	0.01150	0.00	0.00	0	134	0	2.40	0.00
1 60M	21.5	1.30	1036.2	1725.64	295.514	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 61M	0.0	0.00	1036.2	1725.64	295.161	2	1075	0.01320	0.00	0.00	0	134	0	2.17	0.00
1 62M	0.0	0.00	1036.2	1691.63	295.159	2	5	0.01000	0.00	0.00	0	134	0	2.17	0.00

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* CONFLUENCE Q'S *
* 1 63K TK 1185 QK 249.35 QKM 961.30 QM 711.95 1 63M TM 1170 QM 1691.55
QM36354496738566044000000000000000000000000000000000000.00 QÝK 43.92 Q□ 1.#R
* 1 63KM TKM 1170 QKM 1735.47 QK 43.92 QM 1691.55
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1036.2	1691.55	1543.4	1735.47	318.522	2	5	0.01000	0.00	0.00	0	134	0	2.17	0.00
1 64K	31.4	1.86	1574.8	1737.06	319.116	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1 65K	0.0	0.00	1574.8	1737.06	318.724	2	784	0.01050	0.00	0.00	0	134	0	2.13	0.00
1 66K	37.2	2.16	1612.0	1712.23	319.414	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1 67K	0.0	0.00	1612.0	1712.23	318.990	2	770	0.01080	0.00	0.00	0	124	0	2.09	0.00
1 68K	34.7	1.94	1646.7	1697.52	319.609	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1 69K	0.0	0.00	1646.7	1697.52	319.020	2	992	0.01000	0.00	0.00	0	124	0	2.01	0.00
1 70K	19.1	1.03	1665.8	1669.39	319.349	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 71K	0.0	0.00	1665.8	1669.39	318.630	2	975	0.00800	0.00	0.00	0	124	0	1.94	0.00
1 72K	10.9	0.57	1676.7	1635.04	318.814	0	0	0.00000	0.00	0.00	0	124	30	1.90	0.01
1 73K	0.0	0.00	1676.7	1635.04	318.167	2	715	0.00700	0.00	0.00	0	124	0	1.90	0.00
1 74K	24.2	1.25	1700.9	1618.12	318.567	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 75K	0.0	0.00	1700.9	1618.12	317.795	2	1168	0.01280	0.00	0.00	0	124	0	1.86	0.00
1 76P	32.2	103.06	32.2	103.06	3.805	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	32.2	103.06	3.801	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	1.88	58.7	101.61	4.401	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 79P	0.0	0.00	58.7	101.61	4.402	2	1220	0.00870	0.00	0.00	0	124	0	2.55	0.00
1 80P	39.7	2.73	98.4	79.31	5.276	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 81P	0.0	0.00	98.4	79.31	5.263	2	2419	0.01850	0.00	0.00	0	134	0	2.48	0.00
1 82Q	40.0	2.83	40.0	2.83	0.906	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 83Q	0.0	0.00	40.0	2.83	0.905	2	1582	0.02720	0.00	0.00	0	134	0	2.55	0.00
1 84Q	40.0	2.75	80.0	5.13	1.786	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 85Q	0.0	0.00	80.0	5.13	1.784	2	1847	0.02110	0.00	0.00	0	134	0	2.48	0.00

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* CONFLUENCE Q'S *
* 1 86P TP 1170 QP 57.48 QPQ 61.63 QQ 4.15 1 86Q TQ 1183 QQ 4.85 QQ -0.00 QSP 30.14 Q□ 1.#R
* 1 86PQ TPQ 1170 QPQ 61.63 QP 57.48 QQ 4.15
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	4.85	178.4	61.63	7.034	2	949	0.02000	0.00	0.00	0	134	0	2.48	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 87P	40.0	2.75	218.4	61.48	7.915	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 88P	0.0	0.00	218.4	61.48	7.893	2	856	0.01150	0.00	0.00	0	134	0	2.48	0.00
1 89P	40.0	2.53	258.4	60.24	8.702	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 90P	0.0	0.00	258.4	60.24	8.670	2	1066	0.01300	0.00	0.00	0	134	0	2.28	0.00
1 91P	40.0	2.49	298.4	57.74	9.465	0	0	0.00000	0.00	0.00	0	134	30	2.24	0.01
1 92P	0.0	0.00	298.4	57.74	9.413	2	1323	0.01000	0.00	0.00	0	134	0	2.24	0.00
1 93P	38.5	2.32	336.9	53.63	10.155	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 94P	0.0	0.00	336.9	53.63	10.099	2	1231	0.00980	0.00	0.00	0	134	0	2.17	0.00
1 95P	32.9	1.95	369.8	51.01	10.721	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 96P	0.0	0.00	369.8	51.01	10.575	2	853	0.00100	0.00	0.00	0	124	0	2.13	0.00
1 97P	32.3	1.84	402.1	43.78	11.162	0	0	0.00000	0.00	0.00	0	124	30	2.05	0.01
1 98P	0.0	0.00	402.1	43.78	11.103	2	903	0.00830	0.00	0.00	0	124	0	2.05	0.00
1 99P	36.0	1.97	438.1	43.34	11.732	0	0	0.00000	0.00	0.00	0	124	30	1.97	0.01
1 100P	0.0	0.00	438.1	43.34	11.646	2	1173	0.00770	0.00	0.00	0	124	0	1.97	0.00
1 101P	22.9	1.23	461.0	42.20	12.041	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 102P	0.0	0.00	461.0	42.20	11.990	2	832	0.01210	0.00	0.00	0	124	0	1.94	0.00
1 103P	12.6	0.65	473.6	41.93	12.198	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 104P	0.0	0.00	473.6	41.93	12.132	2	949	0.01050	0.00	0.00	0	124	0	1.86	0.00

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* CONFLUENCE Q'S *

* 1 105K TK 1181 QK 1591.49 QKP 1604.15 QP 12.65 1 105P TP 1246 QP 41.35

QP5072807775211081400000000000000000000000000000000000000000000000000000000000000000000000000000.00 QpK 242.61 Q□ 1.#R

* 1 105KP TKP 1181 QKP 1604.15 QK 1591.49 QP 12.65

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	473.6	41.35	2174.5	1604.15	329.922	2	5	0.01000	0.00	0.00	0	124	0	1.86	0.00
1 106K	32.1	1.62	2206.6	1604.88	330.441	0	0	0.00000	0.00	0.00	0	124	30	1.82	0.01
1 107K	0.0	0.00	2206.6	1604.88	329.718	2	913	0.01100	0.00	0.00	0	124	0	1.82	0.00
1 108K	37.7	1.86	2244.3	1589.34	330.313	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 109K	0.0	0.00	2244.3	1589.34	329.431	2	1081	0.01000	0.00	0.00	0	124	0	1.78	0.00
1 110K	39.4	1.86	2283.7	1563.12	330.025	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 111K	0.0	0.00	2283.7	1563.12	329.243	2	1044	0.01240	0.00	0.00	0	124	0	1.70	0.00
1 112K	39.8	1.80	2323.5	1546.86	329.819	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 113K	0.0	0.00	2323.5	1546.86	328.932	2	1121	0.01110	0.00	0.00	0	124	0	1.63	0.00
1 114K	40.0	1.72	2363.5	1528.43	329.483	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 115K	0.0	0.00	2363.5	1528.43	328.657	2	960	0.00950	0.00	0.00	0	124	0	1.55	0.00
1 116K	39.8	1.62	2403.3	1512.13	329.176	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1 117K	0.0	0.00	2403.3	1512.13	328.385	2	919	0.00990	0.00	0.00	0	124	0	1.47	0.00
1 118K	39.8	1.54	2443.1	1498.11	328.876	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.01
1 119K	0.0	0.00	2443.1	1498.11	328.347	2	835	0.01980	0.00	0.00	0	134	0	1.39	0.00
1 120K	22.4	0.84	2465.5	1488.27	328.616	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.01
1 121K	0.0	0.00	2465.5	1488.27	327.583	2	1042	0.00770	0.00	0.00	0	134	0	1.35	0.00
1 122R	21.6	1.25	21.6	1.25	0.401	0	0	0.00000	0.00	0.00	0	134	30	2.09	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 123R	0.0	0.00	21.6	1.25	0.399	2	1940	0.01230	0.00	0.00	0	134	0	2.09	0.00
1 124R	32.5	1.85	54.1	2.49	0.990	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1 125R	0.0	0.00	54.1	2.49	0.990	2	1189	0.01320	0.00	0.00	0	134	0	2.05	0.00
1 126R	23.9	1.33	78.0	3.43	1.416	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1 127R	0.0	0.00	78.0	3.43	1.416	2	803	0.01280	0.00	0.00	0	134	0	2.01	0.00
1 128R	28.8	1.64	106.8	4.63	1.940	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1 129R	0.0	0.00	106.8	4.63	1.937	2	966	0.01040	0.00	0.00	0	134	0	2.05	0.00
1 130R	29.3	1.58	136.1	5.54	2.441	0	0	0.00000	0.00	0.00	0	134	30	1.94	0.01
1 131R	0.0	0.00	136.1	5.54	2.435	2	795	0.00960	0.00	0.00	0	134	0	1.94	0.00
1 132R	27.5	1.45	163.6	6.29	2.898	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1 133R	0.0	0.00	163.6	6.29	2.890	2	759	0.01050	0.00	0.00	0	134	0	1.90	0.00
1 134R	27.3	1.41	190.9	6.99	3.341	0	0	0.00000	0.00	0.00	0	134	30	1.86	0.01
1 135R	0.0	0.00	190.9	6.99	3.330	2	740	0.00980	0.00	0.00	0	134	0	1.86	0.00
1 136R	29.4	1.49	220.3	7.67	3.805	0	0	0.00000	0.00	0.00	0	134	30	1.82	0.01
1 137R	0.0	0.00	220.3	7.67	3.790	2	849	0.01000	0.00	0.00	0	134	0	1.82	0.00
1 138R	36.9	1.82	257.2	8.48	4.373	0	0	0.00000	0.00	0.00	0	134	30	1.78	0.01
1 139R	0.0	0.00	257.2	8.48	4.353	2	960	0.01020	0.00	0.00	0	134	0	1.78	0.00
1 140R	27.6	1.30	284.8	8.85	4.769	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1 141R	0.0	0.00	284.8	8.85	4.754	2	705	0.01250	0.00	0.00	0	134	0	1.70	0.00
1 142R	36.0	1.63	320.8	9.57	5.275	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1 143R	0.0	0.00	320.8	9.57	5.249	2	966	0.01040	0.00	0.00	0	134	0	1.63	0.00
1 144R	39.6	1.99	360.4	10.32	5.885	0	0	0.00000	0.00	0.00	0	134	30	1.81	0.01
1 145R	0.0	0.00	360.4	10.32	5.850	2	1078	0.00940	0.00	0.00	0	134	0	1.81	0.00
1 146R	27.4	1.06	387.8	10.41	6.188	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.01
1 147R	0.0	0.00	387.8	10.41	6.166	2	693	0.01440	0.00	0.00	0	134	0	1.39	0.00
1 148R	27.6	1.06	415.4	10.67	6.507	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.01
1 149R	0.0	0.00	415.4	10.67	6.454	2	1266	0.00970	0.00	0.00	0	134	0	1.39	0.00
1 150R	20.7	0.78	436.1	10.78	6.702	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.01
1 151R	0.0	0.00	436.1	10.78	6.637	2	1379	0.00960	0.00	0.00	0	134	0	1.35	0.00

```
*****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                          *
* 1  152K  TK 1198 QK  1466.66 QKR  1476.77 QR    10.11       1  152R  TR 1217 QR    10.70 QR     0.00 QLK   915.46 Q□     1.#R
*                                   1  152KR TKR 1198 QKR  1476.77 QK  1466.66 QR    10.11
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	10.70	2901.6	1476.77	333.016	2	1212	0.00830	0.00	0.00	0	134	0	1.35	0.00
1 153K	38.8	1.42	2940.4	1448.79	333.471	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 154K	0.0	0.00	2940.4	1448.79	331.569	2	2066	0.00970	0.00	0.00	0	134	0	1.32	0.00
1 155K	27.3	0.97	2967.7	1392.08	331.879	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1 156K	0.0	0.00	2967.7	1392.08	330.199	2	1710	0.00880	0.00	0.00	0	134	0	1.28	0.00
1 157K	22.1	0.76	2989.8	1358.80	330.442	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 158K	0.0	0.00	2989.8	1358.80	328.733	2	1697	0.00870	0.00	0.00	0	134	0	1.24	0.00
1 159S	39.3	1.40	39.3	1.40	0.447	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 160S	0.0	0.00	39.3	1.40	0.445	2	2302	0.01100	0.00	0.00	0	134	0	1.28	0.00
1 161S	36.7	1.26	76.0	1.93	0.849	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 162S	0.0	0.00	76.0	1.93	0.847	2	2012	0.01210	0.00	0.00	0	134	0	1.24	0.00
1 163T	16.1	0.59	16.1	0.59	0.189	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 164T	0.0	0.00	16.1	0.59	0.088	2	1839	0.00880	0.00	0.00	0	134	0	1.32	0.00
1 165T	28.5	1.04	44.6	1.28	0.422	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 166T	0.0	0.00	44.6	1.28	0.386	2	887	0.01190	0.00	0.00	0	134	0	1.32	0.00
1 167T	38.0	1.31	82.6	2.39	0.804	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 168T	0.0	0.00	82.6	2.39	0.802	2	1078	0.00880	0.00	0.00	0	134	0	1.24	0.00
1 169T	39.8	1.37	122.4	3.26	1.240	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 170T	0.0	0.00	122.4	3.26	1.240	2	1337	0.01200	0.00	0.00	0	134	0	1.24	0.00
1 171T	29.2	1.01	151.6	3.61	1.561	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 172T	0.0	0.00	151.6	3.61	1.554	2	1813	0.00980	0.00	0.00	0	134	0	1.24	0.00
1 173KS	76.0	1.77	3065.8	1331.84	329.580	0	0	0.00000	0.00	0.00	0	134	0	1.24	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1215 QK 1331.84 QKT 1334.99 QT 3.15 1 174T TT 1201 QT 3.34 QT 0.00 QÒK 456.40 Q□ 1.#R
* 1 174KT TKT 1215 QKT 1334.99 QK 1331.84 QT 3.15
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	3.34	3217.4	1334.99	330.026	2	1115	0.00920	0.00	0.00	0	134	0	1.24	0.00
1 175K	28.5	0.98	3245.9	1324.61	330.340	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 176K	0.0	0.00	3245.9	1324.61	328.358	2	1834	0.00810	0.00	0.00	0	134	0	1.24	0.00
1 177U	29.4	1.01	29.4	1.01	0.324	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 178U	29.1	1.00	58.5	2.01	0.644	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 179U	0.0	0.00	58.5	2.01	0.640	2	3079	0.00820	0.00	0.00	0	134	0	1.24	0.00
1 180U	31.8	1.09	90.3	1.81	0.990	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 181U	0.0	0.00	90.3	1.81	0.976	2	2207	0.01120	0.00	0.00	0	134	0	1.24	0.00
1 182U	21.3	0.73	111.6	2.01	1.211	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 183U	0.0	0.00	111.6	2.01	1.183	2	2448	0.00810	0.00	0.00	0	134	0	1.24	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1223 QK 1293.06 QKU 1294.86 QU 1.80 1 184U TU 1241 QU 1.81 QU -7845.14 QœK 926.77 Q□ 1.#R
* 1 184KU TKU 1223 QKU 1294.86 QK 1293.06 QU 1.80
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	1.81	3357.5	1294.86	329.535	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinV.lac Run date: Tue Sep 22 11:54:58 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	0.82	23.8	0.82	0.262	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	2V	0.0	0.00	23.8	0.82	0.177	2	1412	0.01030	0.00	0.00	0	134	0	1.24	0.00
1	3V	39.4	1.36	63.2	1.82	0.611	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	4V	0.0	0.00	63.2	1.82	0.609	2	1046	0.01150	0.00	0.00	0	134	0	1.24	0.00
1	5V	39.9	1.37	103.1	2.85	1.049	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	6V	0.0	0.00	103.1	2.85	1.048	2	892	0.01000	0.00	0.00	0	134	0	1.24	0.00
1	7V	40.0	1.38	143.1	3.78	1.488	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	8V	0.0	0.00	143.1	3.78	1.488	2	964	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\BasinW.lac Run date: Tue Sep 22 12:04:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1W	24.1	1.34	24.1	1.34	0.430	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1 2B	27.6	0.95	27.6	0.95	0.304	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1 2W	0.0	0.00	24.1	1.34	0.428	2	1848	0.01050	0.00	0.00	0	134	0	1.24	0.00
1 3W	22.3	1.20	46.4	1.97	0.812	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 4B	15.1	0.55	42.7	1.50	0.481	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 4W	0.0	0.00	46.4	1.97	0.812	2	1007	0.01070	0.00	0.00	0	134	0	1.32	0.00
1 5W	26.9	1.39	73.3	2.93	1.256	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 6W	0.0	0.00	73.3	2.93	1.255	2	1111	0.00990	0.00	0.00	0	124	0	1.86	0.00
1 7W	24.7	1.22	98.0	3.64	1.646	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 8W	0.0	0.00	98.0	3.64	1.637	2	1118	0.00710	0.00	0.00	0	124	0	1.78	0.00
1 9W	35.1	1.66	133.1	4.33	2.167	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 10W	0.0	0.00	133.1	4.33	2.154	2	1301	0.01000	0.00	0.00	0	124	0	1.70	0.00
1 11W	24.8	1.14	157.9	4.68	2.519	0	0	0.00000	0.00	0.00	0	124	30	1.66	0.01
1 12W	0.0	0.00	157.9	4.68	2.506	2	779	0.00750	0.00	0.00	0	124	0	1.66	0.00
1 13W	36.2	1.64	194.1	5.52	3.030	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 14W	0.0	0.00	194.1	5.52	3.018	2	915	0.01440	0.00	0.00	0	124	0	1.63	0.00
1 15W	33.0	1.42	227.1	6.35	3.472	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 16W	0.0	0.00	227.1	6.35	3.461	2	796	0.01390	0.00	0.00	0	124	0	1.55	0.00
1 17W	39.5	1.61	266.6	7.38	3.976	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1 18W	0.0	0.00	266.6	7.38	3.959	2	930	0.01200	0.00	0.00	0	124	0	1.47	0.00
1 19W	32.8	1.27	299.4	8.02	4.364	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 20W	0.0	0.00	299.4	8.02	4.346	2	774	0.00940	0.00	0.00	0	124	0	1.39	0.00
1 21W	35.4	1.37	334.8	8.57	4.783	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 22W	0.0	0.00	334.8	8.57	4.751	2	1066	0.00820	0.00	0.00	0	124	0	1.39	0.00
1 23W	19.1	0.72	353.9	8.53	4.980	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.01
1 24W	0.0	0.00	353.9	8.53	4.944	2	860	0.00630	0.00	0.00	0	134	0	1.35	0.00
1 25W	11.4	0.43	365.3	8.54	5.081	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.01
1 26W	0.0	0.00	365.3	8.54	5.052	2	684	0.00730	0.00	0.00	0	134	0	1.35	0.00
1 27W	22.7	0.83	388.0	8.68	5.318	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1 28W	0.0	0.00	388.0	8.68	5.238	2	1949	0.01030	0.00	0.00	0	134	0	1.32	0.00
1 29X	7.3	0.28	7.3	0.28	0.090	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 30X	0.0	0.00	7.3	0.28	0.019	2	1088	0.00760	0.00	0.00	0	124	0	1.39	0.00
1 31X	23.1	0.87	30.4	1.00	0.296	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1 32X	0.0	0.00	30.4	1.00	0.218	2	882	0.01350	0.00	0.00	0	124	0	1.35	0.00
1 33X	13.0	0.48	43.4	1.37	0.371	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 34X	0.0	0.00	43.4	1.37	0.328	2	429	0.01290	0.00	0.00	0	124	0	1.32	0.00
1 35X	18.5	0.68	61.9	1.92	0.545	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 36X	0.0	0.00	61.9	1.92	0.484	2	1115	0.01280	0.00	0.00	0	124	0	1.32	0.00
1 37WX	61.9	1.83	449.9	9.30	5.694	2	642	0.00980	0.00	0.00	0	124	0	1.32	0.00
1 38W	19.2	0.68	469.1	9.41	5.913	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	39W	0.0	0.00	469.1	9.41	5.840	2	1430	0.00960	0.00	0.00	0	124	0	1.28	0.00
1	40Y	6.4	0.25	6.4	0.25	0.079	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	41Y	0.0	0.00	6.4	0.25	0.014	2	970	0.00890	0.00	0.00	0	124	0	1.39	0.00
1	42Y	11.2	0.43	17.6	0.58	0.153	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	43Y	0.0	0.00	17.6	0.58	0.060	2	831	0.01140	0.00	0.00	0	124	0	1.39	0.00
1	44Y	15.6	0.58	33.2	1.04	0.247	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	45Y	0.0	0.00	33.2	1.04	0.147	2	883	0.01070	0.00	0.00	0	124	0	1.35	0.00
1	46Y	9.5	0.35	42.7	1.23	0.258	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	47Y	0.0	0.00	42.7	1.23	0.199	2	390	0.01680	0.00	0.00	0	124	0	1.32	0.00
1	48Y	13.1	0.47	55.8	1.55	0.348	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1	49Y	0.0	0.00	55.8	1.55	0.268	2	658	0.01670	0.00	0.00	0	124	0	1.28	0.00
1	50Y	24.4	0.87	80.2	2.16	0.546	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.01
1	51Y	0.0	0.00	80.2	2.16	0.468	2	1416	0.01050	0.00	0.00	0	124	0	1.28	0.00
1	52WY	80.2	2.02	549.3	10.41	6.216	2	1623	0.00800	0.00	0.00	0	124	0	1.28	0.00
1	53Z	12.8	0.55	12.8	0.55	0.176	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1	54Z	0.0	0.00	12.8	0.55	0.076	2	1273	0.01320	0.00	0.00	0	124	0	1.55	0.00
1	55Z	24.9	1.04	37.7	1.38	0.410	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1	56Z	0.0	0.00	37.7	1.38	0.373	2	1086	0.01170	0.00	0.00	0	124	0	1.51	0.00
1	57Z	25.8	1.02	63.5	2.12	0.701	0	0	0.00000	0.00	0.00	0	124	30	1.43	0.01
1	58Z	0.0	0.00	63.5	2.12	0.664	2	863	0.01350	0.00	0.00	0	124	0	1.43	0.00
1	59Z	30.1	1.16	93.6	2.95	1.036	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	60Z	0.0	0.00	93.6	2.95	1.034	2	922	0.01230	0.00	0.00	0	124	0	1.39	0.00
1	61Z	28.0	1.05	121.6	3.59	1.369	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	62Z	0.0	0.00	121.6	3.59	1.368	2	907	0.01020	0.00	0.00	0	124	0	1.35	0.00
1	63Z	32.7	1.23	154.3	4.22	1.760	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	64Z	0.0	0.00	154.3	4.22	1.759	2	1048	0.01130	0.00	0.00	0	124	0	1.35	0.00
1	65Z	25.7	0.94	180.0	4.52	2.060	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1	66Z	0.0	0.00	180.0	4.52	2.057	2	1003	0.01240	0.00	0.00	0	134	0	1.32	0.00
1	67Z	9.1	0.33	189.1	4.50	2.164	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.01
1	68Z	0.0	0.00	189.1	4.50	2.160	2	399	0.01470	0.00	0.00	0	134	0	1.32	0.00
1	69Z	24.4	0.87	213.5	4.77	2.438	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.01
1	70Z	0.0	0.00	213.5	4.77	2.425	2	1072	0.01280	0.00	0.00	0	134	0	1.28	0.00
1	71Z	27.0	0.93	240.5	4.96	2.722	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	72Z	0.0	0.00	240.5	4.96	2.697	2	1351	0.00920	0.00	0.00	0	134	0	1.24	0.00
1	73WZ	240.5	4.91	789.8	14.77	8.912	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\Basin100A.lac Run date: Tue Sep 22 12:14:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.35	8.2	0.35	0.113	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 102A	0.0	0.00	8.2	0.35	0.030	2	1080	0.01170	0.00	0.00	0	124	0	1.55	0.00
1 103A	17.4	0.71	25.6	0.93	0.257	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1 104A	0.0	0.00	25.6	0.93	0.161	2	846	0.01260	0.00	0.00	0	124	0	1.47	0.00
1 105A	18.4	0.73	44.0	1.51	0.394	0	0	0.00000	0.00	0.00	0	124	30	1.43	0.01
1 106A	0.0	0.00	44.0	1.51	0.300	2	782	0.01420	0.00	0.00	0	124	0	1.43	0.00
1 107A	24.3	1.02	68.3	2.22	0.600	0	0	0.00000	0.00	0.00	0	124	25	1.39	0.01
1 108A	0.0	0.00	68.3	2.22	0.536	2	822	0.01180	0.00	0.00	0	124	0	1.39	0.00
1 109A	21.0	0.92	89.3	2.74	0.796	0	0	0.00000	0.00	0.00	0	124	23	1.39	0.01
1 110A	0.0	0.00	89.3	2.74	0.741	2	717	0.01020	0.00	0.00	0	124	0	1.39	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q2\Basin100B.lac   Run date: Tue Sep 29 18:05:13 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	1.81	30.0	1.81	0.578	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1 14B	22.1	1.36	52.1	3.16	1.012	0	0	0.00000	0.00	0.00	0	134	30	2.21	0.01
1 20B	38.7	2.41	90.8	5.57	1.781	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1 21B	11.2	0.70	102.0	6.27	2.004	0	0	0.00000	0.00	0.00	0	134	30	2.24	0.01
1 28B	24.5	1.63	126.5	7.90	2.526	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 29B	7.6	0.51	134.1	8.40	2.688	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1 35B	15.5	1.08	149.6	9.49	3.035	0	0	0.00000	0.00	0.00	0	124	30	2.52	0.01
1 36B	29.0	2.05	178.6	11.54	3.691	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 100B	67.0	238.89	245.6	249.99	11.620	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.6	249.99	11.622	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	1.90	271.6	246.31	12.229	0	0	0.00000	0.00	0.00	0	124	30	2.63	0.01
1 103B	0.0	0.00	271.6	246.31	12.234	2	1058	0.04570	0.00	0.00	0	124	0	2.63	0.00
1 104B	24.8	1.76	296.4	236.13	12.795	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 105B	0.0	0.00	296.4	236.13	12.785	2	1470	0.02950	0.00	0.00	0	124	0	2.55	0.00
1 106B	18.1	1.25	314.5	207.64	13.183	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1 107B	0.0	0.00	314.5	207.64	13.176	2	959	0.01820	0.00	0.00	0	124	0	2.48	0.00
1 108C	279.4	582.04	279.4	582.04	32.754	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	279.4	582.04	32.764	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	2.85	319.1	569.98	33.677	0	0	0.00000	0.00	0.00	0	124	30	2.59	0.01
1 111C	0.0	0.00	319.1	569.98	33.690	2	1568	0.03970	0.00	0.00	0	124	0	2.59	0.00
1 112D	37.7	2.71	37.7	2.71	0.867	0	0	0.00000	0.00	0.00	0	124	30	2.59	0.01
1 113D	0.0	0.00	37.7	2.71	0.866	2	2150	0.02780	0.00	0.00	0	124	0	2.59	0.00

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****************************************************************************************************************************
*                                                   CONFLUENCE Q'S                                                         *
* 1  114C  TC 1160 QC   560.66 QCD   562.23 QD     1.57       1  114D  TD 1179 QD     2.45 QD-
28466562607908588000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000.00 Q□C    60.90 Qc     0.00
*                                            1  114CD TCD 1160 QCD   562.23 QC   560.66 QD     1.57
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	2.45	356.8	562.23	34.538	2	1532	0.02480	0.00	0.00	0	124	0	2.59	0.00
1 115C	12.0	0.83	368.8	547.59	34.803	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1 116C	0.0	0.00	368.8	547.59	34.791	2	949	0.01960	0.00	0.00	0	124	0	2.48	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   190.26 QBC   643.39 QC   453.14       1  117C  TC 1165 QC   541.20
QC68041232739012372000000000000000000000000000000000000000000.00 QvB   150.36 Qc     0.00
*                                      1  117BC TBC 1164 QBC   698.34 QB   169.37 QC   528.97
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	368.8	541.20	683.3	698.34	47.881	2	1210	0.01230	0.00	0.00	0	124	0	2.48	0.00
1 118B	34.1	2.20	717.4	674.24	48.584	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1 119B	0.0	0.00	717.4	674.24	48.518	2	944	0.01350	0.00	0.00	0	124	0	2.32	0.00
1 120E	31.1	2.20	31.1	2.20	0.704	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 121E	0.0	0.00	31.1	2.20	0.703	2	2049	0.03100	0.00	0.00	0	124	0	2.55	0.00
1 122E	18.9	1.32	50.0	3.11	1.126	0	0	0.00000	0.00	0.00	0	124	30	2.52	0.01
1 123E	0.0	0.00	50.0	3.11	1.125	2	866	0.03040	0.00	0.00	0	124	0	2.52	0.00
1 124E	37.4	2.53	87.4	5.17	1.935	0	0	0.00000	0.00	0.00	0	134	30	2.44	0.01
1 125E	0.0	0.00	87.4	5.17	1.933	2	1753	0.01750	0.00	0.00	0	134	0	2.44	0.00
1 126E	21.3	1.40	108.7	5.79	2.380	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 127E	0.0	0.00	108.7	5.79	2.375	2	919	0.01770	0.00	0.00	0	134	0	2.36	0.00
1 128E	16.6	1.29	125.3	6.01	2.718	0	0	0.00000	0.00	0.00	0	134	20	2.32	0.01
1 129E	0.0	0.00	125.3	6.01	2.708	2	904	0.01440	0.00	0.00	0	134	0	2.32	0.00

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*                                                CONFLUENCE Q'S                                                 *
* 1  130B  TB 1170 QB   663.45 QBE   668.53 QE     5.09       1  130E  TE 1191 QE     5.92 QE    -0.00 Q□B   138.89 Qc     0.00
*                                      1  130BE TBE 1170 QBE   668.53 QB   663.45 QE     5.09
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	5.92	842.7	668.53	51.086	2	1100	0.01140	0.00	0.00	0	134	0	2.32	0.00
1 131F	13.6	0.95	13.6	0.95	0.304	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1 132F	0.0	0.00	13.6	0.95	0.244	2	906	0.03180	0.00	0.00	0	134	0	2.52	0.00
1 133F	26.6	1.83	40.2	2.67	0.829	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 134F	0.0	0.00	40.2	2.67	0.828	2	1224	0.02140	0.00	0.00	0	134	0	2.48	0.00
1 135F	37.2	2.48	77.4	4.73	1.621	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 136F	0.0	0.00	77.4	4.73	1.620	2	1787	0.01630	0.00	0.00	0	134	0	2.40	0.00
1 137F	24.5	1.58	101.9	5.43	2.124	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1 138F	0.0	0.00	101.9	5.43	2.123	2	979	0.01940	0.00	0.00	0	134	0	2.32	0.00
1 139F	14.3	0.91	116.2	5.78	2.413	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 140F	0.0	0.00	116.2	5.78	2.407	2	790	0.01440	0.00	0.00	0	134	0	2.28	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 2

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****************************************************************************************************************************
*                                                           CONFLUENCE Q'S                                                 *
* 1  141B  TB 1173 QB   649.94 QBF   654.81 QF     4.87      1  141F  TF 1187 QF     5.67 QF-
10432488052026804000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
.00 QvB   267.43 Qc     0.00
*                                        1  141BF TBF 1173 QBF   654.81 QB   649.94 QF     4.87
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	5.67	958.9	654.81	53.307	2	1041	0.00840	0.00	0.00	0	134	0	2.28	0.00
1 142B	27.0	1.60	985.9	635.19	53.817	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 143B	0.0	0.00	985.9	635.19	53.678	2	872	0.01000	0.00	0.00	0	124	0	2.13	0.00
1 144B	24.7	1.41	1010.6	624.81	54.128	0	0	0.00000	0.00	0.00	0	124	30	2.05	0.01
1 145B	0.0	0.00	1010.6	624.81	53.923	2	1127	0.01000	0.00	0.00	0	124	0	2.05	0.00
1 146B	26.0	1.42	1036.6	606.74	54.378	0	0	0.00000	0.00	0.00	0	124	30	1.97	0.01
1 147B	0.0	0.00	1036.6	606.74	54.163	2	1083	0.00870	0.00	0.00	0	124	0	1.97	0.00
1 148B	22.6	1.19	1059.2	587.95	54.544	0	0	0.00000	0.00	0.00	0	124	30	1.90	0.01
1 149B	0.0	0.00	1059.2	587.95	54.336	2	872	0.00640	0.00	0.00	0	124	0	1.90	0.00
1 150B	28.5	1.41	1087.7	572.91	54.787	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 151B	0.0	0.00	1087.7	572.91	54.537	2	1358	0.01000	0.00	0.00	0	124	0	1.78	0.00
1 152B	23.4	1.10	1111.1	549.50	54.891	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 153B	0.0	0.00	1111.1	549.50	54.648	2	1217	0.00940	0.00	0.00	0	124	0	1.70	0.00
1 154B	20.9	0.95	1132.0	532.07	54.950	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 155B	0.0	0.00	1132.0	532.07	54.809	2	807	0.01170	0.00	0.00	0	124	0	1.63	0.00
1 156B	26.1	1.15	1158.1	527.67	55.177	0	0	0.00000	0.00	0.00	0	124	30	1.59	0.01
1 157B	0.0	0.00	1158.1	527.67	54.984	2	966	0.01090	0.00	0.00	0	124	0	1.59	0.00
1 158B	26.4	1.14	1184.5	518.54	55.348	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 159B	0.0	0.00	1184.5	518.54	55.142	2	973	0.01030	0.00	0.00	0	124	0	1.55	0.00
1 160B	29.7	1.24	1214.2	508.50	55.541	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1 161B	0.0	0.00	1214.2	508.50	55.303	2	1044	0.00880	0.00	0.00	0	124	0	1.51	0.00
1 162B	27.9	1.14	1242.1	494.71	55.668	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1 163B	0.0	0.00	1242.1	494.71	55.425	2	1101	0.01000	0.00	0.00	0	124	0	1.47	0.00
1 164B	25.2	1.03	1267.3	481.69	55.754	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1 165B	0.0	0.00	1267.3	481.69	55.516	2	1034	0.00970	0.00	0.00	0	124	0	1.47	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinA.lac Run date: Tue Sep 22 13:24:56 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	2.72	40.0	2.72	0.870	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1	2A	0.0	0.00	40.0	2.72	0.867	2	2398	0.00920	0.00	0.00	0	124	0	2.45	0.00
1	3A	39.8	2.45	79.8	3.77	1.652	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1	4A	0.0	0.00	79.8	3.77	1.645	2	1498	0.00970	0.00	0.00	0	124	0	2.22	0.00
1	5A	38.3	2.23	118.1	5.09	2.359	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	6A	0.0	0.00	118.1	5.09	2.346	2	1253	0.00910	0.00	0.00	0	124	0	2.10	0.00
1	7A	32.4	1.83	150.5	5.98	2.933	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1	8A	0.0	0.00	150.5	5.98	2.918	2	1114	0.01010	0.00	0.00	0	124	0	2.04	0.00
1	9A	27.7	1.53	178.2	6.58	3.408	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	10A	0.0	0.00	178.2	6.58	3.384	2	1242	0.00870	0.00	0.00	0	124	0	1.99	0.00
1	11A	33.9	1.87	212.1	7.09	3.983	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	12A	0.0	0.00	212.1	7.09	3.950	2	1469	0.00990	0.00	0.00	0	124	0	1.99	0.00
1	13A	38.9	2.08	251.0	7.65	4.616	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1	14A	0.0	0.00	251.0	7.65	4.582	2	1177	0.00870	0.00	0.00	0	134	0	1.93	0.00
1	15A	38.3	1.99	289.3	8.42	5.218	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	16A	0.0	0.00	289.3	8.42	5.188	2	994	0.01040	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinBlac.lac Run date: Tue Sep 22 13:38:51 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	1.22	22.1	1.22	0.390	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	2B	0.0	0.00	22.1	1.22	0.389	2	2664	0.00930	0.00	0.00	0	124	0	1.99	0.00
1	3B	39.9	2.07	62.0	2.52	1.051	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.01
1	4B	0.0	0.00	62.0	2.52	1.051	2	1443	0.01240	0.00	0.00	0	124	0	1.87	0.00
1	5B	39.0	2.02	101.0	4.01	1.698	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.01
1	6B	0.0	0.00	101.0	4.01	1.696	2	732	0.01030	0.00	0.00	0	124	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinC.lac Run date: Wed Sep 23 12:37:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	1.79	17.8	1.79	0.572	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1	2C	0.0	0.00	17.8	1.79	0.571	2	1591	0.02010	0.00	0.00	0	124	0	3.62	0.00
1	3C	15.5	1.51	33.3	2.90	1.052	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	4C	0.0	0.00	33.3	2.90	1.052	2	1045	0.01800	0.00	0.00	0	124	0	3.50	0.00
1	5C	29.5	2.78	62.8	5.08	1.939	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1	6C	0.0	0.00	62.8	5.08	1.939	2	1347	0.01730	0.00	0.00	0	124	0	3.39	0.00
1	7C	25.1	2.32	87.9	6.69	2.681	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	8C	0.0	0.00	87.9	6.69	2.677	2	1037	0.01750	0.00	0.00	0	124	0	3.33	0.00
1	9C	20.7	1.88	108.6	7.90	3.278	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1	10C	0.0	0.00	108.6	7.90	3.272	2	733	0.01640	0.00	0.00	0	124	0	3.27	0.00
1	11C	25.8	2.30	134.4	9.41	4.008	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1	12C	0.0	0.00	134.4	9.41	4.001	2	713	0.01620	0.00	0.00	0	124	0	3.21	0.00
1	13C	31.9	2.84	166.3	11.35	4.910	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1	14C	0.0	0.00	166.3	11.35	4.898	2	939	0.01560	0.00	0.00	0	124	0	3.21	0.00
1	15C	34.6	3.03	200.9	13.33	5.865	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1	16C	0.0	0.00	200.9	13.33	5.849	2	903	0.01260	0.00	0.00	0	124	0	3.15	0.00
1	17C	32.8	2.77	233.7	14.97	6.734	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1	18C	0.0	0.00	233.7	14.97	6.710	2	1112	0.01420	0.00	0.00	0	124	0	3.04	0.00
1	19C	23.2	1.88	256.9	15.65	7.311	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	20C	0.0	0.00	256.9	15.65	7.277	2	1160	0.01210	0.00	0.00	0	124	0	2.92	0.00
1	21C	29.7	2.26	286.6	16.01	7.999	0	0	0.00000	0.00	0.00	0	124	30	2.74	0.01
1	22C	0.0	0.00	286.6	16.01	7.940	2	1549	0.01130	0.00	0.00	0	124	0	2.74	0.00
1	23C	35.4	2.41	322.0	16.37	8.710	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1	24C	0.0	0.00	322.0	16.37	8.615	2	1993	0.01060	0.00	0.00	0	124	0	2.45	0.00
1	25C	28.1	1.78	350.1	16.42	9.184	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1	26C	0.0	0.00	350.1	16.42	9.140	2	765	0.00890	0.00	0.00	0	124	0	2.28	0.00
1	27C	35.0	2.04	385.1	16.76	9.792	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	28C	0.0	0.00	385.1	16.76	9.664	2	1922	0.00820	0.00	0.00	0	124	0	2.10	0.00
1	29C	34.0	1.93	419.1	16.80	10.280	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1	30C	0.0	0.00	419.1	16.80	10.185	2	1457	0.01040	0.00	0.00	0	124	0	2.04	0.00
1	31C	29.3	1.62	448.4	16.94	10.703	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	32C	0.0	0.00	448.4	16.94	10.617	2	1251	0.01080	0.00	0.00	0	124	0	1.99	0.00
1	33C	35.6	1.91	484.0	17.14	11.227	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1	34C	0.0	0.00	484.0	17.14	11.071	2	2107	0.01100	0.00	0.00	0	124	0	1.93	0.00
1	35D	16.7	1.41	16.7	1.41	0.451	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	36D	0.0	0.00	16.7	1.41	0.449	2	1299	0.01300	0.00	0.00	0	134	0	3.04	0.00
1	37D	29.0	2.35	45.7	3.33	1.201	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	38D	0.0	0.00	45.7	3.33	1.200	2	1308	0.01380	0.00	0.00	0	124	0	2.92	0.00
1	39D	29.9	2.32	75.6	5.00	1.943	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1	40D	0.0	0.00	75.6	5.00	1.939	2	1530	0.01050	0.00	0.00	0	124	0	2.80	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.56	97.0	5.54	2.439	0	0	0.00000	0.00	0.00	0	124	30	2.63	0.01
1 42D	0.0	0.00	97.0	5.54	2.428	2	1185	0.01070	0.00	0.00	0	124	0	2.63	0.00
1 43D	26.1	1.77	123.1	6.09	2.995	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 44D	0.0	0.00	123.1	6.09	2.973	2	1524	0.01060	0.00	0.00	0	124	0	2.45	0.00
1 45D	30.2	1.96	153.3	6.59	3.601	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 46D	0.0	0.00	153.3	6.59	3.563	2	1697	0.00840	0.00	0.00	0	124	0	2.34	0.00
1 47D	30.2	1.76	183.5	6.73	4.126	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 48D	0.0	0.00	183.5	6.73	4.096	2	1239	0.00990	0.00	0.00	0	124	0	2.10	0.00
1 49D	39.0	2.21	222.5	7.66	4.802	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 50D	0.0	0.00	222.5	7.66	4.756	2	1500	0.00870	0.00	0.00	0	124	0	2.04	0.00
1 51D	31.8	1.76	254.3	8.16	5.317	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 52D	0.0	0.00	254.3	8.16	5.278	2	1258	0.01140	0.00	0.00	0	124	0	1.99	0.00
1 53D	23.0	1.27	277.3	8.43	5.685	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 54D	0.0	0.00	277.3	8.43	5.637	2	1118	0.00760	0.00	0.00	0	124	0	1.99	0.00
1 55D	14.6	0.78	291.9	8.47	5.887	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1 56D	0.0	0.00	291.9	8.47	5.833	2	1256	0.00990	0.00	0.00	0	124	0	1.93	0.00

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* CONFLUENCE Q'S *
* 1 57C TC 1272 QC 16.96 QCD 24.65 QD 7.68 1 57D TD 1212 QD 8.42
QD8739952624242025600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000.00 QhC 13.83 Q□ 1.#R
* 1 57CD TCD 1270 QCD 24.66 QC 16.95 QD 7.71
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	8.42	775.9	24.66	16.901	2	5	0.00100	0.00	0.00	0	124	0	1.93	0.00
1 58E	12.6	0.68	12.6	0.68	0.216	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1 59E	0.0	0.00	12.6	0.68	0.117	2	1440	0.01150	0.00	0.00	0	124	0	1.93	0.00
1 60E	28.7	1.49	41.3	1.85	0.594	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.01
1 61E	0.0	0.00	41.3	1.85	0.592	2	3334	0.01150	0.00	0.00	0	124	0	1.87	0.00
1 62F	16.5	1.63	16.5	1.63	0.521	0	0	0.00000	0.00	0.00	0	124	30	3.56	0.01
1 63F	0.0	0.00	16.5	1.63	0.520	2	1673	0.02100	0.00	0.00	0	124	0	3.56	0.00
1 64F	24.0	2.33	40.5	3.50	1.266	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 65F	0.0	0.00	40.5	3.50	1.265	2	955	0.02000	0.00	0.00	0	124	0	3.50	0.00
1 66F	33.9	3.18	74.4	6.20	2.283	0	0	0.00000	0.00	0.00	0	124	30	3.38	0.01
1 67F	0.0	0.00	74.4	6.20	2.282	2	1251	0.01830	0.00	0.00	0	124	0	3.38	0.00
1 68F	29.6	2.74	104.0	8.27	3.157	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1 69F	0.0	0.00	104.0	8.27	3.153	2	1122	0.01740	0.00	0.00	0	124	0	3.33	0.00
1 70F	25.9	2.35	129.9	9.80	3.905	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1 71F	0.0	0.00	129.9	9.80	3.897	2	874	0.01460	0.00	0.00	0	124	0	3.27	0.00
1 72F	26.7	2.38	156.6	11.18	4.658	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 73F	0.0	0.00	156.6	11.18	4.647	2	907	0.01500	0.00	0.00	0	124	0	3.21	0.00
1 74F	29.9	2.61	186.5	12.55	5.483	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1 75F	0.0	0.00	186.5	12.55	5.468	2	876	0.01400	0.00	0.00	0	124	0	3.15	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 76F	39.5	3.33	226.0	14.39	6.534	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1 77F	0.0	0.00	226.0	14.39	6.515	2	987	0.01600	0.00	0.00	0	124	0	3.04	0.00
1 78F	38.8	3.14	264.8	16.15	7.521	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 79F	0.0	0.00	264.8	16.15	7.498	2	900	0.01300	0.00	0.00	0	124	0	2.92	0.00
1 80F	39.6	3.08	304.4	17.82	8.482	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 81F	0.0	0.00	304.4	17.82	8.459	2	831	0.01430	0.00	0.00	0	124	0	2.80	0.00
1 82F	39.9	2.98	344.3	19.43	9.412	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 83F	0.0	0.00	344.3	19.43	9.383	2	829	0.01210	0.00	0.00	0	124	0	2.69	0.00
1 84F	39.8	2.84	384.1	20.79	10.291	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 85F	0.0	0.00	384.1	20.79	10.256	2	853	0.01170	0.00	0.00	0	124	0	2.57	0.00
1 86F	39.1	2.79	423.2	21.90	11.148	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 87F	0.0	0.00	423.2	21.90	11.093	2	1094	0.00990	0.00	0.00	0	124	0	2.57	0.00
1 88F	22.9	1.56	446.1	21.99	11.591	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 89F	0.0	0.00	446.1	21.99	11.536	2	845	0.00780	0.00	0.00	0	124	0	2.45	0.00
1 90F	36.2	2.29	482.3	22.47	12.269	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 91F	0.0	0.00	482.3	22.47	12.150	2	1675	0.00880	0.00	0.00	0	124	0	2.28	0.00
1 92F	23.7	1.38	506.0	22.44	12.592	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 93F	0.0	0.00	506.0	22.44	12.493	2	1298	0.00950	0.00	0.00	0	124	0	2.10	0.00
1 94F	17.9	1.01	523.9	22.48	12.818	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 95F	0.0	0.00	523.9	22.48	12.728	2	1020	0.00840	0.00	0.00	0	124	0	2.04	0.00
1 96F	22.5	1.24	546.4	22.59	13.125	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 97F	0.0	0.00	546.4	22.59	12.979	2	1387	0.00640	0.00	0.00	0	124	0	1.99	0.00
1 98F	21.4	1.18	567.8	22.55	13.357	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 99F	0.0	0.00	567.8	22.55	13.247	2	1222	0.00990	0.00	0.00	0	124	0	1.99	0.00
1 100F	16.7	0.89	584.5	22.58	13.533	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1 101F	0.0	0.00	584.5	22.58	13.422	2	1247	0.01150	0.00	0.00	0	124	0	1.93	0.00
1 102F	23.0	1.26	607.5	22.67	13.824	0	0	0.00000	0.00	0.00	0	124	30	1.97	0.01
1 103F	0.0	0.00	607.5	22.67	13.501	2	3287	0.01110	0.00	0.00	0	124	0	1.97	0.00
1 104G	18.2	0.98	18.2	0.98	0.312	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1 105G	0.0	0.00	18.2	0.98	0.257	2	1898	0.01040	0.00	0.00	0	134	0	1.93	0.00
1 106G	39.9	2.07	58.1	2.49	0.920	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 107G	0.0	0.00	58.1	2.49	0.917	2	2469	0.00900	0.00	0.00	0	134	0	1.87	0.00
1 109C	21.4	1.11	797.3	24.81	17.256	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.01
1 108CE	41.3	1.47	838.6	25.46	17.849	0	0	0.00000	0.00	0.00	0	124	0	1.87	0.00
1 109CF	607.5	22.11	1446.1	47.31	31.349	0	0	0.00000	0.00	0.00	0	124	0	1.87	0.00

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*****************************************************************************************************************************
*                                                           CONFLUENCE Q'S                                                  *
* 1  110C  TC 1276 QC    47.31 QCG    48.07 QG     0.76       1  110G  TG 1196 QG     2.12 QG-
37668592094998777000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000.00 QñC    36.89 Q□     1.#R
*                                         1  110CG TCG 1275 QCG    48.07 QC    47.30 QG     0.77
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	2.12	1504.2	48.07	31.791	2	2279	0.00940	0.00	0.00	0	124	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinH.lac Run date: Tue Sep 22 14:10:10 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.02	19.0	1.02	0.326	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1	2H	0.0	0.00	19.0	1.02	0.281	2	1718	0.00900	0.00	0.00	0	134	0	1.93	0.00
1	3H	39.5	2.05	58.5	2.50	0.937	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	4H	0.0	0.00	58.5	2.50	0.936	2	1850	0.01100	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinI.lac Run date: Thu Sep 24 18:53:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.02	10.8	1.02	0.325	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1	2I	0.0	0.00	10.8	1.02	0.280	2	1416	0.01690	0.00	0.00	0	124	0	3.39	0.00
1	3I	18.1	1.67	28.9	2.37	0.816	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	4I	0.0	0.00	28.9	2.37	0.814	2	929	0.01630	0.00	0.00	0	124	0	3.33	0.00
1	5I	12.8	1.18	41.7	3.30	1.193	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	6I	0.0	0.00	41.7	3.30	1.192	2	459	0.01690	0.00	0.00	0	124	0	3.33	0.00
1	7I	16.5	1.50	58.2	4.55	1.671	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	8I	0.0	0.00	58.2	4.55	1.671	2	616	0.01360	0.00	0.00	0	134	0	3.27	0.00
1	9I	25.9	2.35	84.1	6.47	2.423	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	10I	0.0	0.00	84.1	6.47	2.423	2	879	0.01490	0.00	0.00	0	134	0	3.27	0.00
1	11I	26.8	2.39	110.9	8.25	3.186	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1	12I	0.0	0.00	110.9	8.25	3.184	2	968	0.01270	0.00	0.00	0	134	0	3.21	0.00
1	13I	31.1	2.68	142.0	9.97	4.040	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1	14I	0.0	0.00	142.0	9.97	4.028	2	1180	0.01260	0.00	0.00	0	134	0	3.10	0.00
1	15I	37.7	3.18	179.7	11.59	5.046	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	16I	0.0	0.00	179.7	11.59	5.022	2	1443	0.01290	0.00	0.00	0	134	0	3.04	0.00
1	17I	27.6	2.19	207.3	12.06	5.723	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1	18I	0.0	0.00	207.3	12.06	5.702	2	900	0.01190	0.00	0.00	0	134	0	2.86	0.00
1	19I	25.5	1.98	232.8	12.65	6.336	0	0	0.00000	0.00	0.00	0	134	30	2.80	0.01
1	20I	0.0	0.00	232.8	12.65	6.314	2	838	0.01250	0.00	0.00	0	134	0	2.80	0.00
1	21I	37.2	2.78	270.0	13.82	7.203	0	0	0.00000	0.00	0.00	0	134	30	2.69	0.01
1	22I	0.0	0.00	270.0	13.82	7.163	2	1165	0.01030	0.00	0.00	0	134	0	2.69	0.00
1	23I	34.3	2.45	304.3	14.53	7.946	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1	24I	0.0	0.00	304.3	14.53	7.906	2	1034	0.01070	0.00	0.00	0	134	0	2.57	0.00
1	25I	38.0	2.58	342.3	15.41	8.733	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1	26I	0.0	0.00	342.3	15.41	8.686	2	1049	0.01010	0.00	0.00	0	134	0	2.45	0.00
1	27I	39.5	2.43	381.8	16.08	9.464	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.01
1	28I	0.0	0.00	381.8	16.08	9.349	2	2077	0.00930	0.00	0.00	0	134	0	2.22	0.00
1	29I	29.4	1.66	411.2	16.01	9.882	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.01
1	30I	0.0	0.00	411.2	16.01	9.777	2	1661	0.00960	0.00	0.00	0	134	0	2.04	0.00
1	31I	39.6	2.19	450.8	16.31	10.477	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1	32I	0.0	0.00	450.8	16.31	10.388	2	1306	0.00980	0.00	0.00	0	134	0	1.99	0.00
1	33I	39.3	2.17	490.1	16.63	11.082	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1	34I	0.0	0.00	490.1	16.63	10.967	2	1279	0.00660	0.00	0.00	0	134	0	1.99	0.00
1	35I	26.7	1.43	516.8	16.78	11.425	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1	36I	0.0	0.00	516.8	16.78	11.361	2	878	0.01140	0.00	0.00	0	134	0	1.93	0.00
1	37I	37.9	1.97	554.7	17.07	11.990	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	38I	0.0	0.00	554.7	17.07	11.816	2	1809	0.00760	0.00	0.00	0	134	0	1.87	0.00
1	39J	27.8	2.35	27.8	2.35	0.750	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	40J	0.0	0.00	27.8	2.35	0.749	2	1645	0.01190	0.00	0.00	0	134	0	3.04	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.52	46.6	3.24	1.237	0	0	0.00000	0.00	0.00	0	134	30	2.92	0.01
1 42J	0.0	0.00	46.6	3.24	1.235	2	760	0.01290	0.00	0.00	0	134	0	2.92	0.00
1 43J	32.3	2.56	78.9	5.17	2.055	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1 44J	0.0	0.00	78.9	5.17	2.054	2	1022	0.01280	0.00	0.00	0	134	0	2.86	0.00
1 45J	32.3	2.46	111.2	6.98	2.840	0	0	0.00000	0.00	0.00	0	134	30	2.74	0.01
1 46J	0.0	0.00	111.2	6.98	2.832	2	1126	0.01150	0.00	0.00	0	134	0	2.74	0.00
1 47J	27.3	1.95	138.5	8.08	3.455	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 48J	0.0	0.00	138.5	8.08	3.441	2	1116	0.01060	0.00	0.00	0	134	0	2.57	0.00
1 49J	22.5	1.53	161.0	8.48	3.930	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1 50J	0.0	0.00	161.0	8.48	3.912	2	1019	0.01040	0.00	0.00	0	134	0	2.45	0.00
1 51J	18.6	1.15	179.6	8.61	4.279	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.01
1 52J	0.0	0.00	179.6	8.61	4.253	2	1085	0.00980	0.00	0.00	0	134	0	2.22	0.00
1 53J	35.3	2.18	214.9	9.05	4.948	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.01
1 54J	0.0	0.00	214.9	9.05	4.911	2	1400	0.01030	0.00	0.00	0	134	0	2.22	0.00
1 55J	40.0	2.33	254.9	9.45	5.656	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.01
1 56J	0.0	0.00	254.9	9.45	5.601	2	1510	0.00790	0.00	0.00	0	134	0	2.10	0.00
1 57J	40.0	2.21	294.9	9.84	6.308	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 58J	0.0	0.00	294.9	9.84	6.251	2	1410	0.00900	0.00	0.00	0	134	0	1.99	0.00
1 59J	37.3	2.00	332.2	10.20	6.890	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1 60J	0.0	0.00	332.2	10.20	6.825	2	1434	0.00910	0.00	0.00	0	134	0	1.93	0.00
1 61J	28.5	1.48	360.7	10.38	7.298	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 62J	0.0	0.00	360.7	10.38	7.174	2	2082	0.00730	0.00	0.00	0	134	0	1.87	0.00

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* CONFLUENCE Q'S *
* 1 63I TI 1268 QI 16.95 QIJ 27.22 QJ 10.27 1 63J TJ 1236 QJ 10.32 QJ-
1492154354231380300000000000000000000000000000000000000.00 Q□I 15.57 Q□ 1.#R
* 1 63IJ TIJ 1266 QIJ 27.23 QI 16.95 QJ 10.29
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	10.32	915.4	27.23	18.989	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinK.lac Run date: Wed Sep 23 16:00:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1K	206.3	516.99	206.3	516.99	24.287	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1 2K	0.0	0.00	206.3	516.99	24.277	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 3K	21.5	2.23	227.8	510.90	24.991	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1 4K	0.0	0.00	227.8	510.90	24.987	2	571	0.03050	0.00	0.00	0	124	0	3.74	0.00
1 5K	39.6	4.03	267.4	511.20	26.277	0	0	0.00000	0.00	0.00	0	124	30	3.67	0.01
1 6B	39.7	2.06	39.7	2.06	0.659	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 6K	0.0	0.00	267.4	511.20	26.296	2	1014	0.02040	0.00	0.00	0	134	0	1.87	0.00
1 7K	39.6	3.98	307.0	500.28	27.569	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1 8K	0.0	0.00	307.0	500.28	27.575	2	1054	0.01830	0.00	0.00	0	124	0	3.62	0.00
1 9K	30.7	2.98	337.7	488.65	28.529	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 10K	0.0	0.00	337.7	488.65	28.525	2	957	0.01610	0.00	0.00	0	134	0	3.50	0.00
1 11K	33.2	3.18	370.9	477.69	29.542	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1 12K	0.0	0.00	370.9	477.69	29.489	2	1511	0.01470	0.00	0.00	0	134	0	3.45	0.00
1 13L	28.8	3.08	28.8	3.08	0.984	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 14L	0.0	0.00	28.8	3.08	0.984	2	659	0.02120	0.00	0.00	0	134	0	3.85	0.00
1 15L	24.8	2.62	53.6	5.56	1.820	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 16L	0.0	0.00	53.6	5.56	1.820	2	724	0.02090	0.00	0.00	0	134	0	3.80	0.00
1 17B	39.1	2.16	78.8	4.22	1.350	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 18L	0.0	0.00	53.6	5.49	1.819	2	1152	0.01700	0.00	0.00	0	134	0	1.99	0.00
1 19L	21.3	2.14	74.9	6.87	2.504	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 20L	0.0	0.00	74.9	6.87	2.499	2	1374	0.01640	0.00	0.00	0	134	0	3.62	0.00
1 21L	17.9	1.74	92.8	7.38	3.055	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 22L	0.0	0.00	92.8	7.38	3.039	2	1523	0.01560	0.00	0.00	0	134	0	3.50	0.00

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*                                                          CONFLUENCE Q'S                                                   *
* 1   23K  TK 1168 QK   445.31 QKL   450.37 QL     5.06       1   23L  TL 1194 QL     7.08 QL    -0.00 QÄK    53.54 Q      1.#R
*                                        1   23KL TKL 1168 QKL   450.37 QK   445.31 QL     5.06
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 23KL	92.8	7.08	463.7	450.37	32.487	2	709	0.01300	0.00	0.00	0	134	0	3.50	0.00
1 24K	30.9	2.80	494.6	445.79	33.384	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 25K	0.0	0.00	494.6	445.79	33.334	2	778	0.01320	0.00	0.00	0	134	0	3.27	0.00
1 26K	32.3	2.93	526.9	439.28	34.271	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 27K	0.0	0.00	526.9	439.28	34.183	2	881	0.01070	0.00	0.00	0	134	0	3.27	0.00
1 28K	28.9	2.58	555.8	428.12	35.006	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1 29K	0.0	0.00	555.8	428.12	34.898	2	934	0.01050	0.00	0.00	0	134	0	3.21	0.00
1 30K	21.2	1.85	577.0	413.96	35.491	0	0	0.00000	0.00	0.00	0	134	30	3.15	0.01
1 31K	0.0	0.00	577.0	413.96	35.409	2	853	0.01320	0.00	0.00	0	134	0	3.15	0.00
1 32M	734.5	3101.09	734.5	3101.09	401.401	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 33M	0.0	0.00	734.5	3101.09	400.841	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	3.39	766.2	3001.68	401.924	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 35M	0.0	0.00	766.2	3001.68	401.849	2	1319	0.02170	0.00	0.00	0	134	0	3.85	0.00
1 36M	29.5	3.06	795.7	2910.52	402.828	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 37M	0.0	0.00	795.7	2910.52	402.780	2	1114	0.01940	0.00	0.00	0	134	0	3.74	0.00
1 38M	27.9	3.39	823.6	2814.36	403.679	0	0	0.00000	0.00	0.00	0	134	20	3.62	0.01
1 39M	0.0	0.00	823.6	2814.36	403.629	2	1014	0.01810	0.00	0.00	0	134	0	3.62	0.00
1 40M	39.2	3.87	862.8	2754.18	404.868	0	0	0.00000	0.00	0.00	0	134	30	3.56	0.01
1 41M	0.0	0.00	862.8	2754.18	404.868	2	1409	0.01550	0.00	0.00	0	134	0	3.56	0.00
1 42N	297.6	619.95	297.6	619.95	34.887	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	297.6	619.95	34.901	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	4.22	337.1	608.77	36.251	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 45N	0.0	0.00	337.1	608.77	36.249	2	684	0.05170	0.00	0.00	0	134	0	3.85	0.00
1 46N	38.9	4.10	376.0	610.06	37.562	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 47N	0.0	0.00	376.0	610.06	37.554	2	702	0.02820	0.00	0.00	0	134	0	3.80	0.00
1 48N	37.9	3.93	413.9	611.51	38.812	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 49N	0.0	0.00	413.9	611.51	38.807	2	938	0.02310	0.00	0.00	0	134	0	3.74	0.00
1 50N	32.3	3.25	446.2	608.17	39.845	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 51N	0.0	0.00	446.2	608.17	39.759	2	1933	0.00920	0.00	0.00	0	134	0	3.62	0.00

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* CONFLUENCE Q'S *

* 1 52M TM 1161 QM 2641.94 QMN 2921.02 QN 279.09 1 52N TN 1168 QN 552.36 QN 0.00 QãM 1071.12 Q 1.#R

* 1 52MN TMN 1161 QMN 2921.02 QM 2641.94 QN 279.09

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	446.2	552.36	1309.0	2921.02	444.528	2	885	0.02080	0.00	0.00	0	134	0	3.62	0.00
1 53M	18.1	1.70	1327.1	2878.23	445.071	0	0	0.00000	0.00	0.00	0	134	30	3.38	0.01
1 54M	0.0	0.00	1327.1	2878.23	444.827	2	1259	0.00920	0.00	0.00	0	134	0	3.38	0.00
1 55O	35.7	3.59	35.7	3.59	1.147	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 56O	0.0	0.00	35.7	3.59	1.145	2	2369	0.01220	0.00	0.00	0	134	0	3.62	0.00
1 57B	40.0	4.02	118.8	8.24	2.635	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 58O	0.0	0.00	35.7	3.01	1.139	2	1288	0.01250	0.00	0.00	0	134	0	3.62	0.00

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* CONFLUENCE Q'S *

* 1 59M TM 1164 QM 2768.00 QMO 2769.38 QO 1.38 1 59O TO 1201 QO 2.86

QO6803898063794089300000000000000000000000000000000000000000000000000000.00 Q□M 398.21 Q 1.#R

* 1 59MO TMO 1164 QMO 2769.38 QM 2768.00 QO 1.38

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	2.86	1362.8	2769.38	445.633	2	934	0.01150	0.00	0.00	0	134	0	3.62	0.00
1 60M	21.5	1.95	1384.3	2733.53	446.257	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 61M	0.0	0.00	1384.3	2733.53	445.816	2	1075	0.01320	0.00	0.00	0	134	0	3.27	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	1384.3	2673.62	445.813	2	5	0.01000	0.00	0.00	0	134	0	3.27	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1   63K  TK 1181 QK   405.64 QKM  1549.80 QM  1144.16       1   63M  TM 1168 QM  2673.56 QM     0.00 Q6K    82.04 Q      1.#R
*                                        1   63KM TKM 1168 QKM  2755.61 QK    82.04 QM  2673.56
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1384.3	2673.56	1961.3	2755.61	481.219	2	5	0.01000	0.00	0.00	0	134	0	3.27	0.00
1 64K	31.4	2.80	1992.7	2758.15	482.114	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1 65K	0.0	0.00	1992.7	2758.15	481.662	2	784	0.01050	0.00	0.00	0	134	0	3.21	0.00
1 66K	37.2	3.25	2029.9	2731.93	482.702	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1 67K	0.0	0.00	2029.9	2731.93	482.216	2	770	0.01080	0.00	0.00	0	124	0	3.15	0.00
1 68K	34.7	2.93	2064.6	2695.14	483.152	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1 69K	0.0	0.00	2064.6	2695.14	482.431	2	992	0.01000	0.00	0.00	0	124	0	3.04	0.00
1 70K	19.1	1.55	2083.7	2658.73	482.926	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 71K	0.0	0.00	2083.7	2658.73	482.056	2	975	0.00800	0.00	0.00	0	124	0	2.92	0.00
1 72K	10.9	0.87	2094.6	2614.28	482.332	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 73K	0.0	0.00	2094.6	2614.28	481.551	2	715	0.00700	0.00	0.00	0	124	0	2.86	0.00
1 74K	24.2	1.88	2118.8	2579.99	482.152	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 75K	0.0	0.00	2118.8	2579.99	481.155	2	1168	0.01280	0.00	0.00	0	124	0	2.80	0.00
1 76P	48.0	153.64	48.0	153.64	5.673	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	48.0	153.64	5.667	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	2.83	74.5	152.47	6.573	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 79P	0.0	0.00	74.5	152.47	6.573	2	1220	0.00870	0.00	0.00	0	124	0	3.85	0.00
1 80P	39.7	4.12	114.2	122.95	7.892	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 81P	0.0	0.00	114.2	122.95	7.875	2	2419	0.01850	0.00	0.00	0	134	0	3.74	0.00
1 82Q	40.0	4.27	40.0	4.27	1.367	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 83Q	0.0	0.00	40.0	4.27	1.367	2	1582	0.02720	0.00	0.00	0	134	0	3.85	0.00
1 84Q	40.0	4.15	80.0	7.83	2.695	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 85Q	0.0	0.00	80.0	7.83	2.692	2	1847	0.02110	0.00	0.00	0	134	0	3.74	0.00

```
*                                                    CONFLUENCE Q'S                                                    *
* 1   86P  TP 1168 QP    92.70 QPQ    98.99 QQ     6.28       1   86Q  TQ 1181 QQ     7.47 QQ    -0.00 QíP    43.68 Q      1.#R
*                                        1   86PQ TPQ 1169 QPQ    99.06 QP    92.60 QQ     6.45
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	7.47	194.2	99.06	10.548	2	949	0.02000	0.00	0.00	0	134	0	3.74	0.00
1 87P	40.0	4.15	234.2	99.07	11.876	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 88P	0.0	0.00	234.2	99.07	11.848	2	856	0.01150	0.00	0.00	0	134	0	3.74	0.00
1 89P	40.0	3.83	274.2	97.55	13.073	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1 90P	0.0	0.00	274.2	97.55	13.030	2	1066	0.01300	0.00	0.00	0	134	0	3.45	0.00
1 91P	40.0	3.76	314.2	94.76	14.234	0	0	0.00000	0.00	0.00	0	134	30	3.39	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 92P	0.0	0.00	314.2	94.76	14.163	2	1323	0.01000	0.00	0.00	0	134	0	3.39	0.00
1 93P	38.5	3.49	352.7	88.15	15.281	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 94P	0.0	0.00	352.7	88.15	15.206	2	1231	0.00980	0.00	0.00	0	134	0	3.27	0.00
1 95P	32.9	2.93	385.6	84.07	16.143	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 96P	0.0	0.00	385.6	84.07	15.946	2	853	0.00100	0.00	0.00	0	124	0	3.21	0.00
1 97P	32.3	2.78	417.9	72.21	16.835	0	0	0.00000	0.00	0.00	0	124	30	3.10	0.01
1 98P	0.0	0.00	417.9	72.21	16.754	2	903	0.00830	0.00	0.00	0	124	0	3.10	0.00
1 99P	36.0	2.98	453.9	71.49	17.706	0	0	0.00000	0.00	0.00	0	124	30	2.98	0.01
1 100P	0.0	0.00	453.9	71.49	17.590	2	1173	0.00770	0.00	0.00	0	124	0	2.98	0.00
1 101P	22.9	1.86	476.8	69.59	18.184	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 102P	0.0	0.00	476.8	69.59	18.116	2	832	0.01210	0.00	0.00	0	124	0	2.92	0.00
1 103P	12.6	0.98	489.4	69.17	18.429	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 104P	0.0	0.00	489.4	69.17	18.341	2	949	0.01050	0.00	0.00	0	124	0	2.80	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  105K  TK 1178 QK  2539.97 QKP  2559.84 QP    19.87       1  105P  TP 1234 QP    68.20
QP1784004567430033200000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QZK   392.76 Q      1.#R
*                                        1  105KP TKP 1178 QKP  2559.84 QK  2539.97 QP    19.87
**********************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	489.4	68.20	2608.2	2559.84	499.491	2	5	0.01000	0.00	0.00	0	124	0	2.80	0.00
1 106K	32.1	2.44	2640.3	2561.65	500.272	0	0	0.00000	0.00	0.00	0	124	30	2.74	0.01
1 107K	0.0	0.00	2640.3	2561.65	499.337	2	913	0.01100	0.00	0.00	0	124	0	2.74	0.00
1 108K	37.7	2.82	2678.0	2543.17	500.237	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 109K	0.0	0.00	2678.0	2543.17	499.081	2	1081	0.01000	0.00	0.00	0	124	0	2.69	0.00
1 110K	39.4	2.81	2717.4	2509.72	499.980	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 111K	0.0	0.00	2717.4	2509.72	498.914	2	1044	0.01240	0.00	0.00	0	124	0	2.57	0.00
1 112K	39.8	2.71	2757.2	2483.43	499.779	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 113K	0.0	0.00	2757.2	2483.43	498.593	2	1121	0.01110	0.00	0.00	0	124	0	2.45	0.00
1 114K	40.0	2.60	2797.2	2453.61	499.424	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 115K	0.0	0.00	2797.2	2453.61	498.290	2	960	0.00950	0.00	0.00	0	124	0	2.34	0.00
1 116K	39.8	2.45	2837.0	2426.70	499.075	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1 117K	0.0	0.00	2837.0	2426.70	497.994	2	919	0.00990	0.00	0.00	0	124	0	2.22	0.00
1 118K	39.8	2.32	2876.8	2402.47	498.736	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.01
1 119K	0.0	0.00	2876.8	2402.47	498.045	2	835	0.01980	0.00	0.00	0	134	0	2.10	0.00
1 120K	22.4	1.27	2899.2	2390.29	498.450	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.01
1 121K	0.0	0.00	2899.2	2390.29	497.124	2	1042	0.00770	0.00	0.00	0	134	0	2.04	0.00
1 122R	21.6	1.89	21.6	1.89	0.604	0	0	0.00000	0.00	0.00	0	134	30	3.15	0.01
1 123R	0.0	0.00	21.6	1.89	0.603	2	1940	0.01230	0.00	0.00	0	134	0	3.15	0.00
1 124R	32.5	2.80	54.1	3.84	1.497	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1 125R	0.0	0.00	54.1	3.84	1.496	2	1189	0.01320	0.00	0.00	0	134	0	3.10	0.00
1 126R	23.9	2.02	78.0	5.30	2.141	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1 127R	0.0	0.00	78.0	5.30	2.140	2	803	0.01280	0.00	0.00	0	134	0	3.04	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 128R	28.8	2.48	106.8	7.18	2.932	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1 129R	0.0	0.00	106.8	7.18	2.925	2	966	0.01040	0.00	0.00	0	134	0	3.10	0.00
1 130R	29.3	2.37	136.1	8.65	3.684	0	0	0.00000	0.00	0.00	0	134	30	2.92	0.01
1 131R	0.0	0.00	136.1	8.65	3.674	2	795	0.00960	0.00	0.00	0	134	0	2.92	0.00
1 132R	27.5	2.18	163.6	9.88	4.373	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1 133R	0.0	0.00	163.6	9.88	4.361	2	759	0.01050	0.00	0.00	0	134	0	2.86	0.00
1 134R	27.3	2.12	190.9	11.00	5.039	0	0	0.00000	0.00	0.00	0	134	30	2.80	0.01
1 135R	0.0	0.00	190.9	11.00	5.024	2	740	0.00980	0.00	0.00	0	134	0	2.80	0.00
1 136R	29.4	2.24	220.3	12.10	5.739	0	0	0.00000	0.00	0.00	0	134	30	2.74	0.01
1 137R	0.0	0.00	220.3	12.10	5.719	2	849	0.01000	0.00	0.00	0	134	0	2.74	0.00
1 138R	36.9	2.76	257.2	13.40	6.600	0	0	0.00000	0.00	0.00	0	134	30	2.69	0.01
1 139R	0.0	0.00	257.2	13.40	6.572	2	960	0.01020	0.00	0.00	0	134	0	2.69	0.00
1 140R	27.6	1.97	284.8	14.05	7.202	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 141R	0.0	0.00	284.8	14.05	7.181	2	705	0.01250	0.00	0.00	0	134	0	2.57	0.00
1 142R	36.0	2.45	320.8	15.18	7.964	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1 143R	0.0	0.00	320.8	15.18	7.928	2	966	0.01040	0.00	0.00	0	134	0	2.45	0.00
1 144R	39.6	2.51	360.4	16.05	8.730	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 145R	0.0	0.00	360.4	16.05	8.681	2	1078	0.00940	0.00	0.00	0	134	0	2.28	0.00
1 146R	27.4	1.60	387.8	16.22	9.192	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.01
1 147R	0.0	0.00	387.8	16.22	9.165	2	693	0.01440	0.00	0.00	0	134	0	2.10	0.00
1 148R	27.6	1.61	415.4	16.64	9.679	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.01
1 149R	0.0	0.00	415.4	16.64	9.611	2	1266	0.00970	0.00	0.00	0	134	0	2.10	0.00
1 150R	20.7	1.17	436.1	16.82	9.986	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.01
1 151R	0.0	0.00	436.1	16.82	9.902	2	1379	0.00960	0.00	0.00	0	134	0	2.04	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  152K  TK 1192 QK  2363.31 QKR  2378.64 QR    15.33       1  152R  TR 1214 QR    16.72 QR     0.00 QBK  1220.09 Q      1.#R
*                                   1  152KR TKR 1192 QKR  2378.64 QK  2363.31 QR    15.33
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	16.72	3335.3	2378.64	505.484	2	1212	0.00830	0.00	0.00	0	134	0	2.04	0.00
1 153K	38.8	2.14	3374.1	2336.48	506.169	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 154K	0.0	0.00	3374.1	2336.48	503.678	2	2066	0.00970	0.00	0.00	0	134	0	1.99	0.00
1 155K	27.3	1.46	3401.4	2253.98	504.146	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1 156K	0.0	0.00	3401.4	2253.98	501.907	2	1710	0.00880	0.00	0.00	0	134	0	1.93	0.00
1 157K	22.1	1.15	3423.5	2200.27	502.274	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 158K	0.0	0.00	3423.5	2200.27	500.012	2	1697	0.00870	0.00	0.00	0	134	0	1.87	0.00
1 159S	39.3	2.11	39.3	2.11	0.673	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1 160S	0.0	0.00	39.3	2.11	0.672	2	2302	0.01100	0.00	0.00	0	134	0	1.93	0.00
1 161S	36.7	1.91	76.0	3.00	1.281	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 162S	0.0	0.00	76.0	3.00	1.276	2	2012	0.01210	0.00	0.00	0	134	0	1.87	0.00
1 163T	16.1	0.89	16.1	0.89	0.284	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 164T	0.0	0.00	16.1	0.89	0.211	2	1839	0.00880	0.00	0.00	0	134	0	1.99	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 165T	28.5	1.57	44.6	1.95	0.715	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 166T	0.0	0.00	44.6	1.95	0.713	2	887	0.01190	0.00	0.00	0	134	0	1.99	0.00
1 167T	38.0	1.97	82.6	3.65	1.344	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 168T	0.0	0.00	82.6	3.65	1.343	2	1078	0.00880	0.00	0.00	0	134	0	1.87	0.00
1 169T	39.8	2.07	122.4	5.04	2.004	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 170T	0.0	0.00	122.4	5.04	2.002	2	1337	0.01200	0.00	0.00	0	134	0	1.87	0.00
1 171T	29.2	1.52	151.6	5.68	2.487	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 172T	0.0	0.00	151.6	5.68	2.469	2	1813	0.00980	0.00	0.00	0	134	0	1.87	0.00
1 173KS	76.0	2.77	3499.5	2159.02	501.287	0	0	0.00000	0.00	0.00	0	134	0	1.87	0.00

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*****************************************************************************************************************
*                                             CONFLUENCE Q'S                                                    *
* 1  174K  TK 1206 QK  2159.02 QKT  2164.14 QT     5.12       1  174T  TT 1198 QT     5.27 QT-
41237013581667974000000000000000000000000000000000000000000000000000000000000000.00 QéK  1090.21 Q      1.#R
*                                        1  174KT TKT 1206 QKT  2164.14 QK  2159.02 QT     5.12
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	5.27	3651.1	2164.14	502.334	2	1115	0.00920	0.00	0.00	0	134	0	1.87	0.00
1 175K	28.5	1.48	3679.6	2148.54	502.808	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 176K	0.0	0.00	3679.6	2148.54	500.247	2	1834	0.00810	0.00	0.00	0	134	0	1.87	0.00
1 177U	29.4	1.53	29.4	1.53	0.488	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 178U	29.1	1.51	58.5	3.04	0.971	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 179U	0.0	0.00	58.5	3.04	0.964	2	3079	0.00820	0.00	0.00	0	134	0	1.87	0.00
1 180U	31.8	1.65	90.3	2.87	1.492	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 181U	0.0	0.00	90.3	2.87	1.476	2	2207	0.01120	0.00	0.00	0	134	0	1.87	0.00
1 182U	21.3	1.11	111.6	3.15	1.830	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 183U	0.0	0.00	111.6	3.15	1.794	2	2448	0.00810	0.00	0.00	0	134	0	1.87	0.00

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*****************************************************************************************************************
*                                             CONFLUENCE Q'S                                                    *
* 1  184K  TK 1213 QK  2099.53 QKU  2102.37 QU     2.83       1  184U  TU 1231 QU     2.86
QU4244231098323645400000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000.00 QBK  1409.46 Q      1.#R
*                                        1  184KU TKU 1213 QKU  2102.37 QK  2099.53 QU     2.83
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	2.86	3791.2	2102.37	502.034	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinV.lac Run date: Tue Sep 22 14:51:20 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 50

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	1.24	23.8	1.24	0.395	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	2V	0.0	0.00	23.8	1.24	0.393	2	1412	0.01030	0.00	0.00	0	134	0	1.87	0.00
1	3V	39.4	2.05	63.2	2.79	1.047	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	4V	0.0	0.00	63.2	2.79	1.047	2	1046	0.01150	0.00	0.00	0	134	0	1.87	0.00
1	5V	39.9	2.07	103.1	4.38	1.709	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	6V	0.0	0.00	103.1	4.38	1.709	2	892	0.01000	0.00	0.00	0	134	0	1.87	0.00
1	7V	40.0	2.08	143.1	5.86	2.373	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	8V	0.0	0.00	143.1	5.86	2.369	2	964	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\BasinW.lac Run date: Tue Sep 22 15:16:17 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	2.03	24.1	2.03	0.650	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1	2B	27.6	1.43	27.6	1.43	0.458	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	2W	0.0	0.00	24.1	2.03	0.649	2	1848	0.01050	0.00	0.00	0	134	0	1.87	0.00
1	3W	22.3	1.81	46.4	3.05	1.227	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	4B	15.1	0.83	42.7	2.27	0.725	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1	4W	0.0	0.00	46.4	3.05	1.226	2	1007	0.01070	0.00	0.00	0	134	0	1.99	0.00
1	5W	26.9	2.09	73.3	4.51	1.895	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1	6W	0.0	0.00	73.3	4.51	1.891	2	1111	0.00990	0.00	0.00	0	124	0	2.80	0.00
1	7W	24.7	1.84	98.0	5.65	2.481	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1	8W	0.0	0.00	98.0	5.65	2.468	2	1118	0.00710	0.00	0.00	0	124	0	2.69	0.00
1	9W	35.1	2.50	133.1	6.82	3.269	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	10W	0.0	0.00	133.1	6.82	3.250	2	1301	0.01000	0.00	0.00	0	124	0	2.57	0.00
1	11W	24.8	1.73	157.9	7.39	3.802	0	0	0.00000	0.00	0.00	0	124	30	2.51	0.01
1	12W	0.0	0.00	157.9	7.39	3.786	2	779	0.00750	0.00	0.00	0	124	0	2.51	0.00
1	13W	36.2	2.46	194.1	8.68	4.573	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1	14W	0.0	0.00	194.1	8.68	4.557	2	915	0.01440	0.00	0.00	0	124	0	2.45	0.00
1	15W	33.0	2.14	227.1	9.96	5.242	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1	16W	0.0	0.00	227.1	9.96	5.226	2	796	0.01390	0.00	0.00	0	124	0	2.34	0.00
1	17W	39.5	2.43	266.6	11.53	6.004	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1	18W	0.0	0.00	266.6	11.53	5.981	2	930	0.01200	0.00	0.00	0	124	0	2.22	0.00
1	19W	32.8	1.91	299.4	12.59	6.593	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	20W	0.0	0.00	299.4	12.59	6.568	2	774	0.00940	0.00	0.00	0	124	0	2.10	0.00
1	21W	35.4	2.06	334.8	13.56	7.228	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	22W	0.0	0.00	334.8	13.56	7.184	2	1066	0.00820	0.00	0.00	0	124	0	2.10	0.00
1	23W	19.1	1.08	353.9	13.54	7.530	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.01
1	24W	0.0	0.00	353.9	13.54	7.482	2	860	0.00630	0.00	0.00	0	134	0	2.04	0.00
1	25W	11.4	0.65	365.3	13.56	7.689	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.01
1	26W	0.0	0.00	365.3	13.56	7.649	2	684	0.00730	0.00	0.00	0	134	0	2.04	0.00
1	27W	22.7	1.25	388.0	13.78	8.050	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1	28W	0.0	0.00	388.0	13.78	7.947	2	1949	0.01030	0.00	0.00	0	134	0	1.99	0.00
1	29X	7.3	0.43	7.3	0.43	0.136	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	30X	0.0	0.00	7.3	0.43	0.044	2	1088	0.00760	0.00	0.00	0	124	0	2.10	0.00
1	31X	23.1	2.24	30.4	2.45	0.762	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	32X	0.0	0.00	30.4	2.45	0.761	2	882	0.01350	0.00	0.00	0	124	0	3.50	0.00
1	33X	13.0	1.23	43.4	3.47	1.153	0	0	0.00000	0.00	0.00	0	124	30	3.40	0.01
1	34X	0.0	0.00	43.4	3.47	1.153	2	429	0.01290	0.00	0.00	0	124	0	3.40	0.00
1	35X	18.5	1.02	61.9	4.33	1.479	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	36X	0.0	0.00	61.9	4.33	1.479	2	1115	0.01280	0.00	0.00	0	124	0	1.99	0.00
1	37WX	61.9	4.17	449.9	15.33	9.388	2	642	0.00980	0.00	0.00	0	124	0	1.99	0.00
1	38W	19.2	1.03	469.1	15.51	9.717	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1	39W	0.0	0.00	469.1	15.51	9.620	2	1430	0.00960	0.00	0.00	0	124	0	1.93	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 40Y	6.4	0.37	6.4	0.37	0.119	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 41Y	0.0	0.00	6.4	0.37	0.033	2	970	0.00890	0.00	0.00	0	124	0	2.10	0.00
1 42Y	11.2	0.65	17.6	0.89	0.242	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 43Y	0.0	0.00	17.6	0.89	0.143	2	831	0.01140	0.00	0.00	0	124	0	2.10	0.00
1 44Y	15.6	0.88	33.2	1.59	0.425	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 45Y	0.0	0.00	33.2	1.59	0.351	2	883	0.01070	0.00	0.00	0	124	0	2.04	0.00
1 46Y	9.5	0.52	42.7	1.91	0.519	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 47Y	0.0	0.00	42.7	1.91	0.475	2	390	0.01680	0.00	0.00	0	124	0	1.99	0.00
1 48Y	13.1	0.70	55.8	2.44	0.700	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1 49Y	0.0	0.00	55.8	2.44	0.641	2	658	0.01670	0.00	0.00	0	124	0	1.93	0.00
1 50Y	24.4	1.31	80.2	3.41	1.059	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.01
1 51Y	0.0	0.00	80.2	3.41	1.057	2	1416	0.01050	0.00	0.00	0	124	0	1.93	0.00
1 52WY	80.2	3.24	549.3	17.42	10.545	2	1623	0.00800	0.00	0.00	0	124	0	1.93	0.00
1 53Z	12.8	0.83	12.8	0.83	0.266	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 54Z	0.0	0.00	12.8	0.83	0.183	2	1273	0.01320	0.00	0.00	0	124	0	2.34	0.00
1 55Z	24.9	1.58	37.7	2.11	0.687	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 56Z	0.0	0.00	37.7	2.11	0.686	2	1086	0.01170	0.00	0.00	0	124	0	2.28	0.00
1 57Z	25.8	1.55	63.5	3.26	1.180	0	0	0.00000	0.00	0.00	0	124	30	2.16	0.01
1 58Z	0.0	0.00	63.5	3.26	1.180	2	863	0.01350	0.00	0.00	0	124	0	2.16	0.00
1 59Z	30.1	1.75	93.6	4.56	1.741	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 60Z	0.0	0.00	93.6	4.56	1.741	2	922	0.01230	0.00	0.00	0	124	0	2.10	0.00
1 61Z	28.0	1.59	121.6	5.59	2.248	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 62Z	0.0	0.00	121.6	5.59	2.246	2	907	0.01020	0.00	0.00	0	124	0	2.04	0.00
1 63Z	32.7	1.85	154.3	6.62	2.838	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 64Z	0.0	0.00	154.3	6.62	2.829	2	1048	0.01130	0.00	0.00	0	124	0	2.04	0.00
1 65Z	25.7	1.42	180.0	7.15	3.283	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 66Z	0.0	0.00	180.0	7.15	3.271	2	1003	0.01240	0.00	0.00	0	134	0	1.99	0.00
1 67Z	9.1	0.50	189.1	7.14	3.432	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1 68Z	0.0	0.00	189.1	7.14	3.426	2	399	0.01470	0.00	0.00	0	134	0	1.99	0.00
1 69Z	24.4	1.31	213.5	7.59	3.844	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1 70Z	0.0	0.00	213.5	7.59	3.827	2	1072	0.01280	0.00	0.00	0	134	0	1.93	0.00
1 71Z	27.0	1.40	240.5	7.89	4.275	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1 72Z	0.0	0.00	240.5	7.89	4.243	2	1351	0.00920	0.00	0.00	0	134	0	1.87	0.00
1 73WZ	240.5	7.80	789.8	24.77	14.787	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\Basin100A.lac Run date: Tue Sep 22 15:28:06 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.53	8.2	0.53	0.170	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 102A	0.0	0.00	8.2	0.53	0.071	2	1080	0.01170	0.00	0.00	0	124	0	2.34	0.00
1 103A	17.4	1.07	25.6	1.42	0.414	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1 104A	0.0	0.00	25.6	1.42	0.385	2	846	0.01260	0.00	0.00	0	124	0	2.22	0.00
1 105A	18.4	1.10	44.0	2.31	0.738	0	0	0.00000	0.00	0.00	0	124	30	2.16	0.01
1 106A	0.0	0.00	44.0	2.31	0.720	2	782	0.01420	0.00	0.00	0	124	0	2.16	0.00
1 107A	24.3	1.42	68.3	3.42	1.173	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 108A	0.0	0.00	68.3	3.42	1.171	2	822	0.01180	0.00	0.00	0	124	0	2.10	0.00
1 109A	21.0	1.22	89.3	4.25	1.562	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 110A	0.0	0.00	89.3	4.25	1.562	2	717	0.01020	0.00	0.00	0	124	0	2.10	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q5\Basin100B.lac   Run date: Thu Sep 24 06:29:40 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	2.72	30.0	2.72	0.871	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1 14B	22.1	2.04	52.1	4.76	1.522	0	0	0.00000	0.00	0.00	0	134	30	3.32	0.01
1 20B	38.7	3.64	90.8	8.40	2.687	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1 21B	11.2	1.05	102.0	9.46	3.024	0	0	0.00000	0.00	0.00	0	134	30	3.39	0.01
1 28B	24.5	2.46	126.5	11.92	3.811	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 29B	7.6	0.76	134.1	12.68	4.056	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1 35B	15.5	1.63	149.6	14.32	4.579	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 36B	29.0	3.10	178.6	17.42	5.570	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 100B	67.1	239.25	245.7	256.00	13.511	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	256.00	13.513	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	2.87	271.7	253.33	14.429	0	0	0.00000	0.00	0.00	0	124	30	3.97	0.01
1 103B	0.0	0.00	271.7	253.33	14.432	2	1058	0.04570	0.00	0.00	0	124	0	3.97	0.00
1 104B	24.8	2.65	296.5	244.09	15.280	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 105B	0.0	0.00	296.5	244.09	15.269	2	1470	0.02950	0.00	0.00	0	124	0	3.85	0.00
1 106B	18.1	1.88	314.6	216.56	15.870	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1 107B	0.0	0.00	314.6	216.56	15.861	2	959	0.01820	0.00	0.00	0	124	0	3.74	0.00
1 108C	422.0	879.10	422.0	879.10	49.471	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	422.0	879.10	49.510	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	4.31	461.7	867.75	50.888	0	0	0.00000	0.00	0.00	0	124	30	3.91	0.01
1 111C	0.0	0.00	461.7	867.75	50.912	2	1568	0.03970	0.00	0.00	0	124	0	3.91	0.00
1 112D	37.7	4.09	37.7	4.09	1.309	0	0	0.00000	0.00	0.00	0	124	30	3.91	0.01
1 113D	0.0	0.00	37.7	4.09	1.308	2	2150	0.02780	0.00	0.00	0	124	0	3.91	0.00

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**************************************************************************************************************************
*                                                      CONFLUENCE Q'S                                                    *
* 1  114C  TC 1159 QC   855.59 QCD   857.96 QD     2.38       1  114D  TD 1177 QD     3.74 QD     0.00 QĐC   100.01 Q□     1.#R
*                                       1  114CD TCD 1159 QCD   857.96 QC   855.59 QD     2.38
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	3.74	499.4	857.96	52.215	2	1532	0.02480	0.00	0.00	0	124	0	3.91	0.00
1 115C	12.0	1.25	511.4	842.95	52.613	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1 116C	0.0	0.00	511.4	842.95	52.583	2	949	0.01960	0.00	0.00	0	124	0	3.74	0.00

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**************************************************************************************************************************
*                                                      CONFLUENCE Q'S                                                    *
* 1  117B  TB 1162 QB   199.14 QBC   988.62 QC   789.48       1  117C  TC 1164 QC   835.28 QC-
76076613480269115000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□B
175.85 Q□     1.#R
*                                       1  117BC TBC 1163 QBC  1016.71 QB   191.72 QC   825.00
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	511.4	835.28	826.0	1016.71	68.358	2	1210	0.01230	0.00	0.00	0	124	0	3.74	0.00
1 118B	34.1	3.31	860.1	990.14	69.417	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 119B	0.0	0.00	860.1	990.14	69.339	2	944	0.01350	0.00	0.00	0	124	0	3.50	0.00
1 120E	31.1	3.32	31.1	3.32	1.063	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 121E	0.0	0.00	31.1	3.32	1.062	2	2049	0.03100	0.00	0.00	0	124	0	3.85	0.00
1 122E	18.9	1.99	50.0	4.76	1.700	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 123E	0.0	0.00	50.0	4.76	1.699	2	866	0.03040	0.00	0.00	0	124	0	3.80	0.00
1 124E	37.4	3.82	87.4	7.97	2.921	0	0	0.00000	0.00	0.00	0	134	30	3.68	0.01
1 125E	0.0	0.00	87.4	7.97	2.917	2	1753	0.01750	0.00	0.00	0	134	0	3.68	0.00
1 126E	21.3	2.10	108.7	9.04	3.590	0	0	0.00000	0.00	0.00	0	134	30	3.56	0.01
1 127E	0.0	0.00	108.7	9.04	3.583	2	919	0.01770	0.00	0.00	0	134	0	3.56	0.00
1 128E	16.6	1.61	125.3	9.85	4.098	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 129E	0.0	0.00	125.3	9.85	4.087	2	904	0.01440	0.00	0.00	0	134	0	3.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  130B  TB 1168 QB   975.83 QBE   983.37 QE     7.55       1  130E  TE 1185 QE     9.67 QE    -0.00 Q□B   263.65 Q□     1.#R
*                                   1  130BE TBE 1168 QBE   983.37 QB   975.83 QE     7.55
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	9.67	985.4	983.37	73.271	2	1100	0.01140	0.00	0.00	0	134	0	3.50	0.00
1 131F	13.6	1.43	13.6	1.43	0.459	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 132F	0.0	0.00	13.6	1.43	0.457	2	906	0.03180	0.00	0.00	0	134	0	3.80	0.00
1 133F	26.6	2.76	40.2	4.05	1.340	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 134F	0.0	0.00	40.2	4.05	1.340	2	1224	0.02140	0.00	0.00	0	134	0	3.74	0.00
1 135F	37.2	3.74	77.4	7.24	2.535	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 136F	0.0	0.00	77.4	7.24	2.533	2	1787	0.01630	0.00	0.00	0	134	0	3.62	0.00
1 137F	24.5	2.38	101.9	8.46	3.294	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 138F	0.0	0.00	101.9	8.46	3.289	2	979	0.01940	0.00	0.00	0	134	0	3.50	0.00
1 139F	14.3	1.37	116.2	9.11	3.727	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1 140F	0.0	0.00	116.2	9.11	3.719	2	790	0.01440	0.00	0.00	0	134	0	3.45	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  141B  TB 1171 QB   960.65 QBF   968.15 QF     7.50       1  141F  TF 1185 QF     8.97 QF    -0.00 QÝB   369.71 Q□     1.#R
*                                   1  141BF TBF 1171 QBF   968.15 QB   960.65 QF     7.50
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	8.97	1101.6	968.15	76.762	2	1041	0.00840	0.00	0.00	0	134	0	3.45	0.00
1 142B	27.0	2.41	1128.6	943.38	77.532	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 143B	0.0	0.00	1128.6	943.38	77.367	2	872	0.01000	0.00	0.00	0	124	0	3.21	0.00
1 144B	24.7	2.13	1153.3	932.09	78.047	0	0	0.00000	0.00	0.00	0	124	30	3.10	0.01
1 145B	0.0	0.00	1153.3	932.09	77.786	2	1127	0.01000	0.00	0.00	0	124	0	3.10	0.00
1 146B	26.0	2.15	1179.3	909.00	78.474	0	0	0.00000	0.00	0.00	0	124	30	2.98	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1179.3	909.00	78.191	2	1083	0.00870	0.00	0.00	0	124	0	2.98	0.00
1 148B	22.6	1.79	1201.9	884.65	78.765	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 149B	0.0	0.00	1201.9	884.65	78.497	2	872	0.00640	0.00	0.00	0	124	0	2.86	0.00
1 150B	28.5	2.13	1230.4	865.02	79.178	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 151B	0.0	0.00	1230.4	865.02	78.839	2	1358	0.01000	0.00	0.00	0	124	0	2.69	0.00
1 152B	23.4	1.67	1253.8	835.05	79.373	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 153B	0.0	0.00	1253.8	835.05	79.047	2	1217	0.00940	0.00	0.00	0	124	0	2.57	0.00
1 154B	20.9	1.42	1274.7	809.56	79.502	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 155B	0.0	0.00	1274.7	809.56	79.324	2	807	0.01170	0.00	0.00	0	124	0	2.45	0.00
1 156B	26.1	1.73	1300.8	802.87	79.878	0	0	0.00000	0.00	0.00	0	124	30	2.39	0.01
1 157B	0.0	0.00	1300.8	802.87	79.643	2	966	0.01090	0.00	0.00	0	124	0	2.39	0.00
1 158B	26.4	1.71	1327.2	792.83	80.191	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 159B	0.0	0.00	1327.2	792.83	79.937	2	973	0.01030	0.00	0.00	0	124	0	2.34	0.00
1 160B	29.7	1.88	1356.9	779.83	80.538	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 161B	0.0	0.00	1356.9	779.83	80.226	2	1044	0.00880	0.00	0.00	0	124	0	2.28	0.00
1 162B	27.9	1.72	1384.8	761.44	80.776	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1 163B	0.0	0.00	1384.8	761.44	80.463	2	1101	0.01000	0.00	0.00	0	124	0	2.22	0.00
1 164B	25.2	1.55	1410.0	742.79	80.960	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1 165B	0.0	0.00	1410.0	742.79	80.655	2	1034	0.00970	0.00	0.00	0	124	0	2.22	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinA.lac Run date: Tue Sep 22 16:14:56 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	3.33	40.0	3.33	1.065	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1	2A	0.0	0.00	40.0	3.33	1.062	2	2398	0.00920	0.00	0.00	0	124	0	3.00	0.00
1	3A	39.8	2.99	79.8	4.68	2.020	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1	4A	0.0	0.00	79.8	4.68	2.010	2	1498	0.00970	0.00	0.00	0	124	0	2.71	0.00
1	5A	38.3	2.73	118.1	6.30	2.884	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	6A	0.0	0.00	118.1	6.30	2.869	2	1253	0.00910	0.00	0.00	0	124	0	2.57	0.00
1	7A	32.4	2.25	150.5	7.46	3.589	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	8A	0.0	0.00	150.5	7.46	3.571	2	1114	0.01010	0.00	0.00	0	124	0	2.50	0.00
1	9A	27.7	1.87	178.2	8.23	4.169	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	10A	0.0	0.00	178.2	8.23	4.141	2	1242	0.00870	0.00	0.00	0	124	0	2.43	0.00
1	11A	33.9	2.29	212.1	8.88	4.872	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	12A	0.0	0.00	212.1	8.88	4.833	2	1469	0.00990	0.00	0.00	0	124	0	2.43	0.00
1	13A	38.9	2.55	251.0	9.58	5.648	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1	14A	0.0	0.00	251.0	9.58	5.608	2	1177	0.00870	0.00	0.00	0	134	0	2.36	0.00
1	15A	38.3	2.42	289.3	10.53	6.383	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	16A	0.0	0.00	289.3	10.53	6.349	2	994	0.01040	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\untitled.lac Run date: Tue Sep 22 16:16:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	1.49	22.1	1.49	0.477	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	2B	0.0	0.00	22.1	1.49	0.475	2	2664	0.00930	0.00	0.00	0	124	0	2.43	0.00
1	3B	39.9	2.53	62.0	3.08	1.283	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1	4B	0.0	0.00	62.0	3.08	1.281	2	1443	0.01240	0.00	0.00	0	124	0	2.28	0.00
1	5B	39.0	2.47	101.0	4.93	2.070	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1	6B	0.0	0.00	101.0	4.93	2.067	2	732	0.01030	0.00	0.00	0	124	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinC.lac Run date: Tue Sep 22 16:32:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	2.19	17.8	2.19	0.700	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1	2C	0.0	0.00	17.8	2.19	0.699	2	1591	0.02010	0.00	0.00	0	124	0	4.43	0.00
1	3C	15.5	1.84	33.3	3.58	1.288	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1	4C	0.0	0.00	33.3	3.58	1.287	2	1045	0.01800	0.00	0.00	0	124	0	4.28	0.00
1	5C	29.5	3.39	62.8	6.27	2.371	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1	6C	0.0	0.00	62.8	6.27	2.370	2	1347	0.01730	0.00	0.00	0	124	0	4.14	0.00
1	7C	25.1	2.84	87.9	8.27	3.277	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1	8C	0.0	0.00	87.9	8.27	3.271	2	1037	0.01750	0.00	0.00	0	124	0	4.07	0.00
1	9C	20.7	2.30	108.6	9.80	4.007	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1	10C	0.0	0.00	108.6	9.80	4.000	2	733	0.01640	0.00	0.00	0	124	0	4.00	0.00
1	11C	25.8	2.81	134.4	11.71	4.900	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1	12C	0.0	0.00	134.4	11.71	4.892	2	713	0.01620	0.00	0.00	0	124	0	3.93	0.00
1	13C	31.9	3.48	166.3	14.11	6.005	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1	14C	0.0	0.00	166.3	14.11	5.991	2	939	0.01560	0.00	0.00	0	124	0	3.93	0.00
1	15C	34.6	3.71	200.9	16.58	7.177	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1	16C	0.0	0.00	200.9	16.58	7.158	2	903	0.01260	0.00	0.00	0	124	0	3.86	0.00
1	17C	32.8	3.38	233.7	18.65	8.238	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1	18C	0.0	0.00	233.7	18.65	8.210	2	1112	0.01420	0.00	0.00	0	124	0	3.71	0.00
1	19C	23.2	2.30	256.9	19.58	8.945	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	20C	0.0	0.00	256.9	19.58	8.905	2	1160	0.01210	0.00	0.00	0	124	0	3.57	0.00
1	21C	29.7	2.77	286.6	20.07	9.791	0	0	0.00000	0.00	0.00	0	124	30	3.36	0.01
1	22C	0.0	0.00	286.6	20.07	9.723	2	1549	0.01130	0.00	0.00	0	124	0	3.36	0.00
1	23C	35.4	2.95	322.0	20.54	10.666	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1	24C	0.0	0.00	322.0	20.54	10.555	2	1993	0.01060	0.00	0.00	0	124	0	3.00	0.00
1	25C	28.1	2.17	350.1	20.63	11.249	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.01
1	26C	0.0	0.00	350.1	20.63	11.198	2	765	0.00890	0.00	0.00	0	124	0	2.78	0.00
1	27C	35.0	2.50	385.1	21.06	11.996	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	28C	0.0	0.00	385.1	21.06	11.848	2	1922	0.00820	0.00	0.00	0	124	0	2.57	0.00
1	29C	34.0	2.36	419.1	21.13	12.603	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	30C	0.0	0.00	419.1	21.13	12.493	2	1457	0.01040	0.00	0.00	0	124	0	2.50	0.00
1	31C	29.3	1.98	448.4	21.30	13.125	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	32C	0.0	0.00	448.4	21.30	13.027	2	1251	0.01080	0.00	0.00	0	124	0	2.43	0.00
1	33C	35.6	2.33	484.0	21.56	13.773	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1	34C	0.0	0.00	484.0	21.56	13.593	2	2107	0.01100	0.00	0.00	0	124	0	2.36	0.00
1	35D	16.7	1.72	16.7	1.72	0.550	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	36D	0.0	0.00	16.7	1.72	0.549	2	1299	0.01300	0.00	0.00	0	134	0	3.71	0.00
1	37D	29.0	2.87	45.7	4.09	1.468	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	38D	0.0	0.00	45.7	4.09	1.467	2	1308	0.01380	0.00	0.00	0	124	0	3.57	0.00
1	39D	29.9	2.85	75.6	6.19	2.378	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1	40D	0.0	0.00	75.6	6.19	2.371	2	1530	0.01050	0.00	0.00	0	124	0	3.43	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.91	97.0	6.91	2.981	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 42D	0.0	0.00	97.0	6.91	2.968	2	1185	0.01070	0.00	0.00	0	124	0	3.21	0.00
1 43D	26.1	2.17	123.1	7.63	3.663	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 44D	0.0	0.00	123.1	7.63	3.637	2	1524	0.01060	0.00	0.00	0	124	0	3.00	0.00
1 45D	30.2	2.40	153.3	8.26	4.403	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 46D	0.0	0.00	153.3	8.26	4.359	2	1697	0.00840	0.00	0.00	0	124	0	2.86	0.00
1 47D	30.2	2.15	183.5	8.45	5.048	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 48D	0.0	0.00	183.5	8.45	5.013	2	1239	0.00990	0.00	0.00	0	124	0	2.57	0.00
1 49D	39.0	2.71	222.5	9.59	5.878	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1 50D	0.0	0.00	222.5	9.59	5.824	2	1500	0.00870	0.00	0.00	0	124	0	2.50	0.00
1 51D	31.8	2.14	254.3	10.23	6.510	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 52D	0.0	0.00	254.3	10.23	6.464	2	1258	0.01140	0.00	0.00	0	124	0	2.43	0.00
1 53D	23.0	1.55	277.3	10.58	6.960	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 54D	0.0	0.00	277.3	10.58	6.905	2	1118	0.00760	0.00	0.00	0	124	0	2.43	0.00
1 55D	14.6	0.96	291.9	10.64	7.211	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1 56D	0.0	0.00	291.9	10.64	7.148	2	1256	0.00990	0.00	0.00	0	124	0	2.36	0.00

****
* CONFLUENCE Q'S *
* 1 57C TC 1266 QC 21.34 QCD 30.99 QD 9.65 1 57D TD 1209 QD 10.58 QD-
460625465411173610000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q½C
17.41 Q 1.#R
* 1 57CD TCD 1263 QCD 31.02 QC 21.31 QD 9.70
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	10.58	775.9	31.02	20.739	2	5	0.00100	0.00	0.00	0	124	0	2.36	0.00
1 58E	12.6	0.83	12.6	0.83	0.264	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1 59E	0.0	0.00	12.6	0.83	0.180	2	1440	0.01150	0.00	0.00	0	124	0	2.36	0.00
1 60E	28.7	1.82	41.3	2.27	0.761	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 61E	0.0	0.00	41.3	2.27	0.759	2	3334	0.01150	0.00	0.00	0	124	0	2.28	0.00
1 62F	16.5	2.00	16.5	2.00	0.639	0	0	0.00000	0.00	0.00	0	124	30	4.36	0.01
1 63F	0.0	0.00	16.5	2.00	0.637	2	1673	0.02100	0.00	0.00	0	124	0	4.36	0.00
1 64F	24.0	2.85	40.5	4.31	1.549	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1 65F	0.0	0.00	40.5	4.31	1.548	2	955	0.02000	0.00	0.00	0	124	0	4.28	0.00
1 66F	33.9	3.90	74.4	7.65	2.794	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1 67F	0.0	0.00	74.4	7.65	2.793	2	1251	0.01830	0.00	0.00	0	124	0	4.14	0.00
1 68F	29.6	3.34	104.0	10.22	3.863	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1 69F	0.0	0.00	104.0	10.22	3.858	2	1122	0.01740	0.00	0.00	0	124	0	4.07	0.00
1 70F	25.9	2.88	129.9	12.16	4.777	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 71F	0.0	0.00	129.9	12.16	4.768	2	874	0.01460	0.00	0.00	0	124	0	4.00	0.00
1 72F	26.7	2.91	156.6	13.93	5.700	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 73F	0.0	0.00	156.6	13.93	5.686	2	907	0.01500	0.00	0.00	0	124	0	3.93	0.00
1 74F	29.9	3.20	186.5	15.69	6.711	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 75F	0.0	0.00	186.5	15.69	6.694	2	876	0.01400	0.00	0.00	0	124	0	3.86	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 76F	39.5	4.07	226.0	17.98	7.995	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1 77F	0.0	0.00	226.0	17.98	7.973	2	987	0.01600	0.00	0.00	0	124	0	3.71	0.00
1 78F	38.8	3.84	264.8	20.18	9.203	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 79F	0.0	0.00	264.8	20.18	9.176	2	900	0.01300	0.00	0.00	0	124	0	3.57	0.00
1 80F	39.6	3.77	304.4	22.27	10.382	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 81F	0.0	0.00	304.4	22.27	10.355	2	831	0.01430	0.00	0.00	0	124	0	3.43	0.00
1 82F	39.9	3.63	344.3	24.29	11.516	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 83F	0.0	0.00	344.3	24.29	11.483	2	829	0.01210	0.00	0.00	0	124	0	3.28	0.00
1 84F	39.8	3.47	384.1	26.03	12.592	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 85F	0.0	0.00	384.1	26.03	12.553	2	853	0.01170	0.00	0.00	0	124	0	3.14	0.00
1 86F	39.1	3.41	423.2	27.47	13.643	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 87F	0.0	0.00	423.2	27.47	13.579	2	1094	0.00990	0.00	0.00	0	124	0	3.14	0.00
1 88F	22.9	1.91	446.1	27.61	14.189	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 89F	0.0	0.00	446.1	27.61	14.125	2	845	0.00780	0.00	0.00	0	124	0	3.00	0.00
1 90F	36.2	2.79	482.3	28.21	15.019	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.01
1 91F	0.0	0.00	482.3	28.21	14.882	2	1675	0.00880	0.00	0.00	0	124	0	2.78	0.00
1 92F	23.7	1.69	506.0	28.20	15.423	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 93F	0.0	0.00	506.0	28.20	15.309	2	1298	0.00950	0.00	0.00	0	124	0	2.57	0.00
1 94F	17.9	1.24	523.9	28.25	15.706	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1 95F	0.0	0.00	523.9	28.25	15.605	2	1020	0.00840	0.00	0.00	0	124	0	2.50	0.00
1 96F	22.5	1.52	546.4	28.40	16.090	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 97F	0.0	0.00	546.4	28.40	15.921	2	1387	0.00640	0.00	0.00	0	124	0	2.43	0.00
1 98F	21.4	1.44	567.8	28.36	16.383	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 99F	0.0	0.00	567.8	28.36	16.256	2	1222	0.00990	0.00	0.00	0	124	0	2.43	0.00
1 100F	16.7	1.09	584.5	28.40	16.606	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1 101F	0.0	0.00	584.5	28.40	16.479	2	1247	0.01150	0.00	0.00	0	124	0	2.36	0.00
1 102F	23.0	1.46	607.5	28.50	16.945	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 103F	0.0	0.00	607.5	28.50	16.577	2	3287	0.01110	0.00	0.00	0	124	0	2.28	0.00
1 104G	18.2	1.19	18.2	1.19	0.381	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 105G	0.0	0.00	18.2	1.19	0.379	2	1898	0.01040	0.00	0.00	0	134	0	2.36	0.00
1 106G	39.9	2.53	58.1	3.05	1.187	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 107G	0.0	0.00	58.1	3.05	1.182	2	2469	0.00900	0.00	0.00	0	134	0	2.28	0.00
1 109C	21.4	1.35	797.3	31.21	21.172	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 108CE	41.3	1.82	838.6	32.04	21.931	0	0	0.00000	0.00	0.00	0	124	0	2.28	0.00
1 109CF	607.5	27.81	1446.1	59.52	38.509	0	0	0.00000	0.00	0.00	0	124	0	2.28	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  110C  TC 1269 QC    59.52 QCG    60.50 QG     0.97       1  110G  TG 1196 QG     2.63 QG     5.97 Q¶C    46.64 Q      1.#R
*                                     1  110CG TCG 1268 QCG    60.50 QC    59.51 QG     0.99
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	2.63	1504.2	60.50	39.155	2	2279	0.00940	0.00	0.00	0	124	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinH.lac Run date: Wed Sep 23 06:55:01 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.24	19.0	1.24	0.398	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1	2H	0.0	0.00	19.0	1.24	0.396	2	1718	0.00900	0.00	0.00	0	134	0	2.36	0.00
1	3H	39.5	2.50	58.5	3.06	1.196	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	4H	0.0	0.00	58.5	3.06	1.195	2	1850	0.01100	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinI.lac Run date: Wed Sep 23 07:01:11 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.24	10.8	1.24	0.397	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1	2I	0.0	0.00	10.8	1.24	0.395	2	1416	0.01690	0.00	0.00	0	124	0	4.14	0.00
1	3I	18.1	2.04	28.9	2.92	1.049	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1	4I	0.0	0.00	28.9	2.92	1.048	2	929	0.01630	0.00	0.00	0	124	0	4.07	0.00
1	5I	12.8	1.96	41.7	4.11	1.512	0	0	0.00000	0.00	0.00	0	124	16	4.07	0.01
1	6I	0.0	0.00	41.7	4.11	1.512	2	459	0.01690	0.00	0.00	0	124	0	4.07	0.00
1	7I	16.5	3.69	58.2	6.98	2.112	0	0	0.00000	0.00	0.00	0	134	16	4.00	0.01
1	8I	0.0	0.00	58.2	6.98	2.112	2	616	0.01360	0.00	0.00	0	134	0	4.00	0.00
1	9I	25.9	3.19	84.1	9.67	3.033	0	0	0.00000	0.00	0.00	0	134	24	4.00	0.01
1	10I	0.0	0.00	84.1	9.67	3.032	2	879	0.01490	0.00	0.00	0	134	0	4.00	0.00
1	11I	26.8	2.92	110.9	11.91	3.967	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1	12I	0.0	0.00	110.9	11.91	3.962	2	968	0.01270	0.00	0.00	0	134	0	3.93	0.00
1	13I	31.1	3.26	142.0	14.07	5.005	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01
1	14I	0.0	0.00	142.0	14.07	4.990	2	1180	0.01260	0.00	0.00	0	134	0	3.78	0.00
1	15I	37.7	3.88	179.7	15.79	6.232	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	16I	0.0	0.00	179.7	15.79	6.203	2	1443	0.01290	0.00	0.00	0	134	0	3.71	0.00
1	17I	27.6	2.68	207.3	15.97	7.061	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1	18I	0.0	0.00	207.3	15.97	7.036	2	900	0.01190	0.00	0.00	0	134	0	3.50	0.00
1	19I	25.5	2.42	232.8	16.49	7.811	0	0	0.00000	0.00	0.00	0	134	30	3.42	0.01
1	20I	0.0	0.00	232.8	16.49	7.785	2	838	0.01250	0.00	0.00	0	134	0	3.42	0.00
1	21I	37.2	3.39	270.0	17.51	8.868	0	0	0.00000	0.00	0.00	0	134	30	3.28	0.01
1	22I	0.0	0.00	270.0	17.51	8.822	2	1165	0.01030	0.00	0.00	0	134	0	3.28	0.00
1	23I	34.3	2.99	304.3	18.34	9.778	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1	24I	0.0	0.00	304.3	18.34	9.732	2	1034	0.01070	0.00	0.00	0	134	0	3.14	0.00
1	25I	38.0	3.16	342.3	19.43	10.744	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1	26I	0.0	0.00	342.3	19.43	10.690	2	1049	0.01010	0.00	0.00	0	134	0	3.00	0.00
1	27I	39.5	2.97	381.8	20.28	11.640	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.01
1	28I	0.0	0.00	381.8	20.28	11.508	2	2077	0.00930	0.00	0.00	0	134	0	2.71	0.00
1	29I	29.4	2.04	411.2	20.21	12.160	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.01
1	30I	0.0	0.00	411.2	20.21	12.039	2	1661	0.00960	0.00	0.00	0	134	0	2.50	0.00
1	31I	39.6	2.67	450.8	20.60	12.894	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1	32I	0.0	0.00	450.8	20.60	12.791	2	1306	0.00980	0.00	0.00	0	134	0	2.43	0.00
1	33I	39.3	2.65	490.1	21.01	13.639	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1	34I	0.0	0.00	490.1	21.01	13.508	2	1279	0.00660	0.00	0.00	0	134	0	2.43	0.00
1	35I	26.7	1.75	516.8	21.21	14.067	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1	36I	0.0	0.00	516.8	21.21	13.995	2	878	0.01140	0.00	0.00	0	134	0	2.36	0.00
1	37I	37.9	2.40	554.7	21.57	14.762	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	38I	0.0	0.00	554.7	21.57	14.564	2	1809	0.00760	0.00	0.00	0	134	0	2.28	0.00
1	39J	27.8	2.86	27.8	2.86	0.916	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	40J	0.0	0.00	27.8	2.86	0.915	2	1645	0.01190	0.00	0.00	0	134	0	3.71	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.86	46.6	4.00	1.510	0	0	0.00000	0.00	0.00	0	134	30	3.57	0.01
1 42J	0.0	0.00	46.6	4.00	1.509	2	760	0.01290	0.00	0.00	0	134	0	3.57	0.00
1 43J	32.3	3.14	78.9	6.40	2.513	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 44J	0.0	0.00	78.9	6.40	2.510	2	1022	0.01280	0.00	0.00	0	134	0	3.50	0.00
1 45J	32.3	3.01	111.2	8.63	3.474	0	0	0.00000	0.00	0.00	0	134	30	3.36	0.01
1 46J	0.0	0.00	111.2	8.63	3.464	2	1126	0.01150	0.00	0.00	0	134	0	3.36	0.00
1 47J	27.3	2.38	138.5	10.05	4.225	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1 48J	0.0	0.00	138.5	10.05	4.209	2	1116	0.01060	0.00	0.00	0	134	0	3.14	0.00
1 49J	22.5	1.87	161.0	10.64	4.808	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1 50J	0.0	0.00	161.0	10.64	4.787	2	1019	0.01040	0.00	0.00	0	134	0	3.00	0.00
1 51J	18.6	1.40	179.6	10.79	5.234	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.01
1 52J	0.0	0.00	179.6	10.79	5.205	2	1085	0.00980	0.00	0.00	0	134	0	2.71	0.00
1 53J	35.3	2.66	214.9	11.35	6.054	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.01
1 54J	0.0	0.00	214.9	11.35	6.011	2	1400	0.01030	0.00	0.00	0	134	0	2.71	0.00
1 55J	40.0	2.85	254.9	11.86	6.923	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 56J	0.0	0.00	254.9	11.86	6.859	2	1510	0.00790	0.00	0.00	0	134	0	2.57	0.00
1 57J	40.0	2.70	294.9	12.35	7.721	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1 58J	0.0	0.00	294.9	12.35	7.656	2	1410	0.00900	0.00	0.00	0	134	0	2.43	0.00
1 59J	37.3	2.44	332.2	12.82	8.437	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 60J	0.0	0.00	332.2	12.82	8.362	2	1434	0.00910	0.00	0.00	0	134	0	2.36	0.00
1 61J	28.5	1.80	360.7	13.04	8.938	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 62J	0.0	0.00	360.7	13.04	8.795	2	2082	0.00730	0.00	0.00	0	134	0	2.28	0.00

```
*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   63I  TI 1264 QI    21.44 QIJ    34.32 QJ    12.87       1   63J  TJ 1232 QJ    12.97 QJ    -0.00 QæI    19.67 Q      1.#R
*                                        1   63IJ TIJ 1260 QIJ    34.35 QI    21.42 QJ    12.93
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	12.97	915.4	34.35	23.358	2	5	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinK.lac Run date: Wed Sep 23 16:16:48 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	252.2	632.02	252.2	632.02	29.691	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	252.2	632.02	29.675	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	2.73	273.7	625.04	30.547	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	4K	0.0	0.00	273.7	625.04	30.544	2	571	0.03050	0.00	0.00	0	124	0	4.57	0.00
1	5K	39.6	4.95	313.3	625.66	32.126	0	0	0.00000	0.00	0.00	0	124	30	4.50	0.01
1	6B	39.7	2.51	39.7	2.51	0.804	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	6K	0.0	0.00	313.3	625.66	32.145	2	1014	0.02040	0.00	0.00	0	134	0	2.28	0.00
1	7K	39.6	4.87	352.9	615.95	33.702	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1	8K	0.0	0.00	352.9	615.95	33.717	2	1054	0.01830	0.00	0.00	0	124	0	4.43	0.00
1	9K	30.7	3.65	383.6	601.36	34.883	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1	10K	0.0	0.00	383.6	601.36	34.886	2	957	0.01610	0.00	0.00	0	134	0	4.28	0.00
1	11K	33.2	3.88	416.8	591.89	36.127	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1	12K	0.0	0.00	416.8	591.89	36.059	2	1511	0.01470	0.00	0.00	0	134	0	4.21	0.00
1	13L	28.8	3.87	28.8	3.87	1.205	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1	14L	0.0	0.00	28.8	3.87	1.204	2	659	0.02120	0.00	0.00	0	134	0	4.71	0.00
1	15L	24.8	3.19	53.6	6.88	2.226	0	0	0.00000	0.00	0.00	0	134	30	4.64	0.01
1	16L	0.0	0.00	53.6	6.88	2.225	2	724	0.02090	0.00	0.00	0	134	0	4.64	0.00
1	17B	39.1	2.64	78.8	5.15	1.647	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1	18L	0.0	0.00	53.6	6.77	2.225	2	1152	0.01700	0.00	0.00	0	134	0	2.43	0.00
1	19L	21.3	2.62	74.9	8.54	3.062	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1	20L	0.0	0.00	74.9	8.54	3.056	2	1374	0.01640	0.00	0.00	0	134	0	4.43	0.00
1	21L	17.9	2.13	92.8	9.28	3.736	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1	22L	0.0	0.00	92.8	9.28	3.718	2	1523	0.01560	0.00	0.00	0	134	0	4.28	0.00

```
*                                                    CONFLUENCE Q'S                                                    *
* 1   23K  TK 1167 QK   553.96 QKL   560.20 QL     6.23       1   23L  TL 1192 QL     8.88 QL    -0.00 QæK    67.32 Q      1.#R
*                                      1   23KL TKL 1167 QKL   560.20 QK   553.96 QL     6.23
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	8.88	509.6	560.20	39.724	2	709	0.01300	0.00	0.00	0	134	0	4.28	0.00
1	24K	30.9	3.43	540.5	555.95	40.822	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	25K	0.0	0.00	540.5	555.95	40.763	2	778	0.01320	0.00	0.00	0	134	0	4.00	0.00
1	26K	32.3	3.59	572.8	549.49	41.910	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	27K	0.0	0.00	572.8	549.49	41.815	2	881	0.01070	0.00	0.00	0	134	0	4.00	0.00
1	28K	28.9	3.15	601.7	536.97	42.823	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1	29K	0.0	0.00	601.7	536.97	42.704	2	934	0.01050	0.00	0.00	0	134	0	3.93	0.00
1	30K	21.2	2.27	622.9	520.91	43.430	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1	31K	0.0	0.00	622.9	520.91	43.340	2	853	0.01320	0.00	0.00	0	134	0	3.86	0.00
1	32M	897.9	3790.98	897.9	3790.98	490.699	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 33M	0.0	0.00	897.9	3790.98	490.017	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	4.26	929.6	3665.99	491.343	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1 35M	0.0	0.00	929.6	3665.99	491.240	2	1319	0.02170	0.00	0.00	0	134	0	4.71	0.00
1 36M	29.5	3.74	959.1	3584.88	492.436	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 37M	0.0	0.00	959.1	3584.88	492.381	2	1114	0.01940	0.00	0.00	0	134	0	4.57	0.00
1 38M	27.9	3.42	987.0	3459.07	493.476	0	0	0.00000	0.00	0.00	0	134	30	4.42	0.01
1 39M	0.0	0.00	987.0	3459.07	493.438	2	1014	0.01810	0.00	0.00	0	134	0	4.42	0.00
1 40M	39.2	4.74	1026.2	3367.83	494.955	0	0	0.00000	0.00	0.00	0	134	30	4.36	0.01
1 41M	0.0	0.00	1026.2	3367.83	494.907	2	1409	0.01550	0.00	0.00	0	134	0	4.36	0.00
1 42N	363.9	758.07	363.9	758.07	42.660	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	363.9	758.07	42.687	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	7.46	403.4	749.19	44.366	0	0	0.00000	0.00	0.00	0	134	25	4.71	0.01
1 45N	0.0	0.00	403.4	749.19	44.365	2	684	0.05170	0.00	0.00	0	134	0	4.71	0.00
1 46N	38.9	5.01	442.3	752.34	45.968	0	0	0.00000	0.00	0.00	0	134	30	4.64	0.01
1 47N	0.0	0.00	442.3	752.34	45.960	2	702	0.02820	0.00	0.00	0	134	0	4.64	0.00
1 48N	37.9	4.81	480.2	752.23	47.498	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 49N	0.0	0.00	480.2	752.23	47.485	2	938	0.02310	0.00	0.00	0	134	0	4.57	0.00
1 50N	32.3	3.97	512.5	750.24	48.755	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 51N	0.0	0.00	512.5	750.24	48.650	2	1933	0.00920	0.00	0.00	0	134	0	4.43	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1160 QM 3246.69 QMN 3571.59 QN 324.90 1 52N TN 1167 QN 686.48 QN -0.00 Q.M 1374.61 Q 1.#R
* 1 52MN TMN 1161 QMN 3612.18 QM 3216.32 QN 395.86
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	512.5	686.48	1538.7	3612.18	543.465	2	885	0.02080	0.00	0.00	0	134	0	4.43	0.00
1 53M	18.1	2.08	1556.8	3562.57	544.130	0	0	0.00000	0.00	0.00	0	134	30	4.14	0.01
1 54M	0.0	0.00	1556.8	3562.57	543.920	2	1259	0.00920	0.00	0.00	0	134	0	4.14	0.00
1 55O	35.7	4.39	35.7	4.39	1.404	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 56O	0.0	0.00	35.7	4.39	1.402	2	2369	0.01220	0.00	0.00	0	134	0	4.43	0.00
1 57B	40.0	4.92	118.8	10.07	3.220	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 58O	0.0	0.00	35.7	3.72	1.394	2	1288	0.01250	0.00	0.00	0	134	0	4.43	0.00

****
* CONFLUENCE Q'S *
* 1 59M TM 1164 QM 3459.28 QMO 3461.01 QO 1.72 1 59O TO 1200 QO 3.55
QO461230934661815560000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q;M 479.71 Q 1.#R
* 1 59MO TMO 1164 QMO 3461.01 QM 3459.28 QO 1.72
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	3.55	1592.5	3461.01	544.961	2	934	0.01150	0.00	0.00	0	134	0	4.43	0.00
1 60M	21.5	2.39	1614.0	3408.00	545.725	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 61M	0.0	0.00	1614.0	3408.00	545.258	2	1075	0.01320	0.00	0.00	0	134	0	4.00	0.00
1 62M	0.0	0.00	1614.0	3339.54	545.255	2	5	0.01000	0.00	0.00	0	134	0	4.00	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1179 QK 511.39 QKM 1975.00 QM 1463.61 1 63M TM 1167 QM 3339.42
QM2563974354977353900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QªK 109.41 Q 1.#R
* 1 63KM TKM 1167 QKM 3448.83 QK 109.41 QM 3339.42
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1614.0	3339.42	2236.9	3448.83	588.593	2	5	0.01000	0.00	0.00	0	134	0	4.00	0.00
1 64K	31.4	3.43	2268.3	3451.94	589.689	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1 65K	0.0	0.00	2268.3	3451.94	589.210	2	784	0.01050	0.00	0.00	0	134	0	3.93	0.00
1 66K	37.2	3.99	2305.5	3417.22	590.485	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 67K	0.0	0.00	2305.5	3417.22	589.970	2	770	0.01080	0.00	0.00	0	124	0	3.86	0.00
1 68K	34.7	3.57	2340.2	3376.55	591.113	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1 69K	0.0	0.00	2340.2	3376.55	590.330	2	992	0.01000	0.00	0.00	0	124	0	3.71	0.00
1 70K	19.1	1.89	2359.3	3327.82	590.935	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 71K	0.0	0.00	2359.3	3327.82	589.983	2	975	0.00800	0.00	0.00	0	124	0	3.57	0.00
1 72K	10.9	1.06	2370.2	3269.40	590.322	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 73K	0.0	0.00	2370.2	3269.40	589.480	2	715	0.00700	0.00	0.00	0	124	0	3.50	0.00
1 74K	24.2	2.30	2394.4	3238.42	590.217	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 75K	0.0	0.00	2394.4	3238.42	589.116	2	1168	0.01280	0.00	0.00	0	124	0	3.43	0.00
1 76P	59.4	190.12	59.4	190.12	7.020	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	59.4	190.12	7.014	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	3.46	85.9	188.94	8.122	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 79P	0.0	0.00	85.9	188.94	8.116	2	1220	0.00870	0.00	0.00	0	124	0	4.71	0.00
1 80P	39.7	5.04	125.6	155.17	9.726	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 81P	0.0	0.00	125.6	155.17	9.705	2	2419	0.01850	0.00	0.00	0	134	0	4.57	0.00
1 82Q	40.0	5.38	40.0	5.38	1.673	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1 83Q	0.0	0.00	40.0	5.38	1.673	2	1582	0.02720	0.00	0.00	0	134	0	4.71	0.00
1 84Q	40.0	5.07	80.0	9.69	3.296	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 85Q	0.0	0.00	80.0	9.69	3.293	2	1847	0.02110	0.00	0.00	0	134	0	4.57	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1168 QP 118.48 QPQ 126.39 QQ 7.91 1 86Q TQ 1180 QQ 9.25 QQ-
3792032099529642500000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
* 1 86PQ TPQ 1168 QPQ 126.39 QP 118.48 QQ 7.91
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	9.25	205.6	126.39	12.975	2	949	0.02000	0.00	0.00	0	134	0	4.57	0.00
1 87P	40.0	5.07	245.6	126.32	14.598	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 88P	0.0	0.00	245.6	126.32	14.564	2	856	0.01150	0.00	0.00	0	134	0	4.57	0.00
1 89P	40.0	4.67	285.6	124.57	16.059	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1 90P	0.0	0.00	285.6	124.57	16.011	2	1066	0.01300	0.00	0.00	0	134	0	4.21	0.00
1 91P	40.0	4.60	325.6	121.58	17.482	0	0	0.00000	0.00	0.00	0	134	30	4.14	0.01
1 92P	0.0	0.00	325.6	121.58	17.401	2	1323	0.01000	0.00	0.00	0	134	0	4.14	0.00
1 93P	38.5	4.27	364.1	113.78	18.768	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1 94P	0.0	0.00	364.1	113.78	18.682	2	1231	0.00980	0.00	0.00	0	134	0	4.00	0.00
1 95P	32.9	3.59	397.0	108.57	19.829	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 96P	0.0	0.00	397.0	108.57	19.601	2	853	0.00100	0.00	0.00	0	124	0	3.93	0.00
1 97P	32.3	3.39	429.3	93.42	20.685	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.01
1 98P	0.0	0.00	429.3	93.42	20.591	2	903	0.00830	0.00	0.00	0	124	0	3.78	0.00
1 99P	36.0	3.64	465.3	92.49	21.754	0	0	0.00000	0.00	0.00	0	124	30	3.64	0.01
1 100P	0.0	0.00	465.3	92.49	21.620	2	1173	0.00770	0.00	0.00	0	124	0	3.64	0.00
1 101P	22.9	2.27	488.2	90.03	22.346	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 102P	0.0	0.00	488.2	90.03	22.267	2	832	0.01210	0.00	0.00	0	124	0	3.57	0.00
1 103P	12.6	1.20	500.8	89.46	22.651	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 104P	0.0	0.00	500.8	89.46	22.550	2	949	0.01050	0.00	0.00	0	124	0	3.43	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1176 QK 3193.33 QKP 3218.01 QP 24.68 1 105P TP 1228 QP 88.25 QP 0.00 QÎK 503.73 Q 1.#R
* 1 105KP TKP 1176 QKP 3218.01 QK 3193.33 QP 24.68
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	500.8	88.25	2895.2	3218.01	611.661	2	5	0.01000	0.00	0.00	0	124	0	3.43	0.00
1 106K	32.1	2.99	2927.3	3220.25	612.618	0	0	0.00000	0.00	0.00	0	124	30	3.36	0.01
1 107K	0.0	0.00	2927.3	3220.25	611.584	2	913	0.01100	0.00	0.00	0	124	0	3.36	0.00
1 108K	37.7	3.43	2965.0	3183.22	612.682	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 109K	0.0	0.00	2965.0	3183.22	611.361	2	1081	0.01000	0.00	0.00	0	124	0	3.28	0.00
1 110K	39.4	3.43	3004.4	3147.80	612.460	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 111K	0.0	0.00	3004.4	3147.80	611.249	2	1044	0.01240	0.00	0.00	0	124	0	3.14	0.00
1 112K	39.8	3.31	3044.2	3117.37	612.309	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 113K	0.0	0.00	3044.2	3117.37	610.929	2	1121	0.01110	0.00	0.00	0	124	0	3.00	0.00
1 114K	40.0	3.18	3084.2	3078.42	611.944	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 115K	0.0	0.00	3084.2	3078.42	610.630	2	960	0.00950	0.00	0.00	0	124	0	2.86	0.00
1 116K	39.8	2.99	3124.0	3047.44	611.588	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1 117K	0.0	0.00	3124.0	3047.44	610.349	2	919	0.00990	0.00	0.00	0	124	0	2.71	0.00
1 118K	39.8	2.84	3163.8	3025.77	611.257	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 119K	0.0	0.00	3163.8	3025.77	610.469	2	835	0.01980	0.00	0.00	0	134	0	2.57	0.00
1 120K	22.4	1.55	3186.2	3009.47	610.967	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.01
1 121K	0.0	0.00	3186.2	3009.47	609.433	2	1042	0.00770	0.00	0.00	0	134	0	2.50	0.00
1 122R	21.6	2.31	21.6	2.31	0.740	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 123R	0.0	0.00	21.6	2.31	0.739	2	1940	0.01230	0.00	0.00	0	134	0	3.86	0.00
1 124R	32.5	3.41	54.1	4.74	1.830	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 125R	0.0	0.00	54.1	4.74	1.828	2	1189	0.01320	0.00	0.00	0	134	0	3.78	0.00
1 126R	23.9	2.46	78.0	6.55	2.615	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1 127R	0.0	0.00	78.0	6.55	2.612	2	803	0.01280	0.00	0.00	0	134	0	3.71	0.00
1 128R	28.8	3.02	106.8	8.86	3.579	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01
1 129R	0.0	0.00	106.8	8.86	3.570	2	966	0.01040	0.00	0.00	0	134	0	3.78	0.00
1 130R	29.3	2.90	136.1	10.73	4.499	0	0	0.00000	0.00	0.00	0	134	30	3.57	0.01
1 131R	0.0	0.00	136.1	10.73	4.487	2	795	0.00960	0.00	0.00	0	134	0	3.57	0.00
1 132R	27.5	2.67	163.6	12.29	5.341	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 133R	0.0	0.00	163.6	12.29	5.328	2	759	0.01050	0.00	0.00	0	134	0	3.50	0.00
1 134R	27.3	2.60	190.9	13.72	6.159	0	0	0.00000	0.00	0.00	0	134	30	3.43	0.01
1 135R	0.0	0.00	190.9	13.72	6.141	2	740	0.00980	0.00	0.00	0	134	0	3.43	0.00
1 136R	29.4	2.74	220.3	15.12	7.018	0	0	0.00000	0.00	0.00	0	134	30	3.36	0.01
1 137R	0.0	0.00	220.3	15.12	6.994	2	849	0.01000	0.00	0.00	0	134	0	3.36	0.00
1 138R	36.9	3.36	257.2	16.76	8.069	0	0	0.00000	0.00	0.00	0	134	30	3.28	0.01
1 139R	0.0	0.00	257.2	16.76	8.037	2	960	0.01020	0.00	0.00	0	134	0	3.28	0.00
1 140R	27.6	2.41	284.8	17.62	8.806	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1 141R	0.0	0.00	284.8	17.62	8.782	2	705	0.01250	0.00	0.00	0	134	0	3.14	0.00
1 142R	36.0	3.00	320.8	19.04	9.740	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1 143R	0.0	0.00	320.8	19.04	9.699	2	966	0.01040	0.00	0.00	0	134	0	3.00	0.00
1 144R	39.6	3.06	360.4	20.14	10.676	0	0	0.00000	0.00	0.00	0	134	30	2.78	0.01
1 145R	0.0	0.00	360.4	20.14	10.620	2	1078	0.00940	0.00	0.00	0	134	0	2.78	0.00
1 146R	27.4	1.95	387.8	20.38	11.246	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 147R	0.0	0.00	387.8	20.38	11.214	2	693	0.01440	0.00	0.00	0	134	0	2.57	0.00
1 148R	27.6	1.97	415.4	20.90	11.844	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 149R	0.0	0.00	415.4	20.90	11.765	2	1266	0.00970	0.00	0.00	0	134	0	2.57	0.00
1 150R	20.7	1.44	436.1	21.14	12.224	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.01
1 151R	0.0	0.00	436.1	21.14	12.127	2	1379	0.00960	0.00	0.00	0	134	0	2.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1189 QK  2972.70 QKR  2991.70 QR    19.00       1  152R  TR 1211 QR    21.02 QR     0.00 QsK  1478.59 Q      1.#R
*                                        1  152KR TKR 1189 QKR  2991.70 QK  2972.70 QR    19.00
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	21.02	3622.3	2991.70	619.807	2	1212	0.00830	0.00	0.00	0	134	0	2.50	0.00
1 153K	38.8	2.62	3661.1	2942.50	620.644	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1 154K	0.0	0.00	3661.1	2942.50	617.762	2	2066	0.00970	0.00	0.00	0	134	0	2.43	0.00
1 155K	27.3	1.79	3688.4	2842.68	618.334	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 156K	0.0	0.00	3688.4	2842.68	615.790	2	1710	0.00880	0.00	0.00	0	134	0	2.36	0.00
1 157K	22.1	1.40	3710.5	2782.88	616.237	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 158K	0.0	0.00	3710.5	2782.88	613.655	2	1697	0.00870	0.00	0.00	0	134	0	2.28	0.00
1 159S	39.3	2.57	39.3	2.57	0.823	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 160S	0.0	0.00	39.3	2.57	0.822	2	2302	0.01100	0.00	0.00	0	134	0	2.36	0.00
1 161S	36.7	2.32	76.0	3.72	1.565	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 162S	0.0	0.00	76.0	3.72	1.557	2	2012	0.01210	0.00	0.00	0	134	0	2.28	0.00
1 163T	16.1	1.09	16.1	1.09	0.347	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1 164T	0.0	0.00	16.1	1.09	0.323	2	1839	0.00880	0.00	0.00	0	134	0	2.43	0.00
1 165T	28.5	1.92	44.6	2.38	0.938	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1 166T	0.0	0.00	44.6	2.38	0.937	2	887	0.01190	0.00	0.00	0	134	0	2.43	0.00
1 167T	38.0	2.40	82.6	4.49	1.706	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 168T	0.0	0.00	82.6	4.49	1.705	2	1078	0.00880	0.00	0.00	0	134	0	2.28	0.00
1 169T	39.8	2.52	122.4	6.23	2.511	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 170T	0.0	0.00	122.4	6.23	2.506	2	1337	0.01200	0.00	0.00	0	134	0	2.28	0.00
1 171T	29.2	1.85	151.6	7.06	3.097	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 172T	0.0	0.00	151.6	7.06	3.072	2	1813	0.00980	0.00	0.00	0	134	0	2.28	0.00
1 173KS	76.0	3.44	3786.5	2729.12	615.212	0	0	0.00000	0.00	0.00	0	134	0	2.28	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1202 QK 2729.12 QKT 2735.59 QT 6.47 1 174T TT 1197 QT 6.57 QT-
3228312867137287000000000000000000000000000000000000000000000000000000000000.00 Q^{2}K 2025.11 Q 1.#R
* 1 174KT TKT 1202 QKT 2735.59 QK 2729.12 QT 6.47
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	6.57	3938.1	2735.59	616.666	2	1115	0.00920	0.00	0.00	0	134	0	2.28	0.00
1 175K	28.5	1.80	3966.6	2717.38	617.243	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 176K	0.0	0.00	3966.6	2717.38	614.312	2	1834	0.00810	0.00	0.00	0	134	0	2.28	0.00
1 177U	29.4	1.86	29.4	1.86	0.595	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 178U	29.1	1.84	58.5	3.70	1.184	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 179U	0.0	0.00	58.5	3.70	1.175	2	3079	0.00820	0.00	0.00	0	134	0	2.28	0.00
1 180U	31.8	2.01	90.3	3.60	1.819	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 181U	0.0	0.00	90.3	3.60	1.800	2	2207	0.01120	0.00	0.00	0	134	0	2.28	0.00
1 182U	21.3	1.35	111.6	3.91	2.231	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 183U	0.0	0.00	111.6	3.91	2.191	2	2448	0.00810	0.00	0.00	0	134	0	2.28	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1208 QK 2657.57 QKU 2661.09 QU 3.51 1 184U TU 1225 QU 3.57
QU105447222810693290000000000000000000000000000000000000000000000000000000000000000000000.00
Q□K 1806.96 Q 1.#R
* 1 184KU TKU 1208 QKU 2661.09 QK 2657.57 QU 3.51
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	3.57	4078.2	2661.09	616.496	2	5	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinV.lac Run date: Wed Sep 23 07:34:52 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	1.51	23.8	1.51	0.482	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	2V	0.0	0.00	23.8	1.51	0.480	2	1412	0.01030	0.00	0.00	0	134	0	2.28	0.00
1	3V	39.4	2.49	63.2	3.42	1.278	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	4V	0.0	0.00	63.2	3.42	1.277	2	1046	0.01150	0.00	0.00	0	134	0	2.28	0.00
1	5V	39.9	2.53	103.1	5.38	2.085	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	6V	0.0	0.00	103.1	5.38	2.083	2	892	0.01000	0.00	0.00	0	134	0	2.28	0.00
1	7V	40.0	2.53	143.1	7.22	2.893	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	8V	0.0	0.00	143.1	7.22	2.887	2	964	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\BasinW.lac Run date: Wed Sep 23 07:48:04 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	2.48	24.1	2.48	0.794	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1	2B	27.6	1.75	27.6	1.75	0.559	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	2W	0.0	0.00	24.1	2.48	0.793	2	1848	0.01050	0.00	0.00	0	134	0	2.28	0.00
1	3W	22.3	2.21	46.4	3.78	1.499	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	4B	15.1	1.02	42.7	2.77	0.884	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1	4W	0.0	0.00	46.4	3.78	1.498	2	1007	0.01070	0.00	0.00	0	134	0	2.43	0.00
1	5W	26.9	2.56	73.3	5.58	2.317	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1	6W	0.0	0.00	73.3	5.58	2.311	2	1111	0.00990	0.00	0.00	0	124	0	3.43	0.00
1	7W	24.7	2.25	98.0	7.01	3.030	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1	8W	0.0	0.00	98.0	7.01	3.015	2	1118	0.00710	0.00	0.00	0	124	0	3.28	0.00
1	9W	35.1	3.06	133.1	8.50	3.993	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1	10W	0.0	0.00	133.1	8.50	3.971	2	1301	0.01000	0.00	0.00	0	124	0	3.14	0.00
1	11W	24.8	2.11	157.9	9.24	4.647	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	12W	0.0	0.00	157.9	9.24	4.628	2	779	0.00750	0.00	0.00	0	124	0	3.07	0.00
1	13W	36.2	3.01	194.1	10.84	5.592	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1	14W	0.0	0.00	194.1	10.84	5.572	2	915	0.01440	0.00	0.00	0	124	0	3.00	0.00
1	15W	33.0	2.62	227.1	12.42	6.410	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1	16W	0.0	0.00	227.1	12.42	6.391	2	796	0.01390	0.00	0.00	0	124	0	2.86	0.00
1	17W	39.5	2.97	266.6	14.36	7.342	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1	18W	0.0	0.00	266.6	14.36	7.314	2	930	0.01200	0.00	0.00	0	124	0	2.71	0.00
1	19W	32.8	2.34	299.4	15.70	8.063	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	20W	0.0	0.00	299.4	15.70	8.034	2	774	0.00940	0.00	0.00	0	124	0	2.57	0.00
1	21W	35.4	2.53	334.8	16.96	8.842	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	22W	0.0	0.00	334.8	16.96	8.791	2	1066	0.00820	0.00	0.00	0	124	0	2.57	0.00
1	23W	19.1	1.33	353.9	16.98	9.215	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.01
1	24W	0.0	0.00	353.9	16.98	9.162	2	860	0.00630	0.00	0.00	0	134	0	2.50	0.00
1	25W	11.4	0.79	365.3	17.00	9.415	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.01
1	26W	0.0	0.00	365.3	17.00	9.370	2	684	0.00730	0.00	0.00	0	134	0	2.50	0.00
1	27W	22.7	1.53	388.0	17.28	9.860	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01
1	28W	0.0	0.00	388.0	17.28	9.741	2	1949	0.01030	0.00	0.00	0	134	0	2.43	0.00
1	29X	7.3	0.52	7.3	0.52	0.167	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	30X	0.0	0.00	7.3	0.52	0.068	2	1088	0.00760	0.00	0.00	0	124	0	2.57	0.00
1	31X	23.1	1.60	30.4	1.87	0.581	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	32X	0.0	0.00	30.4	1.87	0.579	2	882	0.01350	0.00	0.00	0	124	0	2.50	0.00
1	33X	13.0	0.88	43.4	2.58	0.860	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	34X	0.0	0.00	43.4	2.58	0.858	2	429	0.01290	0.00	0.00	0	124	0	2.43	0.00
1	35X	18.5	1.25	61.9	3.63	1.257	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	36X	0.0	0.00	61.9	3.63	1.257	2	1115	0.01280	0.00	0.00	0	124	0	2.43	0.00
1	37WX	61.9	3.50	449.9	18.65	10.955	2	642	0.00980	0.00	0.00	0	124	0	2.43	0.00
1	38W	19.2	1.26	469.1	18.86	11.357	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	39W	0.0	0.00	469.1	18.86	11.252	2	1430	0.00960	0.00	0.00	0	124	0	2.36	0.00
1	40Y	6.4	0.46	6.4	0.46	0.146	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	41Y	0.0	0.00	6.4	0.46	0.051	2	970	0.00890	0.00	0.00	0	124	0	2.57	0.00
1	42Y	11.2	0.80	17.6	1.09	0.307	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	43Y	0.0	0.00	17.6	1.09	0.219	2	831	0.01140	0.00	0.00	0	124	0	2.57	0.00
1	44Y	15.6	1.08	33.2	1.96	0.566	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	45Y	0.0	0.00	33.2	1.96	0.540	2	883	0.01070	0.00	0.00	0	124	0	2.50	0.00
1	46Y	9.5	0.64	42.7	2.37	0.745	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	47Y	0.0	0.00	42.7	2.37	0.730	2	390	0.01680	0.00	0.00	0	124	0	2.43	0.00
1	48Y	13.1	0.86	55.8	3.02	1.005	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1	49Y	0.0	0.00	55.8	3.02	0.985	2	658	0.01670	0.00	0.00	0	124	0	2.36	0.00
1	50Y	24.4	2.40	80.2	4.93	1.753	0	0	0.00000	0.00	0.00	0	124	30	3.30	0.02
1	51Y	0.0	0.00	80.2	4.93	1.752	2	1416	0.01050	0.00	0.00	0	124	0	3.30	0.00
1	52WY	80.2	4.72	549.3	21.15	12.855	2	1623	0.00800	0.00	0.00	0	124	0	3.30	0.00
1	53Z	12.8	1.63	12.8	1.63	0.522	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.03
1	54Z	0.0	0.00	12.8	1.63	0.520	2	1273	0.01320	0.00	0.00	0	124	0	4.00	0.00
1	55Z	24.9	3.09	37.7	4.24	1.510	0	0	0.00000	0.00	0.00	0	124	30	3.90	0.03
1	56Z	0.0	0.00	37.7	4.24	1.510	2	1086	0.01170	0.00	0.00	0	124	0	3.90	0.00
1	57Z	25.8	3.04	63.5	6.61	2.483	0	0	0.00000	0.00	0.00	0	124	30	3.70	0.03
1	58Z	0.0	0.00	63.5	6.61	2.482	2	863	0.01350	0.00	0.00	0	124	0	3.70	0.00
1	59Z	30.1	3.45	93.6	9.31	3.586	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.03
1	60Z	0.0	0.00	93.6	9.31	3.582	2	922	0.01230	0.00	0.00	0	124	0	3.60	0.00
1	61Z	28.0	3.12	121.6	11.52	4.581	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.03
1	62Z	0.0	0.00	121.6	11.52	4.570	2	907	0.01020	0.00	0.00	0	124	0	3.50	0.00
1	63Z	32.7	3.65	154.3	13.82	5.736	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.03
1	64Z	0.0	0.00	154.3	13.82	5.718	2	1048	0.01130	0.00	0.00	0	124	0	3.50	0.00
1	65Z	25.7	2.61	180.0	15.03	6.551	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.02
1	66Z	0.0	0.00	180.0	15.03	6.528	2	1003	0.01240	0.00	0.00	0	134	0	3.40	0.00
1	67Z	9.1	0.92	189.1	15.07	6.823	0	0	0.00000	0.00	0.00	0	134	30	3.40	0.02
1	68Z	0.0	0.00	189.1	15.07	6.813	2	399	0.01470	0.00	0.00	0	134	0	3.40	0.00
1	69Z	24.4	2.40	213.5	16.01	7.580	0	0	0.00000	0.00	0.00	0	134	30	3.30	0.02
1	70Z	0.0	0.00	213.5	16.01	7.548	2	1072	0.01280	0.00	0.00	0	134	0	3.30	0.00
1	71Z	27.0	2.58	240.5	16.56	8.372	0	0	0.00000	0.00	0.00	0	134	30	3.20	0.02
1	72Z	0.0	0.00	240.5	16.56	8.315	2	1351	0.00920	0.00	0.00	0	134	0	3.20	0.00
1	73WZ	240.5	16.39	789.8	36.03	21.169	2	5	0.01000	0.00	0.00	0	134	0	3.20	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\Basin100A.lac Run date: Wed Sep 23 08:14:51 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.65	8.2	0.65	0.208	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 102A	0.0	0.00	8.2	0.65	0.109	2	1080	0.01170	0.00	0.00	0	124	0	2.86	0.00
1 103A	17.4	1.31	25.6	1.74	0.527	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1 104A	0.0	0.00	25.6	1.74	0.526	2	846	0.01260	0.00	0.00	0	124	0	2.71	0.00
1 105A	18.4	1.35	44.0	2.84	0.957	0	0	0.00000	0.00	0.00	0	124	30	2.64	0.01
1 106A	0.0	0.00	44.0	2.84	0.956	2	782	0.01420	0.00	0.00	0	124	0	2.64	0.00
1 107A	24.3	1.73	68.3	4.22	1.511	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 108A	0.0	0.00	68.3	4.22	1.510	2	822	0.01180	0.00	0.00	0	124	0	2.57	0.00
1 109A	21.0	1.50	89.3	5.26	1.989	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 110A	0.0	0.00	89.3	5.26	1.989	2	717	0.01020	0.00	0.00	0	124	0	2.57	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q10\Basin100B.lac Run date: Thu Sep 24 09:57:40 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	3.33	30.0	3.33	1.065	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 14B	22.1	2.50	52.1	5.83	1.864	0	0	0.00000	0.00	0.00	0	134	30	4.07	0.01
1 20B	38.7	4.45	90.8	10.28	3.286	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1 21B	11.2	1.29	102.0	11.56	3.698	0	0	0.00000	0.00	0.00	0	134	30	4.14	0.01
1 28B	24.5	3.01	126.5	14.57	4.661	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 29B	7.6	0.93	134.1	15.51	4.960	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1 35B	15.5	2.00	149.6	17.51	5.599	0	0	0.00000	0.00	0.00	0	124	30	4.64	0.01
1 36B	29.0	3.79	178.6	21.30	6.811	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 100B	67.1	239.25	245.7	259.73	14.752	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	259.73	14.754	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	3.51	271.7	257.74	15.876	0	0	0.00000	0.00	0.00	0	124	30	4.86	0.01
1 103B	0.0	0.00	271.7	257.74	15.878	2	1058	0.04570	0.00	0.00	0	124	0	4.86	0.00
1 104B	24.8	3.24	296.5	249.14	16.915	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 105B	0.0	0.00	296.5	249.14	16.904	2	1470	0.02950	0.00	0.00	0	124	0	4.71	0.00
1 106B	18.1	2.30	314.6	222.22	17.638	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 107B	0.0	0.00	314.6	222.22	17.629	2	959	0.01820	0.00	0.00	0	124	0	4.57	0.00
1 108C	515.6	1074.08	515.6	1074.08	60.443	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	515.6	1074.08	60.515	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	5.27	555.3	1064.22	62.199	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 111C	0.0	0.00	555.3	1064.22	62.211	2	1568	0.03970	0.00	0.00	0	124	0	4.78	0.00
1 112D	37.7	5.00	37.7	5.00	1.600	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 113D	0.0	0.00	37.7	5.00	1.600	2	2150	0.02780	0.00	0.00	0	124	0	4.78	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1159 QC  1052.06 QCD  1055.04 QD     2.98       1  114D  TD 1176 QD     4.60 QD    -0.00 QŠC   129.10 Q      1.#R
*                                      1  114CD TCD 1159 QCD  1055.04 QC  1052.06 QD     2.98
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	4.60	593.0	1055.04	63.817	2	1532	0.02480	0.00	0.00	0	124	0	4.78	0.00
1 115C	12.0	1.52	605.0	1036.60	64.304	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 116C	0.0	0.00	605.0	1036.60	64.263	2	949	0.01960	0.00	0.00	0	124	0	4.57	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   204.75 QBC  1207.90 QC  1003.15       1  117C  TC 1163 QC  1026.86
QC112891753010977250000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q°B   196.56 Q      1.#R
*                                      1  117BC TBC 1163 QBC  1223.42 QB   196.56 QC  1026.86
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	605.0	1026.86	919.6	1223.42	81.809	2	1210	0.01230	0.00	0.00	0	124	0	4.57	0.00
1 118B	34.1	4.05	953.7	1192.04	83.105	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1 119B	0.0	0.00	953.7	1192.04	83.009	2	944	0.01350	0.00	0.00	0	124	0	4.28	0.00
1 120E	31.1	4.07	31.1	4.07	1.300	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 121E	0.0	0.00	31.1	4.07	1.300	2	2049	0.03100	0.00	0.00	0	124	0	4.71	0.00
1 122E	18.9	2.43	50.0	5.87	2.078	0	0	0.00000	0.00	0.00	0	124	30	4.64	0.01
1 123E	0.0	0.00	50.0	5.87	2.077	2	866	0.03040	0.00	0.00	0	124	0	4.64	0.00
1 124E	37.4	4.67	87.4	9.83	3.571	0	0	0.00000	0.00	0.00	0	134	30	4.50	0.01
1 125E	0.0	0.00	87.4	9.83	3.565	2	1753	0.01750	0.00	0.00	0	134	0	4.50	0.00
1 126E	21.3	2.57	108.7	11.22	4.388	0	0	0.00000	0.00	0.00	0	134	30	4.35	0.01
1 127E	0.0	0.00	108.7	11.22	4.380	2	919	0.01770	0.00	0.00	0	134	0	4.35	0.00
1 128E	16.6	1.97	125.3	12.27	5.010	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1 129E	0.0	0.00	125.3	12.27	4.997	2	904	0.01440	0.00	0.00	0	134	0	4.28	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1  130B  TB 1168 QB  1175.60 QBE  1185.07 QE     9.48       1  130E  TE 1185 QE    12.09 QE    -0.00 Q#B   285.48 Q      1.#R
*                                   1  130BE TBE 1168 QBE  1185.07 QB  1175.60 QE     9.48
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	12.09	1079.0	1185.07	87.847	2	1100	0.01140	0.00	0.00	0	134	0	4.28	0.00
1 131F	13.6	1.75	13.6	1.75	0.560	0	0	0.00000	0.00	0.00	0	134	30	4.64	0.01
1 132F	0.0	0.00	13.6	1.75	0.559	2	906	0.03180	0.00	0.00	0	134	0	4.64	0.00
1 133F	26.6	3.37	40.2	4.96	1.638	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 134F	0.0	0.00	40.2	4.96	1.638	2	1224	0.02140	0.00	0.00	0	134	0	4.57	0.00
1 135F	37.2	4.57	77.4	8.91	3.101	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 136F	0.0	0.00	77.4	8.91	3.097	2	1787	0.01630	0.00	0.00	0	134	0	4.43	0.00
1 137F	24.5	2.91	101.9	10.51	4.028	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1 138F	0.0	0.00	101.9	10.51	4.021	2	979	0.01940	0.00	0.00	0	134	0	4.28	0.00
1 139F	14.3	1.67	116.2	11.37	4.556	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1 140F	0.0	0.00	116.2	11.37	4.546	2	790	0.01440	0.00	0.00	0	134	0	4.21	0.00

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*                                                    CONFLUENCE Q'S                                                    *
* 1  141B  TB 1170 QB  1163.78 QBF  1173.02 QF     9.24       1  141F  TF 1185 QF    11.21 QF     0.00 Q@B   399.40 Q      1.#R
*                                   1  141BF TBF 1170 QBF  1173.02 QB  1163.78 QF     9.24
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	11.21	1195.2	1173.02	92.149	2	1041	0.00840	0.00	0.00	0	134	0	4.21	0.00
1 142B	27.0	2.95	1222.2	1145.81	93.091	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 143B	0.0	0.00	1222.2	1145.81	92.904	2	872	0.01000	0.00	0.00	0	124	0	3.93	0.00
1 144B	24.7	2.59	1246.9	1133.55	93.733	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.01
1 145B	0.0	0.00	1246.9	1133.55	93.447	2	1127	0.01000	0.00	0.00	0	124	0	3.78	0.00
1 146B	26.0	2.63	1272.9	1107.71	94.287	0	0	0.00000	0.00	0.00	0	124	30	3.64	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 147B	0.0	0.00	1272.9	1107.71	93.973	2	1083	0.00870	0.00	0.00	0	124	0	3.64	0.00
1 148B	22.6	6.00	1295.5	1082.16	95.319	0	0	0.00000	0.00	0.00	0	124	30	6.50	0.01
1 149B	0.0	0.00	1295.5	1082.16	95.025	2	872	0.00640	0.00	0.00	0	124	0	6.50	0.00
1 150B	28.5	2.59	1324.0	1060.34	95.855	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 151B	0.0	0.00	1324.0	1060.34	95.461	2	1358	0.01000	0.00	0.00	0	124	0	3.28	0.00
1 152B	23.4	2.04	1347.4	1027.15	96.114	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 153B	0.0	0.00	1347.4	1027.15	95.738	2	1217	0.00940	0.00	0.00	0	124	0	3.14	0.00
1 154B	20.9	1.74	1368.3	999.72	96.295	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 155B	0.0	0.00	1368.3	999.72	96.083	2	807	0.01170	0.00	0.00	0	124	0	3.00	0.00
1 156B	26.1	2.12	1394.4	992.03	96.762	0	0	0.00000	0.00	0.00	0	124	30	2.93	0.01
1 157B	0.0	0.00	1394.4	992.03	96.507	2	966	0.01090	0.00	0.00	0	124	0	2.93	0.00
1 158B	26.4	2.10	1420.8	978.07	97.177	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 159B	0.0	0.00	1420.8	978.07	96.900	2	973	0.01030	0.00	0.00	0	124	0	2.86	0.00
1 160B	29.7	2.29	1450.5	965.48	97.633	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.01
1 161B	0.0	0.00	1450.5	965.48	97.280	2	1044	0.00880	0.00	0.00	0	124	0	2.78	0.00
1 162B	27.9	2.10	1478.4	944.66	97.951	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1 163B	0.0	0.00	1478.4	944.66	97.594	2	1101	0.01000	0.00	0.00	0	124	0	2.71	0.00
1 164B	25.2	1.90	1503.6	924.81	98.201	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1 165B	0.0	0.00	1503.6	924.81	97.856	2	1034	0.00970	0.00	0.00	0	124	0	2.71	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinAlac.lac Run date: Wed Sep 23 08:19:15 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	4.10	40.0	4.10	1.310	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1	2A	0.0	0.00	40.0	4.10	1.306	2	2398	0.00920	0.00	0.00	0	124	0	3.69	0.00
1	3A	39.8	3.69	79.8	5.87	2.486	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1	4A	0.0	0.00	79.8	5.87	2.475	2	1498	0.00970	0.00	0.00	0	124	0	3.34	0.00
1	5A	38.3	3.36	118.1	7.87	3.549	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	6A	0.0	0.00	118.1	7.87	3.532	2	1253	0.00910	0.00	0.00	0	124	0	3.16	0.00
1	7A	32.4	2.76	150.5	9.36	4.415	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	8A	0.0	0.00	150.5	9.36	4.394	2	1114	0.01010	0.00	0.00	0	124	0	3.07	0.00
1	9A	27.7	2.30	178.2	10.35	5.129	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	10A	0.0	0.00	178.2	10.35	5.097	2	1242	0.00870	0.00	0.00	0	124	0	2.99	0.00
1	11A	33.9	2.81	212.1	11.22	5.997	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	12A	0.0	0.00	212.1	11.22	5.951	2	1469	0.00990	0.00	0.00	0	124	0	2.99	0.00
1	13A	38.9	3.13	251.0	12.10	6.952	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1	14A	0.0	0.00	251.0	12.10	6.906	2	1177	0.00870	0.00	0.00	0	134	0	2.90	0.00
1	15A	38.3	2.99	289.3	13.28	7.861	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	16A	0.0	0.00	289.3	13.28	7.821	2	994	0.01040	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinB.lac Run date: Wed Sep 23 08:21:26 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	2.45	22.1	2.45	0.783	0	0	0.00000	0.00	0.00	0	124	30	3.99	0.01
1	2B	0.0	0.00	22.1	2.45	0.780	2	2664	0.00930	0.00	0.00	0	124	0	3.99	0.00
1	3B	39.9	3.11	62.0	4.07	1.775	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.01
1	4B	0.0	0.00	62.0	4.07	1.770	2	1443	0.01240	0.00	0.00	0	124	0	2.81	0.00
1	5B	39.0	3.04	101.0	6.40	2.743	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.01
1	6B	0.0	0.00	101.0	6.40	2.738	2	732	0.01030	0.00	0.00	0	124	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinC.lac Run date: Wed Sep 23 08:30:11 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	2.69	17.8	2.69	0.860	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1	2C	0.0	0.00	17.8	2.69	0.859	2	1591	0.02010	0.00	0.00	0	124	0	5.44	0.00
1	3C	15.5	2.27	33.3	4.44	1.584	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1	4C	0.0	0.00	33.3	4.44	1.583	2	1045	0.01800	0.00	0.00	0	124	0	5.27	0.00
1	5C	29.5	4.17	62.8	7.79	2.916	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1	6C	0.0	0.00	62.8	7.79	2.914	2	1347	0.01730	0.00	0.00	0	124	0	5.09	0.00
1	7C	25.1	3.48	87.9	10.30	4.028	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	8C	0.0	0.00	87.9	10.30	4.021	2	1037	0.01750	0.00	0.00	0	124	0	5.00	0.00
1	9C	20.7	2.83	108.6	12.23	4.925	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1	10C	0.0	0.00	108.6	12.23	4.918	2	733	0.01640	0.00	0.00	0	124	0	4.92	0.00
1	11C	25.8	3.46	134.4	14.64	6.024	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1	12C	0.0	0.00	134.4	14.64	6.014	2	713	0.01620	0.00	0.00	0	124	0	4.83	0.00
1	13C	31.9	4.28	166.3	17.65	7.382	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1	14C	0.0	0.00	166.3	17.65	7.366	2	939	0.01560	0.00	0.00	0	124	0	4.83	0.00
1	15C	34.6	4.55	200.9	20.73	8.822	0	0	0.00000	0.00	0.00	0	124	30	4.74	0.01
1	16C	0.0	0.00	200.9	20.73	8.800	2	903	0.01260	0.00	0.00	0	124	0	4.74	0.00
1	17C	32.8	4.16	233.7	23.36	10.131	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	18C	0.0	0.00	233.7	23.36	10.098	2	1112	0.01420	0.00	0.00	0	124	0	4.57	0.00
1	19C	23.2	2.83	256.9	24.63	11.002	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	20C	0.0	0.00	256.9	24.63	10.956	2	1160	0.01210	0.00	0.00	0	124	0	4.39	0.00
1	21C	29.7	3.40	286.6	25.33	12.045	0	0	0.00000	0.00	0.00	0	124	30	4.13	0.01
1	22C	0.0	0.00	286.6	25.33	11.966	2	1549	0.01130	0.00	0.00	0	124	0	4.13	0.00
1	23C	35.4	3.63	322.0	25.92	13.126	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1	24C	0.0	0.00	322.0	25.92	12.997	2	1993	0.01060	0.00	0.00	0	124	0	3.69	0.00
1	25C	28.1	2.67	350.1	26.06	13.851	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1	26C	0.0	0.00	350.1	26.06	13.791	2	765	0.00890	0.00	0.00	0	124	0	3.42	0.00
1	27C	35.0	3.07	385.1	26.61	14.773	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	28C	0.0	0.00	385.1	26.61	14.601	2	1922	0.00820	0.00	0.00	0	124	0	3.16	0.00
1	29C	34.0	2.90	419.1	26.72	15.528	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	30C	0.0	0.00	419.1	26.72	15.401	2	1457	0.01040	0.00	0.00	0	124	0	3.07	0.00
1	31C	29.3	2.43	448.4	26.95	16.179	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	32C	0.0	0.00	448.4	26.95	16.065	2	1251	0.01080	0.00	0.00	0	124	0	2.99	0.00
1	33C	35.6	2.87	484.0	27.29	16.981	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1	34C	0.0	0.00	484.0	27.29	16.776	2	2107	0.01100	0.00	0.00	0	124	0	2.90	0.00
1	35D	16.7	2.12	16.7	2.12	0.678	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	36D	0.0	0.00	16.7	2.12	0.676	2	1299	0.01300	0.00	0.00	0	134	0	4.57	0.00
1	37D	29.0	3.53	45.7	5.07	1.807	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	38D	0.0	0.00	45.7	5.07	1.806	2	1308	0.01380	0.00	0.00	0	124	0	4.39	0.00
1	39D	29.9	3.49	75.6	7.69	2.923	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1	40D	0.0	0.00	75.6	7.69	2.915	2	1530	0.01050	0.00	0.00	0	124	0	4.21	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	2.35	97.0	8.67	3.665	0	0	0.00000	0.00	0.00	0	124	30	3.95	0.01
1 42D	0.0	0.00	97.0	8.67	3.649	2	1185	0.01070	0.00	0.00	0	124	0	3.95	0.00
1 43D	26.1	2.67	123.1	9.63	4.504	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 44D	0.0	0.00	123.1	9.63	4.473	2	1524	0.01060	0.00	0.00	0	124	0	3.69	0.00
1 45D	30.2	2.94	153.3	10.41	5.415	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 46D	0.0	0.00	153.3	10.41	5.363	2	1697	0.00840	0.00	0.00	0	124	0	3.51	0.00
1 47D	30.2	2.65	183.5	10.68	6.210	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 48D	0.0	0.00	183.5	10.68	6.168	2	1239	0.00990	0.00	0.00	0	124	0	3.16	0.00
1 49D	39.0	3.32	222.5	12.07	7.231	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1 50D	0.0	0.00	222.5	12.07	7.167	2	1500	0.00870	0.00	0.00	0	124	0	3.07	0.00
1 51D	31.8	2.64	254.3	12.88	8.011	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 52D	0.0	0.00	254.3	12.88	7.958	2	1258	0.01140	0.00	0.00	0	124	0	2.99	0.00
1 53D	23.0	1.91	277.3	13.38	8.569	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 54D	0.0	0.00	277.3	13.38	8.504	2	1118	0.00760	0.00	0.00	0	124	0	2.99	0.00
1 55D	14.6	1.18	291.9	13.45	8.880	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1 56D	0.0	0.00	291.9	13.45	8.809	2	1256	0.00990	0.00	0.00	0	124	0	2.90	0.00

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* CONFLUENCE Q'S *
* 1 57C TC 1259 QC 27.01 QCD 39.23 QD 12.22 1 57D TD 1207 QD 13.37 QD-
3524471442829446700000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q@C 22.12 Q 1.#R
* 1 57CD TCD 1257 QCD 39.25 QC 26.99 QD 12.27
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	13.37	775.9	39.25	25.582	2	5	0.00100	0.00	0.00	0	124	0	2.90	0.00
1 58E	12.6	1.01	12.6	1.01	0.324	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1 59E	0.0	0.00	12.6	1.01	0.279	2	1440	0.01150	0.00	0.00	0	124	0	2.90	0.00
1 60E	28.7	2.24	41.3	2.81	0.995	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.01
1 61E	0.0	0.00	41.3	2.81	0.991	2	3334	0.01150	0.00	0.00	0	124	0	2.81	0.00
1 62F	16.5	2.45	16.5	2.45	0.785	0	0	0.00000	0.00	0.00	0	124	30	5.36	0.01
1 63F	0.0	0.00	16.5	2.45	0.784	2	1673	0.02100	0.00	0.00	0	124	0	5.36	0.00
1 64F	24.0	3.51	40.5	5.34	1.907	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1 65F	0.0	0.00	40.5	5.34	1.906	2	955	0.02000	0.00	0.00	0	124	0	5.27	0.00
1 66F	33.9	4.79	74.4	9.48	3.438	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1 67F	0.0	0.00	74.4	9.48	3.436	2	1251	0.01830	0.00	0.00	0	124	0	5.09	0.00
1 68F	29.6	4.11	104.0	12.70	4.750	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 69F	0.0	0.00	104.0	12.70	4.744	2	1122	0.01740	0.00	0.00	0	124	0	5.00	0.00
1 70F	25.9	3.54	129.9	15.17	5.875	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1 71F	0.0	0.00	129.9	15.17	5.864	2	874	0.01460	0.00	0.00	0	124	0	4.92	0.00
1 72F	26.7	3.58	156.6	17.45	7.009	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 73F	0.0	0.00	156.6	17.45	6.993	2	907	0.01500	0.00	0.00	0	124	0	4.83	0.00
1 74F	29.9	3.91	186.5	19.69	8.244	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 75F	0.0	0.00	186.5	19.69	8.224	2	876	0.01400	0.00	0.00	0	124	0	4.71	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 76F	39.5	5.01	226.0	22.58	9.826	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 77F	0.0	0.00	226.0	22.58	9.800	2	987	0.01600	0.00	0.00	0	124	0	4.57	0.00
1 78F	38.8	4.73	264.8	25.33	11.313	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 79F	0.0	0.00	264.8	25.33	11.282	2	900	0.01300	0.00	0.00	0	124	0	4.39	0.00
1 80F	39.6	4.63	304.4	27.97	12.762	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 81F	0.0	0.00	304.4	27.97	12.730	2	831	0.01430	0.00	0.00	0	124	0	4.21	0.00
1 82F	39.9	4.47	344.3	30.53	14.161	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 83F	0.0	0.00	344.3	30.53	14.123	2	829	0.01210	0.00	0.00	0	124	0	4.04	0.00
1 84F	39.8	4.26	384.1	32.76	15.486	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 85F	0.0	0.00	384.1	32.76	15.441	2	853	0.01170	0.00	0.00	0	124	0	3.86	0.00
1 86F	39.1	4.19	423.2	34.66	16.780	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 87F	0.0	0.00	423.2	34.66	16.707	2	1094	0.00990	0.00	0.00	0	124	0	3.86	0.00
1 88F	22.9	2.35	446.1	34.89	17.457	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 89F	0.0	0.00	446.1	34.89	17.384	2	845	0.00780	0.00	0.00	0	124	0	3.69	0.00
1 90F	36.2	3.44	482.3	35.65	18.483	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1 91F	0.0	0.00	482.3	35.65	18.325	2	1675	0.00880	0.00	0.00	0	124	0	3.42	0.00
1 92F	23.7	2.08	506.0	35.65	18.990	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 93F	0.0	0.00	506.0	35.65	18.859	2	1298	0.00950	0.00	0.00	0	124	0	3.16	0.00
1 94F	17.9	1.53	523.9	35.72	19.346	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1 95F	0.0	0.00	523.9	35.72	19.229	2	1020	0.00840	0.00	0.00	0	124	0	3.07	0.00
1 96F	22.5	1.87	546.4	35.92	19.826	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 97F	0.0	0.00	546.4	35.92	19.630	2	1387	0.00640	0.00	0.00	0	124	0	2.99	0.00
1 98F	21.4	1.78	567.8	35.88	20.198	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 99F	0.0	0.00	567.8	35.88	20.052	2	1222	0.00990	0.00	0.00	0	124	0	2.99	0.00
1 100F	16.7	1.34	584.5	35.93	20.482	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1 101F	0.0	0.00	584.5	35.93	20.338	2	1247	0.01150	0.00	0.00	0	124	0	2.90	0.00
1 102F	23.0	1.79	607.5	36.07	20.912	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.01
1 103F	0.0	0.00	607.5	36.07	20.492	2	3287	0.01110	0.00	0.00	0	124	0	2.81	0.00
1 104G	18.2	1.47	18.2	1.47	0.469	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1 105G	0.0	0.00	18.2	1.47	0.467	2	1898	0.01040	0.00	0.00	0	134	0	2.90	0.00
1 106G	39.9	3.11	58.1	3.77	1.462	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 107G	0.0	0.00	58.1	3.77	1.455	2	2469	0.00900	0.00	0.00	0	134	0	2.81	0.00
1 109C	21.4	1.67	797.3	39.50	26.116	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.01
1 108CE	41.3	2.28	838.6	40.58	27.108	0	0	0.00000	0.00	0.00	0	124	0	2.81	0.00
1 109CF	607.5	35.21	1446.1	75.38	47.600	0	0	0.00000	0.00	0.00	0	124	0	2.81	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  110C  TC 1262 QC    75.38 QCG    76.64 QG     1.26       1  110G  TG 1195 QG     3.29 QG     0.00 QIC    59.26 Q      1.#R
*                                      1  110CG TCG 1262 QCG    76.64 QC    75.38 QG     1.26
*****************************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	3.29	1504.2	76.64	48.446	2	2279	0.00940	0.00	0.00	0	124	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinH.lac Run date: Wed Sep 23 08:47:25 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.53	19.0	1.53	0.489	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1	2H	0.0	0.00	19.0	1.53	0.488	2	1718	0.00900	0.00	0.00	0	134	0	2.90	0.00
1	3H	39.5	3.08	58.5	3.80	1.473	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	4H	0.0	0.00	58.5	3.80	1.470	2	1850	0.01100	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinI.lac Run date: Wed Sep 23 08:52:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.53	10.8	1.53	0.488	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1	2I	0.0	0.00	10.8	1.53	0.487	2	1416	0.01690	0.00	0.00	0	124	0	5.09	0.00
1	3I	18.1	2.51	28.9	3.61	1.290	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	4I	0.0	0.00	28.9	3.61	1.290	2	929	0.01630	0.00	0.00	0	124	0	5.00	0.00
1	5I	12.8	1.83	41.7	5.04	1.858	0	0	0.00000	0.00	0.00	0	124	28	5.00	0.01
1	6I	0.0	0.00	41.7	5.04	1.857	2	459	0.01690	0.00	0.00	0	124	0	5.00	0.00
1	7I	16.5	2.65	58.2	6.98	2.583	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	8I	0.0	0.00	58.2	6.98	2.583	2	616	0.01360	0.00	0.00	0	134	0	4.92	0.00
1	9I	25.9	4.16	84.1	10.20	3.723	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	10I	0.0	0.00	84.1	10.20	3.721	2	879	0.01490	0.00	0.00	0	134	0	4.92	0.00
1	11I	26.8	4.00	110.9	13.20	4.875	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1	12I	0.0	0.00	110.9	13.20	4.866	2	968	0.01270	0.00	0.00	0	134	0	4.83	0.00
1	13I	31.1	4.01	142.0	16.13	6.150	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1	14I	0.0	0.00	142.0	16.13	6.131	2	1180	0.01260	0.00	0.00	0	134	0	4.65	0.00
1	15I	37.7	4.78	179.7	18.81	7.661	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	16I	0.0	0.00	179.7	18.81	7.626	2	1443	0.01290	0.00	0.00	0	134	0	4.57	0.00
1	17I	27.6	3.29	207.3	19.49	8.680	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1	18I	0.0	0.00	207.3	19.49	8.651	2	900	0.01190	0.00	0.00	0	134	0	4.30	0.00
1	19I	25.5	2.98	232.8	20.23	9.604	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1	20I	0.0	0.00	232.8	20.23	9.574	2	838	0.01250	0.00	0.00	0	134	0	4.21	0.00
1	21I	37.2	4.17	270.0	21.95	10.908	0	0	0.00000	0.00	0.00	0	134	30	4.04	0.01
1	22I	0.0	0.00	270.0	21.95	10.854	2	1165	0.01030	0.00	0.00	0	134	0	4.04	0.00
1	23I	34.3	3.68	304.3	23.06	12.030	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1	24I	0.0	0.00	304.3	23.06	11.976	2	1034	0.01070	0.00	0.00	0	134	0	3.86	0.00
1	25I	38.0	3.89	342.3	24.46	13.221	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1	26I	0.0	0.00	342.3	24.46	13.158	2	1049	0.01010	0.00	0.00	0	134	0	3.69	0.00
1	27I	39.5	3.66	381.8	25.61	14.329	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.01
1	28I	0.0	0.00	381.8	25.61	14.175	2	2077	0.00930	0.00	0.00	0	134	0	3.34	0.00
1	29I	29.4	2.51	411.2	25.49	14.977	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.01
1	30I	0.0	0.00	411.2	25.49	14.836	2	1661	0.00960	0.00	0.00	0	134	0	3.07	0.00
1	31I	39.6	3.29	450.8	25.99	15.887	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	32I	0.0	0.00	450.8	25.99	15.769	2	1306	0.00980	0.00	0.00	0	134	0	2.99	0.00
1	33I	39.3	3.26	490.1	26.51	16.812	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	34I	0.0	0.00	490.1	26.51	16.659	2	1279	0.00660	0.00	0.00	0	134	0	2.99	0.00
1	35I	26.7	2.15	516.8	26.75	17.347	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1	36I	0.0	0.00	516.8	26.75	17.263	2	878	0.01140	0.00	0.00	0	134	0	2.90	0.00
1	37I	37.9	2.96	554.7	27.21	18.209	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	38I	0.0	0.00	554.7	27.21	17.981	2	1809	0.00760	0.00	0.00	0	134	0	2.81	0.00
1	39J	27.8	3.53	27.8	3.53	1.128	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	40J	0.0	0.00	27.8	3.53	1.127	2	1645	0.01190	0.00	0.00	0	134	0	4.57	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	2.29	46.6	4.98	1.860	0	0	0.00000	0.00	0.00	0	134	30	4.39	0.01
1 42J	0.0	0.00	46.6	4.98	1.858	2	760	0.01290	0.00	0.00	0	134	0	4.39	0.00
1 43J	32.3	3.86	78.9	7.97	3.091	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1 44J	0.0	0.00	78.9	7.97	3.088	2	1022	0.01280	0.00	0.00	0	134	0	4.30	0.00
1 45J	32.3	3.70	111.2	10.74	4.272	0	0	0.00000	0.00	0.00	0	134	30	4.13	0.01
1 46J	0.0	0.00	111.2	10.74	4.260	2	1126	0.01150	0.00	0.00	0	134	0	4.13	0.00
1 47J	27.3	2.93	138.5	12.56	5.196	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 48J	0.0	0.00	138.5	12.56	5.176	2	1116	0.01060	0.00	0.00	0	134	0	3.86	0.00
1 49J	22.5	2.30	161.0	13.40	5.913	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1 50J	0.0	0.00	161.0	13.40	5.889	2	1019	0.01040	0.00	0.00	0	134	0	3.69	0.00
1 51J	18.6	1.72	179.6	13.61	6.440	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.01
1 52J	0.0	0.00	179.6	13.61	6.406	2	1085	0.00980	0.00	0.00	0	134	0	3.34	0.00
1 53J	35.3	3.27	214.9	14.32	7.453	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.01
1 54J	0.0	0.00	214.9	14.32	7.401	2	1400	0.01030	0.00	0.00	0	134	0	3.34	0.00
1 55J	40.0	3.51	254.9	14.98	8.523	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.01
1 56J	0.0	0.00	254.9	14.98	8.448	2	1510	0.00790	0.00	0.00	0	134	0	3.16	0.00
1 57J	40.0	3.32	294.9	15.63	9.510	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1 58J	0.0	0.00	294.9	15.63	9.433	2	1410	0.00900	0.00	0.00	0	134	0	2.99	0.00
1 59J	37.3	3.00	332.2	16.24	10.393	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1 60J	0.0	0.00	332.2	16.24	10.306	2	1434	0.00910	0.00	0.00	0	134	0	2.90	0.00
1 61J	28.5	2.22	360.7	16.52	11.017	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 62J	0.0	0.00	360.7	16.52	10.851	2	2082	0.00730	0.00	0.00	0	134	0	2.81	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   63I  TI 1256 QI    27.04 QIJ    43.37 QJ    16.33       1   63J  TJ 1229 QJ    16.43 QJ     0.00 Q»I    25.05 Q      1.#R
*                                        1   63IJ TIJ 1254 QIJ    43.39 QI    27.03 QJ    16.37
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	16.43	915.4	43.39	28.831	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinK.lac Run date: Wed Sep 23 18:19:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	310.1	777.12	310.1	777.12	36.507	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	310.1	777.12	36.486	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	7.50	331.6	772.77	37.610	0	0	0.00000	0.00	0.00	0	124	18	5.62	0.01
1	4K	0.0	0.00	331.6	772.77	37.609	2	571	0.03050	0.00	0.00	0	124	0	5.62	0.00
1	5K	39.6	6.30	371.2	773.40	39.555	0	0	0.00000	0.00	0.00	0	124	30	5.53	0.01
1	6B	39.7	3.10	39.7	3.10	0.990	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	6K	0.0	0.00	371.2	773.40	39.564	2	1014	0.02040	0.00	0.00	0	134	0	2.81	0.00
1	7K	39.6	5.98	410.8	763.45	41.476	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1	8K	0.0	0.00	410.8	763.45	41.497	2	1054	0.01830	0.00	0.00	0	124	0	5.44	0.00
1	9K	30.7	6.40	441.5	753.20	42.969	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1	10K	0.0	0.00	441.5	753.20	42.971	2	957	0.01610	0.00	0.00	0	134	0	5.27	0.00
1	11K	33.2	6.50	474.7	743.64	44.528	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1	12K	0.0	0.00	474.7	743.64	44.447	2	1511	0.01470	0.00	0.00	0	134	0	5.18	0.00
1	13L	28.8	20.62	28.8	20.62	1.703	0	0	0.00000	0.00	0.00	0	134	14	5.79	0.01
1	14L	0.0	0.00	28.8	20.62	1.702	2	659	0.02120	0.00	0.00	0	134	0	5.79	0.00
1	15L	24.8	15.13	53.6	33.23	3.130	0	0	0.00000	0.00	0.00	0	134	16	5.71	0.01
1	16L	0.0	0.00	53.6	33.23	3.130	2	724	0.02090	0.00	0.00	0	134	0	5.71	0.00
1	17B	39.1	3.25	78.8	6.34	2.028	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	18L	0.0	0.00	53.6	31.83	3.129	2	1152	0.01700	0.00	0.00	0	134	0	2.99	0.00
1	19L	21.3	4.97	74.9	32.05	4.194	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1	20L	0.0	0.00	74.9	32.05	4.190	2	1374	0.01640	0.00	0.00	0	134	0	5.44	0.00
1	21L	17.9	3.73	92.8	30.33	5.048	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1	22L	0.0	0.00	92.8	30.33	5.030	2	1523	0.01560	0.00	0.00	0	134	0	5.27	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1   23K  TK 1167 QK   698.76 QKL   708.15 QL     9.38       1   23L  TL 1185 QL    27.09 QL-
1145305994511848600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□K
125.67 Q      1.#R
*                                        1   23KL TKL 1167 QKL   708.15 QK   698.76 QL     9.38
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	27.09	567.5	708.15	49.411	2	709	0.01300	0.00	0.00	0	134	0	5.27	0.00
1	24K	30.9	4.97	598.4	703.33	50.771	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	25K	0.0	0.00	598.4	703.33	50.697	2	778	0.01320	0.00	0.00	0	134	0	4.92	0.00
1	26K	32.3	5.19	630.7	696.78	52.118	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	27K	0.0	0.00	630.7	696.78	52.019	2	881	0.01070	0.00	0.00	0	134	0	4.92	0.00
1	28K	28.9	4.32	659.6	681.05	53.264	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1	29K	0.0	0.00	659.6	681.05	53.135	2	934	0.01050	0.00	0.00	0	134	0	4.83	0.00
1	30K	21.2	2.93	680.8	665.58	54.029	0	0	0.00000	0.00	0.00	0	134	30	4.74	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 31K	0.0	0.00	680.8	665.58	53.927	2	853	0.01320	0.00	0.00	0	134	0	4.74	0.00
1 32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	9.13	971.7	3841.28	514.716	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1 35M	0.0	0.00	971.7	3841.28	514.606	2	1319	0.02170	0.00	0.00	0	134	0	5.79	0.00
1 36M	29.5	7.70	1001.2	3765.76	516.146	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1 37M	0.0	0.00	1001.2	3765.76	516.089	2	1114	0.01940	0.00	0.00	0	134	0	5.62	0.00
1 38M	27.9	6.51	1029.1	3644.81	517.484	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 39M	0.0	0.00	1029.1	3644.81	517.446	2	1014	0.01810	0.00	0.00	0	134	0	5.44	0.00
1 40M	39.2	8.68	1068.3	3535.55	519.367	0	0	0.00000	0.00	0.00	0	134	30	5.36	0.01
1 41M	0.0	0.00	1068.3	3535.55	519.309	2	1409	0.01550	0.00	0.00	0	134	0	5.36	0.00
1 42N	447.4	932.01	447.4	932.01	52.448	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	447.4	932.01	52.493	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	32.84	486.9	947.60	54.851	0	0	0.00000	0.00	0.00	0	134	12	5.79	0.01
1 45N	0.0	0.00	486.9	947.60	54.851	2	684	0.05170	0.00	0.00	0	134	0	5.79	0.00
1 46N	38.9	27.06	525.8	968.49	57.111	0	0	0.00000	0.00	0.00	0	134	14	5.71	0.01
1 47N	0.0	0.00	525.8	968.49	57.103	2	702	0.02820	0.00	0.00	0	134	0	5.71	0.00
1 48N	37.9	15.69	563.7	979.86	59.170	0	0	0.00000	0.00	0.00	0	134	22	5.62	0.01
1 49N	0.0	0.00	563.7	979.86	59.150	2	938	0.02310	0.00	0.00	0	134	0	5.62	0.00
1 50N	32.3	7.54	596.0	976.86	60.765	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 51N	0.0	0.00	596.0	976.86	60.656	2	1933	0.00920	0.00	0.00	0	134	0	5.44	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1160 QM 3430.83 QMN 3937.06 QN 506.24 1 52N TN 1166 QN 903.36 QN -0.00 QpM 1650.36 Q 1.#R
* 1 52MN TMN 1161 QMN 3987.44 QM 3370.22 QN 617.23
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	596.0	903.36	1664.3	3987.44	579.863	2	885	0.02080	0.00	0.00	0	134	0	5.44	0.00
1 53M	18.1	3.32	1682.4	3934.34	580.694	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1 54M	0.0	0.00	1682.4	3934.34	580.448	2	1259	0.00920	0.00	0.00	0	134	0	5.09	0.00
1 55O	35.7	8.33	35.7	8.33	1.785	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 56O	0.0	0.00	35.7	8.33	1.781	2	2369	0.01220	0.00	0.00	0	134	0	5.44	0.00
1 57B	40.0	9.86	118.8	16.20	4.037	0	0	0.00000	0.00	0.00	0	134	29	5.44	0.01
1 58O	0.0	0.00	35.7	6.20	1.772	2	1288	0.01250	0.00	0.00	0	134	0	5.44	0.00

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* CONFLUENCE Q'S *
* 1 59M TM 1164 QM 3823.04 QMO 3825.21 QO 2.17 1 590 TO 1193 QO 5.71 QO-
1924454074487529300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000.00 QÞM 613.77 Q 1.#R
* 1 59MO TMO 1164 QMO 3825.21 QM 3823.04 QO 2.17
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	5.71	1718.1	3825.21	581.872	2	934	0.01150	0.00	0.00	0	134	0	5.44	0.00
1 60M	21.5	3.46	1739.6	3776.50	582.819	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1 61M	0.0	0.00	1739.6	3776.50	582.356	2	1075	0.01320	0.00	0.00	0	134	0	4.92	0.00
1 62M	0.0	0.00	1739.6	3690.89	582.354	2	5	0.01000	0.00	0.00	0	134	0	4.92	0.00

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*                                                   CONFLUENCE Q'S                                                   *
* 1   63K  TK 1177 QK   653.65 QKM  2474.30 QM  1820.65       1   63M  TM 1167 QM  3690.88 QM     0.00 Q»K   158.49 Q      1.#R
*                                        1   63KM TKM 1167 QKM  3849.37 QK   158.49 QM  3690.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1739.6	3690.88	2420.4	3849.37	636.278	2	5	0.01000	0.00	0.00	0	134	0	4.92	0.00
1 64K	31.4	4.69	2451.8	3853.31	637.630	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1 65K	0.0	0.00	2451.8	3853.31	637.135	2	784	0.01050	0.00	0.00	0	134	0	4.83	0.00
1 66K	37.2	0.00	2489.0	3818.64	637.135	0	0	0.00000	0.00	0.00	0	124	30	4.74	0.01
1 67K	0.0	0.00	2489.0	3818.64	636.607	2	770	0.01080	0.00	0.00	0	124	0	4.74	0.00
1 68K	34.7	4.40	2523.7	3783.65	638.015	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 69K	0.0	0.00	2523.7	3783.65	637.206	2	992	0.01000	0.00	0.00	0	124	0	4.57	0.00
1 70K	19.1	2.33	2542.8	3719.71	637.950	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 71K	0.0	0.00	2542.8	3719.71	636.959	2	975	0.00800	0.00	0.00	0	124	0	4.39	0.00
1 72K	10.9	1.30	2553.7	3667.41	637.375	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.01
1 73K	0.0	0.00	2553.7	3667.41	636.507	2	715	0.00700	0.00	0.00	0	124	0	4.30	0.00
1 74K	24.2	2.83	2577.9	3634.84	637.412	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 75K	0.0	0.00	2577.9	3634.84	636.267	2	1168	0.01280	0.00	0.00	0	124	0	4.21	0.00
1 76P	72.8	233.01	72.8	233.01	8.603	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	72.8	233.01	8.600	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	28.14	99.3	253.99	10.131	0	0	0.00000	0.00	0.00	0	124	7	5.79	0.01
1 79P	0.0	0.00	99.3	253.99	10.124	2	1220	0.00870	0.00	0.00	0	124	0	5.79	0.00
1 80P	39.7	10.36	139.0	216.55	12.196	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1 81P	0.0	0.00	139.0	216.55	12.171	2	2419	0.01850	0.00	0.00	0	134	0	5.62	0.00
1 82Q	40.0	11.52	40.0	11.52	2.174	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1 83Q	0.0	0.00	40.0	11.52	2.173	2	1582	0.02720	0.00	0.00	0	134	0	5.79	0.00
1 84Q	40.0	11.52	80.0	20.15	4.348	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1 85Q	0.0	0.00	80.0	20.15	4.343	2	1847	0.02110	0.00	0.00	0	134	0	5.79	0.00

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*                                                   CONFLUENCE Q'S                                                   *
* 1   86P  TP 1166 QP   167.81 QPQ   182.14 QQ    14.33       1   86Q  TQ 1175 QQ    18.59 QQ-
13916834280107392000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□P    92.70 Q      1.#R
*                                        1   86PQ TPQ 1166 QPQ   182.14 QP   167.81 QQ    14.33
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	18.59	219.0	182.14	16.490	2	949	0.02000	0.00	0.00	0	134	0	5.79	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 87P	40.0	12.28	259.0	184.54	18.610	0	0	0.00000	0.00	0.00	0	134	27	5.62	0.01
1 88P	0.0	0.00	259.0	184.54	18.570	2	856	0.01150	0.00	0.00	0	134	0	5.62	0.00
1 89P	40.0	7.83	299.0	181.73	20.446	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1 90P	0.0	0.00	299.0	181.73	20.392	2	1066	0.01300	0.00	0.00	0	134	0	5.18	0.00
1 91P	40.0	7.33	339.0	177.56	22.227	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1 92P	0.0	0.00	339.0	177.56	22.131	2	1323	0.01000	0.00	0.00	0	134	0	5.09	0.00
1 93P	38.5	6.19	377.5	166.60	23.825	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1 94P	0.0	0.00	377.5	166.60	23.723	2	1231	0.00980	0.00	0.00	0	134	0	4.92	0.00
1 95P	32.9	4.41	410.4	159.22	25.133	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 96P	0.0	0.00	410.4	159.22	24.868	2	853	0.00100	0.00	0.00	0	124	0	4.83	0.00
1 97P	32.3	4.17	442.7	136.69	26.202	0	0	0.00000	0.00	0.00	0	124	30	4.65	0.01
1 98P	0.0	0.00	442.7	136.69	26.094	2	903	0.00830	0.00	0.00	0	124	0	4.65	0.00
1 99P	36.0	4.78	478.7	135.34	27.622	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 100P	0.0	0.00	478.7	135.34	27.468	2	1173	0.00770	0.00	0.00	0	124	0	4.78	0.00
1 101P	22.9	2.79	501.6	131.66	28.360	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 102P	0.0	0.00	501.6	131.66	28.268	2	832	0.01210	0.00	0.00	0	124	0	4.39	0.00
1 103P	12.6	1.47	514.2	130.64	28.739	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 104P	0.0	0.00	514.2	130.64	28.624	2	949	0.01050	0.00	0.00	0	124	0	4.21	0.00

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* CONFLUENCE Q'S *

* 1 105K TK 1175 QK 3581.17 QKP 3612.72 QP 31.55 1 105P TP 1220 QP 128.94 QP-
8025717322030737300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000.00 QÔK 637.16 Q 1.#R

* 1 105KP TKP 1175 QKP 3612.72 QK 3581.17 QP 31.55

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	514.2	128.94	3092.1	3612.72	664.886	2	5	0.01000	0.00	0.00	0	124	0	4.21	0.00
1 106K	32.1	3.68	3124.2	3615.11	666.063	0	0	0.00000	0.00	0.00	0	124	30	4.13	0.01
1 107K	0.0	0.00	3124.2	3615.11	664.983	2	913	0.01100	0.00	0.00	0	124	0	4.13	0.00
1 108K	37.7	4.23	3161.9	3594.53	666.335	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 109K	0.0	0.00	3161.9	3594.53	664.943	2	1081	0.01000	0.00	0.00	0	124	0	4.04	0.00
1 110K	39.4	4.22	3201.3	3550.06	666.293	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 111K	0.0	0.00	3201.3	3550.06	665.030	2	1044	0.01240	0.00	0.00	0	124	0	3.86	0.00
1 112K	39.8	4.08	3241.1	3521.44	666.334	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 113K	0.0	0.00	3241.1	3521.44	664.876	2	1121	0.01110	0.00	0.00	0	124	0	3.69	0.00
1 114K	40.0	3.90	3281.1	3487.91	666.122	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 115K	0.0	0.00	3281.1	3487.91	664.741	2	960	0.00950	0.00	0.00	0	124	0	3.51	0.00
1 116K	39.8	3.69	3320.9	3452.93	665.921	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1 117K	0.0	0.00	3320.9	3452.93	664.616	2	919	0.00990	0.00	0.00	0	124	0	3.34	0.00
1 118K	39.8	3.49	3360.7	3428.47	665.732	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.01
1 119K	0.0	0.00	3360.7	3428.47	664.908	2	835	0.01980	0.00	0.00	0	134	0	3.16	0.00
1 120K	22.4	1.91	3383.1	3412.86	665.519	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.01
1 121K	0.0	0.00	3383.1	3412.86	663.893	2	1042	0.00770	0.00	0.00	0	134	0	3.07	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 122R	21.6	2.98	21.6	2.98	0.910	0	0	0.00000	0.00	0.00	0	134	30	4.74	0.01
1 123R	0.0	0.00	21.6	2.98	0.909	2	1940	0.01230	0.00	0.00	0	134	0	4.74	0.00
1 124R	32.5	4.19	54.1	5.92	2.250	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1 125R	0.0	0.00	54.1	5.92	2.248	2	1189	0.01320	0.00	0.00	0	134	0	4.65	0.00
1 126R	23.9	3.03	78.0	8.15	3.218	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 127R	0.0	0.00	78.0	8.15	3.214	2	803	0.01280	0.00	0.00	0	134	0	4.57	0.00
1 128R	28.8	3.72	106.8	11.04	4.402	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1 129R	0.0	0.00	106.8	11.04	4.392	2	966	0.01040	0.00	0.00	0	134	0	4.65	0.00
1 130R	29.3	3.57	136.1	13.42	5.534	0	0	0.00000	0.00	0.00	0	134	30	4.39	0.01
1 131R	0.0	0.00	136.1	13.42	5.520	2	795	0.00960	0.00	0.00	0	134	0	4.39	0.00
1 132R	27.5	3.28	163.6	15.41	6.570	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1 133R	0.0	0.00	163.6	15.41	6.554	2	759	0.01050	0.00	0.00	0	134	0	4.30	0.00
1 134R	27.3	3.19	190.9	17.23	7.574	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1 135R	0.0	0.00	190.9	17.23	7.554	2	740	0.00980	0.00	0.00	0	134	0	4.21	0.00
1 136R	29.4	3.37	220.3	19.02	8.632	0	0	0.00000	0.00	0.00	0	134	30	4.13	0.01
1 137R	0.0	0.00	220.3	19.02	8.604	2	849	0.01000	0.00	0.00	0	134	0	4.13	0.00
1 138R	36.9	4.14	257.2	21.11	9.927	0	0	0.00000	0.00	0.00	0	134	30	4.04	0.01
1 139R	0.0	0.00	257.2	21.11	9.889	2	960	0.01020	0.00	0.00	0	134	0	4.04	0.00
1 140R	27.6	2.96	284.8	22.23	10.835	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 141R	0.0	0.00	284.8	22.23	10.807	2	705	0.01250	0.00	0.00	0	134	0	3.86	0.00
1 142R	36.0	3.69	320.8	24.03	11.986	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1 143R	0.0	0.00	320.8	24.03	11.938	2	966	0.01040	0.00	0.00	0	134	0	3.69	0.00
1 144R	39.6	3.76	360.4	25.46	13.141	0	0	0.00000	0.00	0.00	0	134	30	3.42	0.01
1 145R	0.0	0.00	360.4	25.46	13.076	2	1078	0.00940	0.00	0.00	0	134	0	3.42	0.00
1 146R	27.4	2.40	387.8	25.80	13.845	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.01
1 147R	0.0	0.00	387.8	25.80	13.808	2	693	0.01440	0.00	0.00	0	134	0	3.16	0.00
1 148R	27.6	2.42	415.4	26.46	14.582	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.01
1 149R	0.0	0.00	415.4	26.46	14.491	2	1266	0.00970	0.00	0.00	0	134	0	3.16	0.00
1 150R	20.7	1.76	436.1	26.76	15.055	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.01
1 151R	0.0	0.00	436.1	26.76	14.943	2	1379	0.00960	0.00	0.00	0	134	0	3.07	0.00

```
*                                                    CONFLUENCE Q'S                                                    *
* 1  152K  TK 1188 QK  3375.05 QKR  3399.20 QR    24.16       1  152R  TR 1209 QR    26.61 QR-
52505543970718318000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000.00 Q/K  1690.44 Q      1.#R
*                                       1  152KR TKR 1188 QKR  3399.20 QK  3375.05 QR    24.16
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	26.61	3819.2	3399.20	677.007	2	1212	0.00830	0.00	0.00	0	134	0	3.07	0.00
1 153K	38.8	3.22	3858.0	3354.02	678.037	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1 154K	0.0	0.00	3858.0	3354.02	674.998	2	2066	0.00970	0.00	0.00	0	134	0	2.99	0.00
1 155K	27.3	2.20	3885.3	3251.15	675.701	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 156K	0.0	0.00	3885.3	3251.15	673.018	2	1710	0.00880	0.00	0.00	0	134	0	2.90	0.00
1 157K	22.1	1.72	3907.4	3186.37	673.569	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 158K	0.0	0.00	3907.4	3186.37	670.857	2	1697	0.00870	0.00	0.00	0	134	0	2.81	0.00
1 159S	39.3	3.16	39.3	3.16	1.012	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1 160S	0.0	0.00	39.3	3.16	1.010	2	2302	0.01100	0.00	0.00	0	134	0	2.90	0.00
1 161S	36.7	2.86	76.0	4.65	1.925	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 162S	0.0	0.00	76.0	4.65	1.915	2	2012	0.01210	0.00	0.00	0	134	0	2.81	0.00
1 163T	16.1	1.34	16.1	1.34	0.427	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1 164T	0.0	0.00	16.1	1.34	0.426	2	1839	0.00880	0.00	0.00	0	134	0	2.99	0.00
1 165T	28.5	2.37	44.6	2.95	1.182	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1 166T	0.0	0.00	44.6	2.95	1.182	2	887	0.01190	0.00	0.00	0	134	0	2.99	0.00
1 167T	38.0	2.96	82.6	5.56	2.130	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 168T	0.0	0.00	82.6	5.56	2.128	2	1078	0.00880	0.00	0.00	0	134	0	2.81	0.00
1 169T	39.8	3.10	122.4	7.78	3.121	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 170T	0.0	0.00	122.4	7.78	3.111	2	1337	0.01200	0.00	0.00	0	134	0	2.81	0.00
1 171T	29.2	2.28	151.6	8.88	3.839	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 172T	0.0	0.00	151.6	8.88	3.808	2	1813	0.00980	0.00	0.00	0	134	0	2.81	0.00
1 173KS	76.0	4.33	3983.4	3134.36	672.771	0	0	0.00000	0.00	0.00	0	134	0	2.81	0.00

```
**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  174K  TK 1201 QK  3134.36 QKT  3142.47 QT     8.11       1  174T  TT 1194 QT     8.28 QT    -0.00 QUK  1759.80 Q      1.#R
*                                      1  174KT TKT 1201 QKT  3142.47 QK  3134.36 QT     8.11
**********************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	8.28	4135.0	3142.47	674.864	2	1115	0.00920	0.00	0.00	0	134	0	2.81	0.00
1 175K	28.5	2.22	4163.5	3123.75	675.575	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 176K	0.0	0.00	4163.5	3123.75	672.467	2	1834	0.00810	0.00	0.00	0	134	0	2.81	0.00
1 177U	29.4	2.29	29.4	2.29	0.733	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 178U	29.1	2.33	58.5	4.63	1.480	0	0	0.00000	0.00	0.00	0	134	30	2.89	0.01
1 179U	0.0	0.00	58.5	4.63	1.469	2	3079	0.00820	0.00	0.00	0	134	0	2.89	0.00
1 180U	31.8	2.48	90.3	4.60	2.262	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 181U	0.0	0.00	90.3	4.60	2.238	2	2207	0.01120	0.00	0.00	0	134	0	2.81	0.00
1 182U	21.3	1.66	111.6	4.94	2.770	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 183U	0.0	0.00	111.6	4.94	2.722	2	2448	0.00810	0.00	0.00	0	134	0	2.81	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1  184K  TK 1207 QK  3057.00 QKU  3061.48 QU     4.48       1  184U  TU 1222 QU     4.55 QU-
1049669956512030300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000.00 Q□K  2110.00 Q      1.#R
*                                      1  184KU TKU 1207 QKU  3061.48 QK  3057.00 QU     4.48
**********************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	4.55	4275.1	3061.48	675.181	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinV.lac Run date: Wed Sep 23 10:20:52 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	1.86	23.8	1.86	0.594	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	2V	0.0	0.00	23.8	1.86	0.593	2	1412	0.01030	0.00	0.00	0	134	0	2.81	0.00
1	3V	39.4	3.07	63.2	4.26	1.575	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	4V	0.0	0.00	63.2	4.26	1.575	2	1046	0.01150	0.00	0.00	0	134	0	2.81	0.00
1	5V	39.9	3.11	103.1	6.70	2.570	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	6V	0.0	0.00	103.1	6.70	2.568	2	892	0.01000	0.00	0.00	0	134	0	2.81	0.00
1	7V	40.0	3.12	143.1	9.02	3.566	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	8V	0.0	0.00	143.1	9.02	3.558	2	964	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\BasinW.lac Run date: Wed Sep 23 10:37:29 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	3.06	24.1	3.06	0.978	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	2B	27.6	2.15	27.6	2.15	0.689	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	2W	0.0	0.00	24.1	3.06	0.977	2	1848	0.01050	0.00	0.00	0	134	0	2.81	0.00
1	3W	22.3	2.72	46.4	4.71	1.846	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	4B	15.1	1.25	42.7	3.41	1.089	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	4W	0.0	0.00	46.4	4.71	1.844	2	1007	0.01070	0.00	0.00	0	134	0	2.99	0.00
1	5W	26.9	3.14	73.3	6.94	2.849	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1	6W	0.0	0.00	73.3	6.94	2.841	2	1111	0.00990	0.00	0.00	0	124	0	4.21	0.00
1	7W	24.7	2.77	98.0	8.75	3.727	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1	8W	0.0	0.00	98.0	8.75	3.709	2	1118	0.00710	0.00	0.00	0	124	0	4.04	0.00
1	9W	35.1	3.76	133.1	10.68	4.912	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1	10W	0.0	0.00	133.1	10.68	4.886	2	1301	0.01000	0.00	0.00	0	124	0	3.86	0.00
1	11W	24.8	2.60	157.9	11.64	5.718	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.01
1	12W	0.0	0.00	157.9	11.64	5.695	2	779	0.00750	0.00	0.00	0	124	0	3.78	0.00
1	13W	36.2	3.71	194.1	13.63	6.881	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1	14W	0.0	0.00	194.1	13.63	6.858	2	915	0.01440	0.00	0.00	0	124	0	3.69	0.00
1	15W	33.0	3.22	227.1	15.59	7.887	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1	16W	0.0	0.00	227.1	15.59	7.864	2	796	0.01390	0.00	0.00	0	124	0	3.51	0.00
1	17W	39.5	3.66	266.6	18.00	9.035	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1	18W	0.0	0.00	266.6	18.00	9.004	2	930	0.01200	0.00	0.00	0	124	0	3.34	0.00
1	19W	32.8	2.88	299.4	19.70	9.924	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	20W	0.0	0.00	299.4	19.70	9.890	2	774	0.00940	0.00	0.00	0	124	0	3.16	0.00
1	21W	35.4	3.11	334.8	21.34	10.883	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	22W	0.0	0.00	334.8	21.34	10.825	2	1066	0.00820	0.00	0.00	0	124	0	3.16	0.00
1	23W	19.1	1.63	353.9	21.43	11.346	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.01
1	24W	0.0	0.00	353.9	21.43	11.284	2	860	0.00630	0.00	0.00	0	134	0	3.07	0.00
1	25W	11.4	0.97	365.3	21.46	11.595	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.01
1	26W	0.0	0.00	365.3	21.46	11.543	2	684	0.00730	0.00	0.00	0	134	0	3.07	0.00
1	27W	22.7	1.88	388.0	21.82	12.145	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	28W	0.0	0.00	388.0	21.82	12.008	2	1949	0.01030	0.00	0.00	0	134	0	2.99	0.00
1	29X	7.3	0.64	7.3	0.64	0.205	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	30X	0.0	0.00	7.3	0.64	0.105	2	1088	0.00760	0.00	0.00	0	124	0	3.16	0.00
1	31X	23.1	1.97	30.4	2.30	0.735	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	32X	0.0	0.00	30.4	2.30	0.733	2	882	0.01350	0.00	0.00	0	124	0	3.07	0.00
1	33X	13.0	1.08	43.4	3.19	1.079	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	34X	0.0	0.00	43.4	3.19	1.077	2	429	0.01290	0.00	0.00	0	124	0	2.99	0.00
1	35X	18.5	1.54	61.9	4.49	1.568	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	36X	0.0	0.00	61.9	4.49	1.568	2	1115	0.01280	0.00	0.00	0	124	0	2.99	0.00
1	37WX	61.9	4.35	449.9	23.61	13.526	2	642	0.00980	0.00	0.00	0	124	0	2.99	0.00
1	38W	19.2	1.55	469.1	23.88	14.020	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	39W	0.0	0.00	469.1	23.88	13.897	2	1430	0.00960	0.00	0.00	0	124	0	2.90	0.00
1	40Y	6.4	0.56	6.4	0.56	0.180	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	41Y	0.0	0.00	6.4	0.56	0.079	2	970	0.00890	0.00	0.00	0	124	0	3.16	0.00
1	42Y	11.2	0.98	17.6	1.35	0.394	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	43Y	0.0	0.00	17.6	1.35	0.341	2	831	0.01140	0.00	0.00	0	124	0	3.16	0.00
1	44Y	15.6	1.33	33.2	2.43	0.766	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	45Y	0.0	0.00	33.2	2.43	0.764	2	883	0.01070	0.00	0.00	0	124	0	3.07	0.00
1	46Y	9.5	0.79	42.7	2.95	1.016	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	47Y	0.0	0.00	42.7	2.95	1.015	2	390	0.01680	0.00	0.00	0	124	0	2.99	0.00
1	48Y	13.1	1.05	55.8	3.75	1.352	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1	49Y	0.0	0.00	55.8	3.75	1.350	2	658	0.01670	0.00	0.00	0	124	0	2.90	0.00
1	50Y	24.4	1.96	80.2	5.25	1.978	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.01
1	51Y	0.0	0.00	80.2	5.25	1.977	2	1416	0.01050	0.00	0.00	0	124	0	2.90	0.00
1	52WY	80.2	5.03	549.3	26.59	15.700	2	1623	0.00800	0.00	0.00	0	124	0	2.90	0.00
1	53Z	12.8	1.25	12.8	1.25	0.399	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1	54Z	0.0	0.00	12.8	1.25	0.397	2	1273	0.01320	0.00	0.00	0	124	0	3.51	0.00
1	55Z	24.9	2.36	37.7	3.21	1.153	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1	56Z	0.0	0.00	37.7	3.21	1.152	2	1086	0.01170	0.00	0.00	0	124	0	3.42	0.00
1	57Z	25.8	2.33	63.5	4.99	1.897	0	0	0.00000	0.00	0.00	0	124	30	3.25	0.01
1	58Z	0.0	0.00	63.5	4.99	1.896	2	863	0.01350	0.00	0.00	0	124	0	3.25	0.00
1	59Z	30.1	2.64	93.6	7.02	2.740	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	60Z	0.0	0.00	93.6	7.02	2.739	2	922	0.01230	0.00	0.00	0	124	0	3.16	0.00
1	61Z	28.0	2.39	121.6	8.65	3.502	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	62Z	0.0	0.00	121.6	8.65	3.493	2	907	0.01020	0.00	0.00	0	124	0	3.07	0.00
1	63Z	32.7	2.79	154.3	10.32	4.384	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	64Z	0.0	0.00	154.3	10.32	4.369	2	1048	0.01130	0.00	0.00	0	124	0	3.07	0.00
1	65Z	25.7	2.13	180.0	11.25	5.052	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	66Z	0.0	0.00	180.0	11.25	5.033	2	1003	0.01240	0.00	0.00	0	134	0	2.99	0.00
1	67Z	9.1	0.76	189.1	11.28	5.275	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1	68Z	0.0	0.00	189.1	11.28	5.266	2	399	0.01470	0.00	0.00	0	134	0	2.99	0.00
1	69Z	24.4	1.96	213.5	12.04	5.894	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1	70Z	0.0	0.00	213.5	12.04	5.868	2	1072	0.01280	0.00	0.00	0	134	0	2.90	0.00
1	71Z	27.0	2.11	240.5	12.55	6.542	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	72Z	0.0	0.00	240.5	12.55	6.494	2	1351	0.00920	0.00	0.00	0	134	0	2.81	0.00
1	73WZ	240.5	12.36	789.8	37.56	22.193	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\Basin100A.lac Run date: Wed Sep 23 10:49:05 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.80	8.2	0.80	0.256	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 102A	0.0	0.00	8.2	0.80	0.168	2	1080	0.01170	0.00	0.00	0	124	0	3.51	0.00
1 103A	17.4	1.61	25.6	2.16	0.684	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1 104A	0.0	0.00	25.6	2.16	0.683	2	846	0.01260	0.00	0.00	0	124	0	3.34	0.00
1 105A	18.4	1.66	44.0	3.52	1.213	0	0	0.00000	0.00	0.00	0	124	30	3.25	0.01
1 106A	0.0	0.00	44.0	3.52	1.213	2	782	0.01420	0.00	0.00	0	124	0	3.25	0.00
1 107A	24.3	2.13	68.3	5.24	1.895	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 108A	0.0	0.00	68.3	5.24	1.894	2	822	0.01180	0.00	0.00	0	124	0	3.16	0.00
1 109A	21.0	1.84	89.3	6.56	2.484	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 110A	0.0	0.00	89.3	6.56	2.483	2	717	0.01020	0.00	0.00	0	124	0	3.16	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Existing Conditions\Q25\Basin100B.lac   Run date: Thu Sep 24 14:40:18 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	4.10	30.0	4.10	1.310	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1 14B	22.1	3.79	52.1	7.88	2.302	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 20B	38.7	5.47	90.8	13.35	4.051	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1 21B	11.2	2.05	102.0	15.40	4.565	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1 28B	24.5	5.72	126.5	21.12	5.790	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 29B	7.6	1.15	134.1	22.27	6.157	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1 35B	15.5	2.75	149.6	25.01	6.946	0	0	0.00000	0.00	0.00	0	124	30	5.71	0.01
1 36B	29.0	5.38	178.6	30.39	8.447	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 100B	67.1	239.25	245.7	266.67	16.388	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	266.67	16.390	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	5.32	271.7	267.03	17.785	0	0	0.00000	0.00	0.00	0	124	30	5.97	0.01
1 103B	0.0	0.00	271.7	267.03	17.784	2	1058	0.04570	0.00	0.00	0	124	0	5.97	0.00
1 104B	24.8	4.60	296.5	259.60	19.068	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 105B	0.0	0.00	296.5	259.60	19.056	2	1470	0.02950	0.00	0.00	0	124	0	5.79	0.00
1 106B	18.1	3.04	314.6	233.17	19.962	0	0	0.00000	0.00	0.00	0	124	30	5.62	0.01
1 107B	0.0	0.00	314.6	233.17	19.952	2	959	0.01820	0.00	0.00	0	124	0	5.62	0.00
1 108C	634.2	1321.15	634.2	1321.15	74.347	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	634.2	1321.15	74.415	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	7.74	673.9	1312.51	76.507	0	0	0.00000	0.00	0.00	0	124	30	5.88	0.01
1 111C	0.0	0.00	673.9	1312.51	76.500	2	1568	0.03970	0.00	0.00	0	124	0	5.88	0.00
1 112D	37.7	7.35	37.7	7.35	1.987	0	0	0.00000	0.00	0.00	0	124	30	5.88	0.01
1 113D	0.0	0.00	37.7	7.35	1.986	2	2150	0.02780	0.00	0.00	0	124	0	5.88	0.00

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*                                                    CONFLUENCE Q'S                                                      *
* 1  114C  TC 1159 QC  1298.64 QCD  1302.43 QD     3.79       1  114D  TD 1172 QD     6.40 QD-
691700767903075640000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000.00 QøC   262.60 Q      1.#R
*                                        1  114CD TCD 1159 QCD  1302.43 QC  1298.64 QD     3.79
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	6.40	711.6	1302.43	78.511	2	1532	0.02480	0.00	0.00	0	124	0	5.88	0.00
1 115C	12.0	2.02	723.6	1284.96	79.111	0	0	0.00000	0.00	0.00	0	124	30	5.62	0.01
1 116C	0.0	0.00	723.6	1284.96	79.062	2	949	0.01960	0.00	0.00	0	124	0	5.62	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   215.38 QBC  1480.84 QC  1265.46       1  117C  TC 1163 QC  1274.05 QC-
4377134810717196000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000.00 QxB   206.32 Q      1.#R
*                                        1  117BC TBC 1162 QBC  1480.84 QB   215.38 QC  1265.46
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	723.6	1274.05	1038.2	1480.84	98.939	2	1210	0.01230	0.00	0.00	0	124	0	5.62	0.00
1 118B	34.1	4.99	1072.3	1457.05	100.535	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1 119B	0.0	0.00	1072.3	1457.05	100.417	2	944	0.01350	0.00	0.00	0	124	0	5.27	0.00
1 120E	31.1	5.77	31.1	5.77	1.610	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 121E	0.0	0.00	31.1	5.77	1.610	2	2049	0.03100	0.00	0.00	0	124	0	5.79	0.00
1 122E	18.9	3.35	50.0	7.78	2.572	0	0	0.00000	0.00	0.00	0	124	30	5.71	0.01
1 123E	0.0	0.00	50.0	7.78	2.571	2	866	0.03040	0.00	0.00	0	124	0	5.71	0.00
1 124E	37.4	9.24	87.4	15.00	4.482	0	0	0.00000	0.00	0.00	0	134	30	5.53	0.01
1 125E	0.0	0.00	87.4	15.00	4.474	2	1753	0.01750	0.00	0.00	0	134	0	5.53	0.00
1 126E	21.3	4.72	108.7	16.84	5.518	0	0	0.00000	0.00	0.00	0	134	30	5.36	0.01
1 127E	0.0	0.00	108.7	16.84	5.508	2	919	0.01770	0.00	0.00	0	134	0	5.36	0.00
1 128E	16.6	3.46	125.3	18.52	6.304	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1 129E	0.0	0.00	125.3	18.52	6.289	2	904	0.01440	0.00	0.00	0	134	0	5.27	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  130B  TB 1167 QB  1438.36 QBE  1452.21 QE    13.85       1  130E  TE 1182 QE    18.31 QE    -0.00 Q»B   414.42 Q      1.#R
*                                        1  130BE TBE 1167 QBE  1452.21 QB  1438.36 QE    13.85
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	18.31	1197.6	1452.21	106.544	2	1100	0.01140	0.00	0.00	0	134	0	5.27	0.00
1 131F	13.6	7.38	13.6	7.38	0.775	0	0	0.00000	0.00	0.00	0	134	18	5.71	0.01
1 132F	0.0	0.00	13.6	7.38	0.774	2	906	0.03180	0.00	0.00	0	134	0	5.71	0.00
1 133F	26.6	6.94	40.2	13.36	2.163	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1 134F	0.0	0.00	40.2	13.36	2.162	2	1224	0.02140	0.00	0.00	0	134	0	5.62	0.00
1 135F	37.2	8.68	77.4	18.97	4.022	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 136F	0.0	0.00	77.4	18.97	4.018	2	1787	0.01630	0.00	0.00	0	134	0	5.44	0.00
1 137F	24.5	5.11	101.9	19.79	5.193	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1 138F	0.0	0.00	101.9	19.79	5.186	2	979	0.01940	0.00	0.00	0	134	0	5.27	0.00
1 139F	14.3	2.80	116.2	20.51	5.856	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1 140F	0.0	0.00	116.2	20.51	5.845	2	790	0.01440	0.00	0.00	0	134	0	5.18	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  141B  TB 1169 QB  1426.91 QBF  1440.57 QF    13.66       1  141F  TF 1186 QF    20.07 QF    -0.00 QAB   403.14 Q      1.#R
*                                        1  141BF TBF 1169 QBF  1440.57 QB  1426.91 QF    13.66
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B EXISTING CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	20.07	1313.8	1440.57	112.132	2	1041	0.00840	0.00	0.00	0	134	0	5.18	0.00
1 142B	27.0	3.62	1340.8	1411.67	113.290	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 143B	0.0	0.00	1340.8	1411.67	113.067	2	872	0.01000	0.00	0.00	0	124	0	4.83	0.00
1 144B	24.7	3.19	1365.5	1397.14	114.087	0	0	0.00000	0.00	0.00	0	124	30	4.65	0.01
1 145B	0.0	0.00	1365.5	1397.14	113.775	2	1127	0.01000	0.00	0.00	0	124	0	4.65	0.00
1 146B	26.0	3.23	1391.5	1370.20	114.809	0	0	0.00000	0.00	0.00	0	124	30	4.48	0.01
1 147B	0.0	0.00	1391.5	1370.20	114.465	2	1083	0.00870	0.00	0.00	0	124	0	4.48	0.00
1 148B	22.6	2.70	1414.1	1343.49	115.328	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.01
1 149B	0.0	0.00	1414.1	1343.49	115.004	2	872	0.00640	0.00	0.00	0	124	0	4.30	0.00
1 150B	28.5	3.20	1442.6	1317.40	116.027	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 151B	0.0	0.00	1442.6	1317.40	115.571	2	1358	0.01000	0.00	0.00	0	124	0	4.04	0.00
1 152B	23.4	2.51	1466.0	1280.66	116.373	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 153B	0.0	0.00	1466.0	1280.66	115.948	2	1217	0.00940	0.00	0.00	0	124	0	3.86	0.00
1 154B	20.9	2.14	1486.9	1249.78	116.633	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 155B	0.0	0.00	1486.9	1249.78	116.380	2	807	0.01170	0.00	0.00	0	124	0	3.69	0.00
1 156B	26.1	2.61	1513.0	1238.54	117.214	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.01
1 157B	0.0	0.00	1513.0	1238.54	116.932	2	966	0.01090	0.00	0.00	0	124	0	3.60	0.00
1 158B	26.4	2.57	1539.4	1226.17	117.755	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 159B	0.0	0.00	1539.4	1226.17	117.454	2	973	0.01030	0.00	0.00	0	124	0	3.51	0.00
1 160B	29.7	2.82	1569.1	1211.55	118.356	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1 161B	0.0	0.00	1569.1	1211.55	117.966	2	1044	0.00880	0.00	0.00	0	124	0	3.42	0.00
1 162B	27.9	2.59	1597.0	1187.85	118.793	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1 163B	0.0	0.00	1597.0	1187.85	118.398	2	1101	0.01000	0.00	0.00	0	124	0	3.34	0.00
1 164B	25.2	2.34	1622.2	1164.46	119.145	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1 165B	0.0	0.00	1622.2	1164.46	118.767	2	1034	0.00970	0.00	0.00	0	124	0	3.34	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinA.lac Run date: Thu Sep 24 08:32:12 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	1.81	40.0	1.81	0.579	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1	2A	0.0	0.00	40.0	1.81	0.577	2	2398	0.00920	0.00	0.00	0	124	0	1.63	0.00
1	3A	39.8	1.62	79.8	2.42	1.097	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.01
1	4A	0.0	0.00	79.8	2.42	1.093	2	1498	0.00970	0.00	0.00	0	124	0	1.47	0.00
1	5A	38.3	1.48	118.1	3.28	1.566	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	6A	0.0	0.00	118.1	3.28	1.558	2	1253	0.00910	0.00	0.00	0	124	0	1.39	0.00
1	7A	32.4	1.21	150.5	3.81	1.946	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	8A	0.0	0.00	150.5	3.81	1.936	2	1114	0.01010	0.00	0.00	0	124	0	1.35	0.00
1	9A	27.7	1.01	178.2	4.17	2.260	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	10A	0.0	0.00	178.2	4.17	2.242	2	1242	0.00870	0.00	0.00	0	124	0	1.32	0.00
1	11A	33.9	1.79	212.1	4.88	2.816	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.07
1	12A	0.0	0.00	212.1	4.88	2.792	2	1469	0.00990	0.00	0.00	0	124	0	1.32	0.00
1	13A	38.9	2.30	251.0	6.08	3.529	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1	14A	0.0	0.00	251.0	6.08	3.504	2	1177	0.00870	0.00	0.00	0	134	0	1.28	0.00
1	15A	38.3	2.20	289.3	7.32	4.207	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1	16A	0.0	0.00	289.3	7.32	4.184	2	994	0.01040	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinB.lac Run date: Thu Sep 24 08:43:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	1.35	22.1	1.35	0.432	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.10
1	2B	0.0	0.00	22.1	1.35	0.430	2	2664	0.00930	0.00	0.00	0	124	0	1.32	0.00
1	3B	39.9	2.29	62.0	2.79	1.162	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.10
1	4B	0.0	0.00	62.0	2.79	1.161	2	1443	0.01240	0.00	0.00	0	124	0	1.24	0.00
1	5B	39.0	1.64	101.0	3.92	1.685	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.04
1	6B	0.0	0.00	101.0	3.92	1.683	2	732	0.01030	0.00	0.00	0	124	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinC.lac Run date: Tue Sep 29 14:13:28 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	1.19	17.8	1.19	0.379	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1	2C	0.0	0.00	17.8	1.19	0.377	2	1591	0.02010	0.00	0.00	0	124	0	2.40	0.00
1	3C	15.5	1.00	33.3	1.89	0.697	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1	4C	0.0	0.00	33.3	1.89	0.695	2	1045	0.01800	0.00	0.00	0	124	0	2.32	0.00
1	5C	29.5	1.83	62.8	3.29	1.281	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1	6C	0.0	0.00	62.8	3.29	1.281	2	1347	0.01730	0.00	0.00	0	124	0	2.24	0.00
1	7C	25.1	1.54	87.9	4.32	1.773	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1	8C	0.0	0.00	87.9	4.32	1.772	2	1037	0.01750	0.00	0.00	0	124	0	2.21	0.00
1	9C	20.7	1.25	108.6	5.07	2.171	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1	10C	0.0	0.00	108.6	5.07	2.168	2	733	0.01640	0.00	0.00	0	124	0	2.17	0.00
1	11C	25.8	1.53	134.4	6.03	2.656	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1	12C	0.0	0.00	134.4	6.03	2.651	2	713	0.01620	0.00	0.00	0	124	0	2.13	0.00
1	13C	31.9	1.89	166.3	7.28	3.255	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1	14C	0.0	0.00	166.3	7.28	3.246	2	939	0.01560	0.00	0.00	0	124	0	2.13	0.00
1	15C	34.6	2.01	200.9	8.54	3.888	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1	16C	0.0	0.00	200.9	8.54	3.876	2	903	0.01260	0.00	0.00	0	124	0	2.09	0.00
1	17C	32.8	1.83	233.7	9.55	4.462	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1	18C	0.0	0.00	233.7	9.55	4.444	2	1112	0.01420	0.00	0.00	0	124	0	2.01	0.00
1	19C	23.2	1.25	256.9	9.89	4.843	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1	20C	0.0	0.00	256.9	9.89	4.818	2	1160	0.01210	0.00	0.00	0	124	0	1.94	0.00
1	21C	29.7	1.50	286.6	10.11	5.298	0	0	0.00000	0.00	0.00	0	124	30	1.82	0.01
1	22C	0.0	0.00	286.6	10.11	5.255	2	1549	0.01130	0.00	0.00	0	124	0	1.82	0.00
1	23C	35.4	1.60	322.0	10.32	5.767	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1	24C	0.0	0.00	322.0	10.32	5.697	2	1993	0.01060	0.00	0.00	0	124	0	1.63	0.00
1	25C	28.1	1.18	350.1	10.33	6.074	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1	26C	0.0	0.00	350.1	10.33	6.042	2	765	0.00890	0.00	0.00	0	124	0	1.51	0.00
1	27C	35.0	1.35	385.1	10.54	6.473	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1	28C	0.0	0.00	385.1	10.54	6.379	2	1922	0.00820	0.00	0.00	0	124	0	1.39	0.00
1	29C	34.0	1.27	419.1	10.55	6.786	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1	30C	0.0	0.00	419.1	10.55	6.716	2	1457	0.01040	0.00	0.00	0	124	0	1.35	0.00
1	31C	29.3	1.07	448.4	10.63	7.059	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1	32C	0.0	0.00	448.4	10.63	6.993	2	1251	0.01080	0.00	0.00	0	124	0	1.32	0.00
1	33C	35.6	1.92	484.0	10.85	7.607	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.08
1	34C	0.0	0.00	484.0	10.85	7.488	2	2107	0.01100	0.00	0.00	0	124	0	1.28	0.00
1	35D	16.7	0.93	16.7	0.93	0.298	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	36D	0.0	0.00	16.7	0.93	0.233	2	1299	0.01300	0.00	0.00	0	134	0	2.01	0.00
1	37D	29.0	1.56	45.7	2.18	0.733	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1	38D	0.0	0.00	45.7	2.18	0.731	2	1308	0.01380	0.00	0.00	0	124	0	1.94	0.00
1	39D	29.9	1.54	75.6	3.25	1.225	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1	40D	0.0	0.00	75.6	3.25	1.224	2	1530	0.01050	0.00	0.00	0	124	0	1.86	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.03	97.0	3.53	1.555	0	0	0.00000	0.00	0.00	0	124	30	1.74	0.01
1 42D	0.0	0.00	97.0	3.53	1.550	2	1185	0.01070	0.00	0.00	0	124	0	1.74	0.00
1 43D	26.1	1.18	123.1	3.85	1.927	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 44D	0.0	0.00	123.1	3.85	1.915	2	1524	0.01060	0.00	0.00	0	124	0	1.63	0.00
1 45D	30.2	1.30	153.3	4.18	2.331	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 46D	0.0	0.00	153.3	4.18	2.307	2	1697	0.00840	0.00	0.00	0	124	0	1.55	0.00
1 47D	30.2	1.17	183.5	4.24	2.680	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 48D	0.0	0.00	183.5	4.24	2.659	2	1239	0.00990	0.00	0.00	0	124	0	1.39	0.00
1 49D	39.0	1.46	222.5	4.86	3.127	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1 50D	0.0	0.00	222.5	4.86	3.094	2	1500	0.00870	0.00	0.00	0	124	0	1.35	0.00
1 51D	31.8	1.51	254.3	5.41	3.577	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.05
1 52D	0.0	0.00	254.3	5.41	3.549	2	1258	0.01140	0.00	0.00	0	124	0	1.32	0.00
1 53D	23.0	1.40	277.3	6.02	3.998	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.10
1 54D	0.0	0.00	277.3	6.02	3.962	2	1118	0.00760	0.00	0.00	0	124	0	1.32	0.00
1 55D	14.6	0.86	291.9	6.15	4.239	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.10
1 56D	0.0	0.00	291.9	6.15	4.197	2	1256	0.00990	0.00	0.00	0	124	0	1.28	0.00

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*****************************************************************************************************************
*                                                   CONFLUENCE Q'S                                              *
* 1   57C  TC 1287 QC    10.73 QCD    15.74 QD     5.01       1   57D  TD 1199 QD     6.04 QD    -0.00 Q6C     8.70 Q_     0.00
*                                        1   57CD TCD 1284 QCD    15.76 QC    10.72 QD     5.04
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	6.04	775.9	15.76	11.683	2	5	0.00100	0.00	0.00	0	124	0	1.28	0.00
1 58E	12.6	0.75	12.6	0.75	0.239	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.10
1 59E	0.0	0.00	12.6	0.75	0.145	2	1440	0.01150	0.00	0.00	0	124	0	1.28	0.00
1 60E	28.7	1.65	41.3	2.05	0.672	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.10
1 61E	0.0	0.00	41.3	2.05	0.670	2	3334	0.01150	0.00	0.00	0	124	0	1.24	0.00
1 62F	16.5	1.08	16.5	1.08	0.346	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.01
1 63F	0.0	0.00	16.5	1.08	0.320	2	1673	0.02100	0.00	0.00	0	124	0	2.36	0.00
1 64F	24.0	1.55	40.5	2.28	0.814	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1 65F	0.0	0.00	40.5	2.28	0.813	2	955	0.02000	0.00	0.00	0	124	0	2.32	0.00
1 66F	33.9	2.11	74.4	4.05	1.487	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1 67F	0.0	0.00	74.4	4.05	1.486	2	1251	0.01830	0.00	0.00	0	124	0	2.24	0.00
1 68F	29.6	1.82	104.0	5.36	2.067	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1 69F	0.0	0.00	104.0	5.36	2.066	2	1122	0.01740	0.00	0.00	0	124	0	2.21	0.00
1 70F	25.9	1.56	129.9	6.29	2.565	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1 71F	0.0	0.00	129.9	6.29	2.563	2	874	0.01460	0.00	0.00	0	124	0	2.17	0.00
1 72F	26.7	1.58	156.6	7.13	3.068	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 73F	0.0	0.00	156.6	7.13	3.061	2	907	0.01500	0.00	0.00	0	124	0	2.13	0.00
1 74F	29.9	1.73	186.5	7.97	3.616	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1 75F	0.0	0.00	186.5	7.97	3.606	2	876	0.01400	0.00	0.00	0	124	0	2.09	0.00
1 76F	39.5	2.20	226.0	9.14	4.311	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1 77F	0.0	0.00	226.0	9.14	4.297	2	987	0.01600	0.00	0.00	0	124	0	2.01	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	2.09	264.8	10.26	4.965	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 79F	0.0	0.00	264.8	10.26	4.948	2	900	0.01300	0.00	0.00	0	124	0	1.94	0.00
1 80F	39.6	2.04	304.4	11.31	5.602	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 81F	0.0	0.00	304.4	11.31	5.585	2	831	0.01430	0.00	0.00	0	124	0	1.86	0.00
1 82F	39.9	1.97	344.3	12.31	6.215	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 83F	0.0	0.00	344.3	12.31	6.194	2	829	0.01210	0.00	0.00	0	124	0	1.78	0.00
1 84F	39.8	1.88	384.1	13.13	6.795	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 85F	0.0	0.00	384.1	13.13	6.769	2	853	0.01170	0.00	0.00	0	124	0	1.70	0.00
1 86F	39.1	1.85	423.2	13.77	7.359	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 87F	0.0	0.00	423.2	13.77	7.318	2	1094	0.00990	0.00	0.00	0	124	0	1.70	0.00
1 88F	22.9	1.04	446.1	13.81	7.650	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 89F	0.0	0.00	446.1	13.81	7.608	2	845	0.00780	0.00	0.00	0	124	0	1.63	0.00
1 90F	36.2	1.52	482.3	14.10	8.093	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.01
1 91F	0.0	0.00	482.3	14.10	8.005	2	1675	0.00880	0.00	0.00	0	124	0	1.51	0.00
1 92F	23.7	0.91	506.0	14.08	8.297	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.01
1 93F	0.0	0.00	506.0	14.08	8.222	2	1298	0.00950	0.00	0.00	0	124	0	1.39	0.00
1 94F	17.9	0.67	523.9	14.09	8.437	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.01
1 95F	0.0	0.00	523.9	14.09	8.368	2	1020	0.00840	0.00	0.00	0	124	0	1.35	0.00
1 96F	22.5	0.82	546.4	14.16	8.632	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 97F	0.0	0.00	546.4	14.16	8.518	2	1387	0.00640	0.00	0.00	0	124	0	1.32	0.00
1 98F	21.4	0.78	567.8	14.13	8.768	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.01
1 99F	0.0	0.00	567.8	14.13	8.679	2	1222	0.00990	0.00	0.00	0	124	0	1.32	0.00
1 100F	16.7	0.99	584.5	14.20	8.995	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.10
1 101F	0.0	0.00	584.5	14.20	8.903	2	1247	0.01150	0.00	0.00	0	124	0	1.28	0.00
1 102F	23.0	1.32	607.5	14.32	9.325	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.10
1 103F	0.0	0.00	607.5	14.32	9.072	2	3287	0.01110	0.00	0.00	0	124	0	1.24	0.00
1 104G	18.2	1.08	18.2	1.08	0.345	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1 105G	0.0	0.00	18.2	1.08	0.318	2	1898	0.01040	0.00	0.00	0	134	0	1.28	0.00
1 106G	39.9	4.50	58.1	4.96	1.755	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.07
1 107G	0.0	0.00	58.1	4.96	1.750	2	2469	0.00900	0.00	0.00	0	134	0	2.81	0.00
1 109C	21.4	1.23	797.3	15.92	12.076	0	0	0.00000	0.00	0.00	0	124	30	1.24	0.10
1 108CE	41.3	1.64	838.6	16.67	12.746	0	0	0.00000	0.00	0.00	0	124	0	1.24	0.00
1 109CF	607.5	13.97	1446.1	30.29	21.818	0	0	0.00000	0.00	0.00	0	124	0	1.24	0.00

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*                                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1290 QC    30.29 QCG    31.34 QG     1.05       1  110G  TG 1191 QG     4.23 QG-
1597820262214473900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q1C    25.47 Q_
0.00
*                                        1  110CG TCG 1289 QCG    31.34 QC    30.29 QG     1.06
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	4.23	1504.2	31.34	23.180	2	2279	0.00940	0.00	0.00	0	124	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinH.lac Run date: Thu Sep 24 08:49:21 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.13	19.0	1.13	0.360	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1	2H	0.0	0.00	19.0	1.13	0.348	2	1718	0.00900	0.00	0.00	0	134	0	1.28	0.00
1	3H	39.5	1.56	58.5	2.12	0.847	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.03
1	4H	0.0	0.00	58.5	2.12	0.847	2	1850	0.01100	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinI.lac Run date: Tue Sep 29 16:56:39 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	0.67	10.8	0.67	0.215	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1	2I	0.0	0.00	10.8	0.67	0.116	2	1416	0.01690	0.00	0.00	0	124	0	2.24	0.00
1	3I	18.1	1.11	28.9	1.55	0.471	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1	4I	0.0	0.00	28.9	1.55	0.455	2	929	0.01630	0.00	0.00	0	124	0	2.21	0.00
1	5I	12.8	0.79	41.7	2.15	0.706	0	0	0.00000	0.00	0.00	0	124	30	2.21	0.01
1	6I	0.0	0.00	41.7	2.15	0.694	2	459	0.01690	0.00	0.00	0	124	0	2.21	0.00
1	7I	16.5	0.99	58.2	2.97	1.012	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1	8I	0.0	0.00	58.2	2.97	0.998	2	616	0.01360	0.00	0.00	0	134	0	2.17	0.00
1	9I	25.9	1.56	84.1	4.21	1.497	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1	10I	0.0	0.00	84.1	4.21	1.496	2	879	0.01490	0.00	0.00	0	134	0	2.17	0.00
1	11I	26.8	1.58	110.9	5.34	2.003	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1	12I	0.0	0.00	110.9	5.34	2.003	2	968	0.01270	0.00	0.00	0	134	0	2.13	0.00
1	13I	31.1	1.77	142.0	6.40	2.569	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1	14I	0.0	0.00	142.0	6.40	2.566	2	1180	0.01260	0.00	0.00	0	134	0	2.05	0.00
1	15I	37.7	2.10	179.7	7.36	3.238	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	16I	0.0	0.00	179.7	7.36	3.223	2	1443	0.01290	0.00	0.00	0	134	0	2.01	0.00
1	17I	27.6	1.46	207.3	7.58	3.688	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1	18I	0.0	0.00	207.3	7.58	3.674	2	900	0.01190	0.00	0.00	0	134	0	1.90	0.00
1	19I	25.5	1.32	232.8	7.93	4.096	0	0	0.00000	0.00	0.00	0	134	30	1.86	0.01
1	20I	0.0	0.00	232.8	7.93	4.080	2	838	0.01250	0.00	0.00	0	134	0	1.86	0.00
1	21I	37.2	1.84	270.0	8.70	4.668	0	0	0.00000	0.00	0.00	0	134	30	1.78	0.01
1	22I	0.0	0.00	270.0	8.70	4.641	2	1165	0.01030	0.00	0.00	0	134	0	1.78	0.00
1	23I	34.3	1.62	304.3	9.14	5.159	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1	24I	0.0	0.00	304.3	9.14	5.131	2	1034	0.01070	0.00	0.00	0	134	0	1.70	0.00
1	25I	38.0	1.72	342.3	9.68	5.681	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1	26I	0.0	0.00	342.3	9.68	5.648	2	1049	0.01010	0.00	0.00	0	134	0	1.63	0.00
1	27I	39.5	1.61	381.8	10.07	6.164	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.01
1	28I	0.0	0.00	381.8	10.07	6.082	2	2077	0.00930	0.00	0.00	0	134	0	1.47	0.00
1	29I	29.4	1.43	411.2	10.10	6.538	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.05
1	30I	0.0	0.00	411.2	10.10	6.463	2	1661	0.00960	0.00	0.00	0	134	0	1.35	0.00
1	31I	39.6	2.42	450.8	10.47	7.236	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1	32I	0.0	0.00	450.8	10.47	7.171	2	1306	0.00980	0.00	0.00	0	134	0	1.32	0.00
1	33I	39.3	3.25	490.1	11.44	8.211	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.18
1	34I	0.0	0.00	490.1	11.44	8.125	2	1279	0.00660	0.00	0.00	0	134	0	1.32	0.00
1	35I	26.7	1.58	516.8	11.97	8.630	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1	36I	0.0	0.00	516.8	11.97	8.581	2	878	0.01140	0.00	0.00	0	134	0	1.28	0.00
1	37I	37.9	1.79	554.7	12.74	9.153	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.06
1	38I	0.0	0.00	554.7	12.74	9.012	2	1809	0.00760	0.00	0.00	0	134	0	1.24	0.00
1	39J	27.8	1.55	27.8	1.55	0.496	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1	40J	0.0	0.00	27.8	1.55	0.494	2	1645	0.01190	0.00	0.00	0	134	0	2.01	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.01	46.6	2.09	0.818	0	0	0.00000	0.00	0.00	0	134	30	1.94	0.01
1 42J	0.0	0.00	46.6	2.09	0.816	2	760	0.01290	0.00	0.00	0	134	0	1.94	0.00
1 43J	32.3	1.70	78.9	3.35	1.360	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1 44J	0.0	0.00	78.9	3.35	1.360	2	1022	0.01280	0.00	0.00	0	134	0	1.90	0.00
1 45J	32.3	1.63	111.2	4.52	1.882	0	0	0.00000	0.00	0.00	0	134	30	1.82	0.01
1 46J	0.0	0.00	111.2	4.52	1.879	2	1126	0.01150	0.00	0.00	0	134	0	1.82	0.00
1 47J	27.3	1.29	138.5	5.18	2.291	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1 48J	0.0	0.00	138.5	5.18	2.281	2	1116	0.01060	0.00	0.00	0	134	0	1.70	0.00
1 49J	22.5	1.02	161.0	5.35	2.606	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1 50J	0.0	0.00	161.0	5.35	2.592	2	1019	0.01040	0.00	0.00	0	134	0	1.63	0.00
1 51J	18.6	0.76	179.6	5.45	2.835	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.01
1 52J	0.0	0.00	179.6	5.45	2.815	2	1085	0.00980	0.00	0.00	0	134	0	1.47	0.00
1 53J	35.3	1.87	214.9	5.81	3.412	0	0	0.00000	0.00	0.00	0	134	30	1.47	0.05
1 54J	0.0	0.00	214.9	5.81	3.385	2	1400	0.01030	0.00	0.00	0	134	0	1.47	0.00
1 55J	40.0	2.57	254.9	7.16	4.208	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.10
1 56J	0.0	0.00	254.9	7.16	4.167	2	1510	0.00790	0.00	0.00	0	134	0	1.39	0.00
1 57J	40.0	2.44	294.9	8.20	4.948	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1 58J	0.0	0.00	294.9	8.20	4.905	2	1410	0.00900	0.00	0.00	0	134	0	1.32	0.00
1 59J	37.3	4.07	332.2	10.41	6.208	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.29
1 60J	0.0	0.00	332.2	10.41	6.156	2	1434	0.00910	0.00	0.00	0	134	0	1.28	0.00
1 61J	28.5	1.63	360.7	10.97	6.679	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 62J	0.0	0.00	360.7	10.97	6.573	2	2082	0.00730	0.00	0.00	0	134	0	1.24	0.00

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*                                                    CONFLUENCE Q'S                                                         *
* 1   63I  TI 1201 QI    12.23 QIJ    22.57 QJ    10.34       1   63J  TJ 1202 QJ    10.34 QJ28840361984.00 QÃI    12.23 Q"     0.00
*                                        1   63IJ TIJ 1202 QIJ    22.57 QI    12.23 QJ    10.34
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	10.34	915.4	22.57	15.584	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinK.lac   Run date: Fri Sep 25 09:35:34 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 1K	136.5	342.07	136.5	342.07	16.070	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1 2K	0.0	0.00	136.5	342.07	16.071	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 3K	21.5	1.48	158.0	336.69	16.545	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1 4K	0.0	0.00	158.0	336.69	16.540	2	571	0.03050	0.00	0.00	0	124	0	2.48	0.00
1 5K	39.6	2.68	197.6	335.47	17.398	0	0	0.00000	0.00	0.00	0	124	30	2.44	0.01
1 6B	39.7	2.28	39.7	2.28	0.728	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 6K	0.0	0.00	197.6	335.47	17.403	2	1014	0.02040	0.00	0.00	0	134	0	1.24	0.00
1 7K	39.6	2.64	237.2	326.43	18.246	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1 8K	0.0	0.00	237.2	326.43	18.242	2	1054	0.01830	0.00	0.00	0	124	0	2.40	0.00
1 9K	30.7	1.98	267.9	315.44	18.875	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1 10K	0.0	0.00	267.9	315.44	18.863	2	957	0.01610	0.00	0.00	0	134	0	2.32	0.00
1 11K	33.2	2.10	301.1	306.14	19.535	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 12K	0.0	0.00	301.1	306.14	19.491	2	1511	0.01470	0.00	0.00	0	134	0	2.28	0.00
1 13L	28.8	2.04	28.8	2.04	0.652	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 14L	0.0	0.00	28.8	2.04	0.651	2	659	0.02120	0.00	0.00	0	134	0	2.55	0.00
1 15L	24.8	1.73	53.6	3.67	1.206	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1 16L	0.0	0.00	53.6	3.67	1.205	2	724	0.02090	0.00	0.00	0	134	0	2.52	0.00
1 17B	39.1	2.28	78.8	4.56	1.458	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.09
1 18L	0.0	0.00	53.6	3.61	1.205	2	1152	0.01700	0.00	0.00	0	134	0	1.32	0.00
1 19L	21.3	1.42	74.9	4.43	1.659	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 20L	0.0	0.00	74.9	4.43	1.657	2	1374	0.01640	0.00	0.00	0	134	0	2.40	0.00
1 21L	17.9	1.15	92.8	4.63	2.025	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1 22L	0.0	0.00	92.8	4.63	2.014	2	1523	0.01560	0.00	0.00	0	134	0	2.32	0.00

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*                                                           CONFLUENCE Q'S                                              *
* 1   23K  TK 1170 QK   280.97 QKL   284.27 QL     3.30      1   23L  TL 1197 QL     4.47
QL69997005136616530000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000.00 Q¼K    36.70 Q□     1.#R
*                                        1   23KL TKL 1170 QKL   284.27 QK   280.97 QL     3.30
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 23KL	92.8	4.47	393.9	284.27	21.471	2	709	0.01300	0.00	0.00	0	134	0	2.32	0.00
1 24K	30.9	1.86	424.8	280.35	22.067	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 25K	0.0	0.00	424.8	280.35	22.021	2	778	0.01320	0.00	0.00	0	134	0	2.17	0.00
1 26K	32.3	1.95	457.1	275.46	22.644	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 27K	0.0	0.00	457.1	275.46	22.572	2	881	0.01070	0.00	0.00	0	134	0	2.17	0.00
1 28K	28.9	1.71	486.0	265.48	23.119	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1 29K	0.0	0.00	486.0	265.48	23.038	2	934	0.01050	0.00	0.00	0	134	0	2.13	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 30K	21.2	1.23	507.2	255.98	23.432	0	0	0.00000	0.00	0.00	0	134	30	2.09	0.01
1 31K	0.0	0.00	507.2	255.98	23.365	2	853	0.01320	0.00	0.00	0	134	0	2.09	0.00
1 32M	486.7	2054.87	486.7	2054.87	265.980	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1 33M	0.0	0.00	486.7	2054.87	265.603	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	2.24	518.4	1988.09	266.321	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 35M	0.0	0.00	518.4	1988.09	266.308	2	1319	0.02170	0.00	0.00	0	134	0	2.55	0.00
1 36M	29.5	2.03	547.9	1902.52	266.958	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 37M	0.0	0.00	547.9	1902.52	266.916	2	1114	0.01940	0.00	0.00	0	134	0	2.48	0.00
1 38M	27.9	1.86	575.8	1845.35	267.510	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 39M	0.0	0.00	575.8	1845.35	267.467	2	1014	0.01810	0.00	0.00	0	134	0	2.40	0.00
1 40M	39.2	2.57	615.0	1786.81	268.288	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 41M	0.0	0.00	615.0	1786.81	268.286	2	1409	0.01550	0.00	0.00	0	134	0	2.36	0.00
1 42N	197.3	411.01	197.3	411.01	23.129	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	197.3	411.01	23.130	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	2.80	236.8	400.58	24.024	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 45N	0.0	0.00	236.8	400.58	24.021	2	684	0.05170	0.00	0.00	0	134	0	2.55	0.00
1 46N	38.9	2.72	275.7	401.53	24.891	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1 47N	0.0	0.00	275.7	401.53	24.885	2	702	0.02820	0.00	0.00	0	134	0	2.52	0.00
1 48N	37.9	2.61	313.6	400.94	25.719	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 49N	0.0	0.00	313.6	400.94	25.725	2	938	0.02310	0.00	0.00	0	134	0	2.48	0.00
1 50N	32.3	2.15	345.9	398.56	26.414	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 51N	0.0	0.00	345.9	398.56	26.341	2	1933	0.00920	0.00	0.00	0	134	0	2.40	0.00

****
* CONFLUENCE Q'S *
* 1 52M TM 1162 QM 1705.52 QMN 1868.06 QN 162.54 1 52N TN 1170 QN 354.77 QN 0.00 Q□M 668.86 Q□ 1.#R
* 1 52MN TMN 1162 QMN 1868.06 QM 1705.52 QN 162.54
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	345.9	354.77	960.9	1868.06	294.517	2	885	0.02080	0.00	0.00	0	134	0	2.40	0.00
1 53M	18.1	1.23	979.0	1831.90	294.909	0	0	0.00000	0.00	0.00	0	134	30	2.44	0.01
1 54M	0.0	0.00	979.0	1831.90	294.627	2	1259	0.00920	0.00	0.00	0	134	0	2.44	0.00
1 55O	35.7	2.38	35.7	2.38	0.761	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 56O	0.0	0.00	35.7	2.38	0.759	2	2369	0.01220	0.00	0.00	0	134	0	2.40	0.00
1 57B	40.0	2.66	118.8	7.22	2.310	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 58O	0.0	0.00	35.7	1.95	0.756	2	1288	0.01250	0.00	0.00	0	134	0	2.40	0.00

****
* CONFLUENCE Q'S *
* 1 59M TM 1166 QM 1757.65 QMO 1758.55 QO 0.89 1 59O TO 1204 QO 1.84 QO-
8009971150952410100000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000.00 QTM 267.36 Q□ 1.#R
* 1 59MO TMO 1166 QMO 1758.55 QM 1757.65 QO 0.89
****

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	1.84	1014.7	1758.55	295.100	2	934	0.01150	0.00	0.00	0	134	0	2.40	0.00
1 60M	21.5	1.30	1036.2	1725.64	295.514	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 61M	0.0	0.00	1036.2	1725.64	295.161	2	1075	0.01320	0.00	0.00	0	134	0	2.17	0.00
1 62M	0.0	0.00	1036.2	1691.63	295.159	2	5	0.01000	0.00	0.00	0	134	0	2.17	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1185 QK 249.35 QKM 961.30 QM 711.95 1 63M TM 1170 QM 1691.55
QM36354496738566044000000000000000000000000000000000000000000000000.00 QÝK 43.92 Q□ 1.#R
* 1 63KM TKM 1170 QKM 1735.47 QK 43.92 QM 1691.55
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1036.2	1691.55	1543.4	1735.47	318.522	2	5	0.01000	0.00	0.00	0	134	0	2.17	0.00
1 64K	31.4	1.86	1574.8	1737.06	319.116	0	0	0.00000	0.00	0.00	0	134	30	2.13	0.01
1 65K	0.0	0.00	1574.8	1737.06	318.724	2	784	0.01050	0.00	0.00	0	134	0	2.13	0.00
1 66K	37.2	2.16	1612.0	1712.23	319.414	0	0	0.00000	0.00	0.00	0	124	30	2.09	0.01
1 67K	0.0	0.00	1612.0	1712.23	318.990	2	770	0.01080	0.00	0.00	0	124	0	2.09	0.00
1 68K	34.7	1.94	1646.7	1697.52	319.609	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1 69K	0.0	0.00	1646.7	1697.52	319.020	2	992	0.01000	0.00	0.00	0	124	0	2.01	0.00
1 70K	19.1	1.03	1665.8	1669.39	319.349	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 71K	0.0	0.00	1665.8	1669.39	318.630	2	975	0.00800	0.00	0.00	0	124	0	1.94	0.00
1 72K	10.9	0.57	1676.7	1635.04	318.814	0	0	0.00000	0.00	0.00	0	124	30	1.90	0.01
1 73K	0.0	0.00	1676.7	1635.04	318.167	2	715	0.00700	0.00	0.00	0	124	0	1.90	0.00
1 74K	24.2	1.25	1700.9	1618.12	318.567	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 75K	0.0	0.00	1700.9	1618.12	317.795	2	1168	0.01280	0.00	0.00	0	124	0	1.86	0.00
1 76P	32.2	103.06	32.2	103.06	3.805	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	32.2	103.06	3.801	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	1.88	58.7	101.61	4.401	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 79P	0.0	0.00	58.7	101.61	4.402	2	1220	0.00870	0.00	0.00	0	124	0	2.55	0.00
1 80P	39.7	2.73	98.4	79.31	5.276	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 81P	0.0	0.00	98.4	79.31	5.263	2	2419	0.01850	0.00	0.00	0	134	0	2.48	0.00
1 82Q	40.0	2.83	40.0	2.83	0.906	0	0	0.00000	0.00	0.00	0	134	30	2.55	0.01
1 83Q	0.0	0.00	40.0	2.83	0.905	2	1582	0.02720	0.00	0.00	0	134	0	2.55	0.00
1 84Q	40.0	2.75	80.0	5.13	1.786	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 85Q	0.0	0.00	80.0	5.13	1.784	2	1847	0.02110	0.00	0.00	0	134	0	2.48	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1170 QP 57.48 QPQ 61.63 QQ 4.15 1 86Q TQ 1183 QQ 4.85 QQ -0.00 QSP 30.14 Q□ 1.#R
* 1 86PQ TPQ 1170 QPQ 61.63 QP 57.48 QQ 4.15
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	4.85	178.4	61.63	7.034	2	949	0.02000	0.00	0.00	0	134	0	2.48	0.00
1 87P	40.0	2.75	218.4	61.48	7.915	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 88P	0.0	0.00	218.4	61.48	7.893	2	856	0.01150	0.00	0.00	0	134	0	2.48	0.00
1 89P	40.0	2.53	258.4	60.24	8.702	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 90P	0.0	0.00	258.4	60.24	8.670	2	1066	0.01300	0.00	0.00	0	134	0	2.28	0.00
1 91P	40.0	2.49	298.4	57.74	9.465	0	0	0.00000	0.00	0.00	0	134	30	2.24	0.01
1 92P	0.0	0.00	298.4	57.74	9.413	2	1323	0.01000	0.00	0.00	0	134	0	2.24	0.00
1 93P	38.5	2.32	336.9	53.63	10.155	0	0	0.00000	0.00	0.00	0	134	30	2.17	0.01
1 94P	0.0	0.00	336.9	53.63	10.099	2	1231	0.00980	0.00	0.00	0	134	0	2.17	0.00
1 95P	32.9	1.95	369.8	51.01	10.721	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 96P	0.0	0.00	369.8	51.01	10.575	2	853	0.00100	0.00	0.00	0	124	0	2.13	0.00
1 97P	32.3	1.84	402.1	43.78	11.162	0	0	0.00000	0.00	0.00	0	124	30	2.05	0.01
1 98P	0.0	0.00	402.1	43.78	11.103	2	903	0.00830	0.00	0.00	0	124	0	2.05	0.00
1 99P	36.0	1.97	438.1	43.34	11.732	0	0	0.00000	0.00	0.00	0	124	30	1.97	0.01
1 100P	0.0	0.00	438.1	43.34	11.646	2	1173	0.00770	0.00	0.00	0	124	0	1.97	0.00
1 101P	22.9	1.23	461.0	42.20	12.041	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1 102P	0.0	0.00	461.0	42.20	11.990	2	832	0.01210	0.00	0.00	0	124	0	1.94	0.00
1 103P	12.6	0.65	473.6	41.93	12.198	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1 104P	0.0	0.00	473.6	41.93	12.132	2	949	0.01050	0.00	0.00	0	124	0	1.86	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1181 QK 1591.49 QKP 1604.15 QP 12.65 1 105P TP 1246 QP 41.35
QP5072807775211081400000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QpK 242.61 Q□ 1.#R
* 1 105KP TKP 1181 QKP 1604.15 QK 1591.49 QP 12.65
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	473.6	41.35	2174.5	1604.15	329.922	2	5	0.01000	0.00	0.00	0	124	0	1.86	0.00
1 106K	32.1	1.62	2206.6	1604.88	330.441	0	0	0.00000	0.00	0.00	0	124	30	1.82	0.01
1 107K	0.0	0.00	2206.6	1604.88	329.718	2	913	0.01100	0.00	0.00	0	124	0	1.82	0.00
1 108K	37.7	1.86	2244.3	1589.34	330.313	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 109K	0.0	0.00	2244.3	1589.34	329.431	2	1081	0.01000	0.00	0.00	0	124	0	1.78	0.00
1 110K	39.4	1.86	2283.7	1563.12	330.025	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 111K	0.0	0.00	2283.7	1563.12	329.243	2	1044	0.01240	0.00	0.00	0	124	0	1.70	0.00
1 112K	39.8	1.80	2323.5	1546.86	329.819	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.01
1 113K	0.0	0.00	2323.5	1546.86	328.932	2	1121	0.01110	0.00	0.00	0	124	0	1.63	0.00
1 114K	40.0	1.72	2363.5	1528.43	329.483	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.01
1 115K	0.0	0.00	2363.5	1528.43	328.657	2	960	0.00950	0.00	0.00	0	124	0	1.55	0.00
1 116K	39.8	1.74	2403.3	1512.17	329.214	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.02
1 117K	0.0	0.00	2403.3	1512.17	328.423	2	919	0.00990	0.00	0.00	0	124	0	1.47	0.00
1 118K	39.8	2.22	2443.1	1498.33	329.133	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.07
1 119K	0.0	0.00	2443.1	1498.33	328.604	2	835	0.01980	0.00	0.00	0	134	0	1.39	0.00
1 120K	22.4	1.34	2465.5	1488.63	329.031	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.09
1 121K	0.0	0.00	2465.5	1488.63	327.999	2	1042	0.00770	0.00	0.00	0	134	0	1.35	0.00
1 122R	21.6	1.25	21.6	1.25	0.401	0	0	0.00000	0.00	0.00	0	134	30	2.09	0.01
1 123R	0.0	0.00	21.6	1.25	0.399	2	1940	0.01230	0.00	0.00	0	134	0	2.09	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 124R	32.5	1.85	54.1	2.49	0.990	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1 125R	0.0	0.00	54.1	2.49	0.990	2	1189	0.01320	0.00	0.00	0	134	0	2.05	0.00
1 126R	23.9	1.33	78.0	3.43	1.416	0	0	0.00000	0.00	0.00	0	134	30	2.01	0.01
1 127R	0.0	0.00	78.0	3.43	1.416	2	803	0.01280	0.00	0.00	0	134	0	2.01	0.00
1 128R	28.8	1.64	106.8	4.63	1.940	0	0	0.00000	0.00	0.00	0	134	30	2.05	0.01
1 129R	0.0	0.00	106.8	4.63	1.937	2	966	0.01040	0.00	0.00	0	134	0	2.05	0.00
1 130R	29.3	1.58	136.1	5.54	2.441	0	0	0.00000	0.00	0.00	0	134	30	1.94	0.01
1 131R	0.0	0.00	136.1	5.54	2.435	2	795	0.00960	0.00	0.00	0	134	0	1.94	0.00
1 132R	27.5	1.45	163.6	6.29	2.898	0	0	0.00000	0.00	0.00	0	134	30	1.90	0.01
1 133R	0.0	0.00	163.6	6.29	2.890	2	759	0.01050	0.00	0.00	0	134	0	1.90	0.00
1 134R	27.3	1.41	190.9	6.99	3.341	0	0	0.00000	0.00	0.00	0	134	30	1.86	0.01
1 135R	0.0	0.00	190.9	6.99	3.330	2	740	0.00980	0.00	0.00	0	134	0	1.86	0.00
1 136R	29.4	1.49	220.3	7.67	3.805	0	0	0.00000	0.00	0.00	0	134	30	1.82	0.01
1 137R	0.0	0.00	220.3	7.67	3.790	2	849	0.01000	0.00	0.00	0	134	0	1.82	0.00
1 138R	36.9	1.82	257.2	8.48	4.373	0	0	0.00000	0.00	0.00	0	134	30	1.78	0.01
1 139R	0.0	0.00	257.2	8.48	4.353	2	960	0.01020	0.00	0.00	0	134	0	1.78	0.00
1 140R	27.6	1.30	284.8	8.85	4.769	0	0	0.00000	0.00	0.00	0	134	30	1.70	0.01
1 141R	0.0	0.00	284.8	8.85	4.754	2	705	0.01250	0.00	0.00	0	134	0	1.70	0.00
1 142R	36.0	1.63	320.8	9.57	5.275	0	0	0.00000	0.00	0.00	0	134	30	1.63	0.01
1 143R	0.0	0.00	320.8	9.57	5.249	2	966	0.01040	0.00	0.00	0	134	0	1.63	0.00
1 144R	39.6	1.99	360.4	10.32	5.885	0	0	0.00000	0.00	0.00	0	134	30	1.81	0.01
1 145R	0.0	0.00	360.4	10.32	5.850	2	1078	0.00940	0.00	0.00	0	134	0	1.81	0.00
1 146R	27.4	1.06	387.8	10.41	6.188	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.01
1 147R	0.0	0.00	387.8	10.41	6.166	2	693	0.01440	0.00	0.00	0	134	0	1.39	0.00
1 148R	27.6	1.62	415.4	10.94	6.683	0	0	0.00000	0.00	0.00	0	134	30	1.39	0.08
1 149R	0.0	0.00	415.4	10.94	6.633	2	1266	0.00970	0.00	0.00	0	134	0	1.39	0.00
1 150R	20.7	1.29	436.1	11.09	7.046	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.10
1 151R	0.0	0.00	436.1	11.09	6.984	2	1379	0.00960	0.00	0.00	0	134	0	1.35	0.00

```
***************************************************************************************************************************
*                                                              CONFLUENCE Q'S                                             *
* 1  152K  TK 1198 QK  1467.02 QKR  1477.81 QR    10.79       1  152R  TR 1212 QR    11.04 QR-
1690632551139135000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000.00 Q-K  1049.13 Q□     1.#R
*                                               1  152KR TKR 1198 QKR  1477.81 QK  1467.02 QR    10.79
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	11.04	2901.6	1477.81	333.778	2	1212	0.00830	0.00	0.00	0	134	0	1.35	0.00
1 153K	38.8	2.16	2940.4	1450.02	334.468	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.08
1 154K	0.0	0.00	2940.4	1450.02	332.563	2	2066	0.00970	0.00	0.00	0	134	0	1.32	0.00
1 155K	27.3	1.54	2967.7	1393.49	333.057	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.09
1 156K	0.0	0.00	2967.7	1393.49	331.378	2	1710	0.00880	0.00	0.00	0	134	0	1.28	0.00
1 157K	22.1	1.27	2989.8	1360.26	331.784	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 158K	0.0	0.00	2989.8	1360.26	330.080	2	1697	0.00870	0.00	0.00	0	134	0	1.24	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 159S	39.3	2.33	39.3	2.33	0.744	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1 160S	0.0	0.00	39.3	2.33	0.743	2	2302	0.01100	0.00	0.00	0	134	0	1.28	0.00
1 161S	36.7	2.11	76.0	3.34	1.416	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 162S	0.0	0.00	76.0	3.34	1.409	2	2012	0.01210	0.00	0.00	0	134	0	1.24	0.00
1 163T	16.1	0.98	16.1	0.98	0.314	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1 164T	0.0	0.00	16.1	0.98	0.261	2	1839	0.00880	0.00	0.00	0	134	0	1.32	0.00
1 165T	28.5	1.74	44.6	2.15	0.818	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1 166T	0.0	0.00	44.6	2.15	0.817	2	887	0.01190	0.00	0.00	0	134	0	1.32	0.00
1 167T	38.0	2.18	82.6	4.05	1.514	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 168T	0.0	0.00	82.6	4.05	1.513	2	1078	0.00880	0.00	0.00	0	134	0	1.24	0.00
1 169T	39.8	2.28	122.4	5.61	2.244	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 170T	0.0	0.00	122.4	5.61	2.241	2	1337	0.01200	0.00	0.00	0	134	0	1.24	0.00
1 171T	29.2	1.68	151.6	6.34	2.776	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 172T	0.0	0.00	151.6	6.34	2.756	2	1813	0.00980	0.00	0.00	0	134	0	1.24	0.00
1 173KS	76.0	3.09	3065.8	1334.34	331.489	0	0	0.00000	0.00	0.00	0	134	0	1.24	0.00

****
* CONFLUENCE Q'S *
* 1 174K TK 1215 QK 1334.34 QKT 1339.55 QT 5.21 1 174T TT 1197 QT 5.89 QT -0.00 Q9K 419.31 Q□ 1.#R
* 1 174KT TKT 1215 QKT 1339.55 QK 1334.34 QT 5.21
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	5.89	3217.4	1339.55	333.132	2	1115	0.00920	0.00	0.00	0	134	0	1.24	0.00
1 175K	28.5	1.63	3245.9	1329.24	333.655	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 176K	0.0	0.00	3245.9	1329.24	331.668	2	1834	0.00810	0.00	0.00	0	134	0	1.24	0.00
1 177U	29.4	1.69	29.4	1.69	0.539	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 178U	29.1	1.67	58.5	3.36	1.073	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.10
1 179U	0.0	0.00	58.5	3.36	1.065	2	3079	0.00820	0.00	0.00	0	134	0	1.24	0.00
1 180U	31.8	1.50	90.3	2.98	1.545	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.06
1 181U	0.0	0.00	90.3	2.98	1.528	2	2207	0.01120	0.00	0.00	0	134	0	1.24	0.00
1 182U	21.3	0.84	111.6	2.98	1.797	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.03
1 183U	0.0	0.00	111.6	2.98	1.760	2	2448	0.00810	0.00	0.00	0	134	0	1.24	0.00

****
* CONFLUENCE Q'S *
* 1 184K TK 1223 QK 1297.76 QKU 1300.56 QU 2.80 1 184U TU 1240 QU 2.89
QU25616592694755313000000000000000000000000000.00 QÚK 951.21 Q□ 1.#R
* 1 184KU TKU 1223 QKU 1300.56 QK 1297.76 QU 2.80
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	2.89	3357.5	1300.56	333.422	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinV.lac Run date: Thu Sep 24 11:04:09 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	1.24	23.8	1.24	0.398	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.08
1	2V	0.0	0.00	23.8	1.24	0.396	2	1412	0.01030	0.00	0.00	0	134	0	1.24	0.00
1	3V	39.4	1.56	63.2	2.35	0.894	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.03
1	4V	0.0	0.00	63.2	2.35	0.893	2	1046	0.01150	0.00	0.00	0	134	0	1.24	0.00
1	5V	39.9	1.88	103.1	3.74	1.495	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.06
1	6V	0.0	0.00	103.1	3.74	1.495	2	892	0.01000	0.00	0.00	0	134	0	1.24	0.00
1	7V	40.0	1.89	143.1	5.09	2.098	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.06
1	8V	0.0	0.00	143.1	5.09	2.095	2	964	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\BasinW.lac Run date: Thu Sep 24 13:35:52 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	1.34	24.1	1.34	0.430	0	0	0.00000	0.00	0.00	0	124	30	2.01	0.01
1	2B	27.6	0.95	27.6	0.95	0.304	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	2W	0.0	0.00	24.1	1.34	0.428	2	1848	0.01050	0.00	0.00	0	134	0	1.24	0.00
1	3W	22.3	1.20	46.4	1.97	0.812	0	0	0.00000	0.00	0.00	0	124	30	1.94	0.01
1	4B	15.1	0.92	42.7	1.87	0.599	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1	4W	0.0	0.00	46.4	1.97	0.812	2	1007	0.01070	0.00	0.00	0	134	0	1.32	0.00
1	5W	26.9	1.39	73.3	2.93	1.256	0	0	0.00000	0.00	0.00	0	124	30	1.86	0.01
1	6W	0.0	0.00	73.3	2.93	1.255	2	1111	0.00990	0.00	0.00	0	124	0	1.86	0.00
1	7W	24.7	1.22	98.0	3.64	1.646	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1	8W	0.0	0.00	98.0	3.64	1.637	2	1118	0.00710	0.00	0.00	0	124	0	1.78	0.00
1	9W	35.1	1.66	133.1	4.33	2.167	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1	10W	0.0	0.00	133.1	4.33	2.154	2	1301	0.01000	0.00	0.00	0	124	0	1.70	0.00
1	11W	24.8	1.23	157.9	4.74	2.547	0	0	0.00000	0.00	0.00	0	124	30	1.66	0.02
1	12W	0.0	0.00	157.9	4.74	2.535	2	779	0.00750	0.00	0.00	0	124	0	1.66	0.00
1	13W	36.2	2.12	194.1	5.98	3.214	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.05
1	14W	0.0	0.00	194.1	5.98	3.202	2	915	0.01440	0.00	0.00	0	124	0	1.63	0.00
1	15W	33.0	2.05	227.1	7.39	3.858	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.07
1	16W	0.0	0.00	227.1	7.39	3.846	2	796	0.01390	0.00	0.00	0	124	0	1.55	0.00
1	17W	39.5	2.69	266.6	9.40	4.706	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.10
1	18W	0.0	0.00	266.6	9.40	4.689	2	930	0.01200	0.00	0.00	0	124	0	1.47	0.00
1	19W	32.8	2.11	299.4	10.78	5.363	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	20W	0.0	0.00	299.4	10.78	5.344	2	774	0.00940	0.00	0.00	0	124	0	1.39	0.00
1	21W	35.4	2.28	334.8	12.08	6.072	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	22W	0.0	0.00	334.8	12.08	6.038	2	1066	0.00820	0.00	0.00	0	124	0	1.39	0.00
1	23W	19.1	1.19	353.9	12.16	6.420	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.10
1	24W	0.0	0.00	353.9	12.16	6.381	2	860	0.00630	0.00	0.00	0	134	0	1.35	0.00
1	25W	11.4	0.71	365.3	12.17	6.609	0	0	0.00000	0.00	0.00	0	134	30	1.35	0.10
1	26W	0.0	0.00	365.3	12.17	6.576	2	684	0.00730	0.00	0.00	0	134	0	1.35	0.00
1	27W	22.7	1.39	388.0	12.42	7.019	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1	28W	0.0	0.00	388.0	12.42	6.931	2	1949	0.01030	0.00	0.00	0	134	0	1.32	0.00
1	29X	7.3	0.47	7.3	0.47	0.150	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	30X	0.0	0.00	7.3	0.47	0.055	2	1088	0.00760	0.00	0.00	0	124	0	1.39	0.00
1	31X	23.1	1.44	30.4	1.68	0.516	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.10
1	32X	0.0	0.00	30.4	1.68	0.514	2	882	0.01350	0.00	0.00	0	124	0	1.35	0.00
1	33X	13.0	0.79	43.4	2.31	0.768	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.10
1	34X	0.0	0.00	43.4	2.31	0.767	2	429	0.01290	0.00	0.00	0	124	0	1.32	0.00
1	35X	18.5	1.13	61.9	3.26	1.128	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.10
1	36X	0.0	0.00	61.9	3.26	1.126	2	1115	0.01280	0.00	0.00	0	124	0	1.32	0.00
1	37WX	61.9	3.14	449.9	13.71	8.024	2	642	0.00980	0.00	0.00	0	124	0	1.32	0.00
1	38W	19.2	0.93	469.1	13.87	8.323	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.06

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	39W	0.0	0.00	469.1	13.87	8.238	2	1430	0.00960	0.00	0.00	0	124	0	1.28	0.00
1	40Y	6.4	0.41	6.4	0.41	0.132	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	41Y	0.0	0.00	6.4	0.41	0.041	2	970	0.00890	0.00	0.00	0	124	0	1.39	0.00
1	42Y	11.2	0.72	17.6	0.98	0.272	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	43Y	0.0	0.00	17.6	0.98	0.176	2	831	0.01140	0.00	0.00	0	124	0	1.39	0.00
1	44Y	15.6	0.97	33.2	1.76	0.488	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.10
1	45Y	0.0	0.00	33.2	1.76	0.433	2	883	0.01070	0.00	0.00	0	124	0	1.35	0.00
1	46Y	9.5	0.58	42.7	2.12	0.618	0	0	0.00000	0.00	0.00	0	124	30	1.32	0.10
1	47Y	0.0	0.00	42.7	2.12	0.585	2	390	0.01680	0.00	0.00	0	124	0	1.32	0.00
1	48Y	13.1	0.78	55.8	2.71	0.834	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.10
1	49Y	0.0	0.00	55.8	2.71	0.790	2	658	0.01670	0.00	0.00	0	124	0	1.28	0.00
1	50Y	24.4	1.12	80.2	3.52	1.149	0	0	0.00000	0.00	0.00	0	124	30	1.28	0.05
1	51Y	0.0	0.00	80.2	3.52	1.137	2	1416	0.01050	0.00	0.00	0	124	0	1.28	0.00
1	52WY	80.2	3.34	549.3	15.81	9.259	2	1623	0.00800	0.00	0.00	0	124	0	1.28	0.00
1	53Z	12.8	0.92	12.8	0.92	0.294	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.10
1	54Z	0.0	0.00	12.8	0.92	0.226	2	1273	0.01320	0.00	0.00	0	124	0	1.55	0.00
1	55Z	24.9	1.74	37.7	2.34	0.782	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.10
1	56Z	0.0	0.00	37.7	2.34	0.781	2	1086	0.01170	0.00	0.00	0	124	0	1.51	0.00
1	57Z	25.8	1.71	63.5	3.62	1.327	0	0	0.00000	0.00	0.00	0	124	30	1.43	0.10
1	58Z	0.0	0.00	63.5	3.62	1.326	2	863	0.01350	0.00	0.00	0	124	0	1.43	0.00
1	59Z	30.1	1.94	93.6	5.06	1.945	0	0	0.00000	0.00	0.00	0	124	30	1.39	0.10
1	60Z	0.0	0.00	93.6	5.06	1.945	2	922	0.01230	0.00	0.00	0	124	0	1.39	0.00
1	61Z	28.0	1.75	121.6	6.21	2.504	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.10
1	62Z	0.0	0.00	121.6	6.21	2.501	2	907	0.01020	0.00	0.00	0	124	0	1.35	0.00
1	63Z	32.7	2.04	154.3	7.37	3.154	0	0	0.00000	0.00	0.00	0	124	30	1.35	0.10
1	64Z	0.0	0.00	154.3	7.37	3.145	2	1048	0.01130	0.00	0.00	0	124	0	1.35	0.00
1	65Z	25.7	1.22	180.0	7.74	3.535	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.05
1	66Z	0.0	0.00	180.0	7.74	3.522	2	1003	0.01240	0.00	0.00	0	134	0	1.32	0.00
1	67Z	9.1	0.56	189.1	7.74	3.700	0	0	0.00000	0.00	0.00	0	134	30	1.32	0.10
1	68Z	0.0	0.00	189.1	7.74	3.694	2	399	0.01470	0.00	0.00	0	134	0	1.32	0.00
1	69Z	24.4	1.44	213.5	8.15	4.156	0	0	0.00000	0.00	0.00	0	134	30	1.28	0.10
1	70Z	0.0	0.00	213.5	8.15	4.137	2	1072	0.01280	0.00	0.00	0	134	0	1.28	0.00
1	71Z	27.0	0.93	240.5	8.33	4.434	0	0	0.00000	0.00	0.00	0	134	30	1.24	0.01
1	72Z	0.0	0.00	240.5	8.33	4.398	2	1351	0.00920	0.00	0.00	0	134	0	1.24	0.00
1	73WZ	240.5	8.26	789.8	23.56	13.656	2	5	0.01000	0.00	0.00	0	134	0	1.24	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\Basin100A.lac Run date: Thu Sep 24 14:01:20 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.59	8.2	0.59	0.188	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.10
1 102A	0.0	0.00	8.2	0.59	0.088	2	1080	0.01170	0.00	0.00	0	124	0	1.55	0.00
1 103A	17.4	1.18	25.6	1.57	0.466	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.10
1 104A	0.0	0.00	25.6	1.57	0.464	2	846	0.01260	0.00	0.00	0	124	0	1.47	0.00
1 105A	18.4	1.22	44.0	2.56	0.854	0	0	0.00000	0.00	0.00	0	124	30	1.43	0.10
1 106A	0.0	0.00	44.0	2.56	0.853	2	782	0.01420	0.00	0.00	0	124	0	1.43	0.00
1 107A	24.3	1.70	68.3	3.80	1.353	0	0	0.00000	0.00	0.00	0	124	25	1.39	0.10
1 108A	0.0	0.00	68.3	3.80	1.353	2	822	0.01180	0.00	0.00	0	124	0	1.39	0.00
1 109A	21.0	1.53	89.3	4.73	1.785	0	0	0.00000	0.00	0.00	0	124	23	1.39	0.10
1 110A	0.0	0.00	89.3	4.73	1.785	2	717	0.01020	0.00	0.00	0	124	0	1.39	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 2 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q2\Basin100B.lac Run date: Tue Sep 29 15:32:18 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	1.81	30.0	1.81	0.578	0	0	0.00000	0.00	0.00	0	124	30	2.17	0.01
1 14B	22.1	1.36	52.1	3.16	1.012	0	0	0.00000	0.00	0.00	0	134	30	2.21	0.01
1 20B	38.7	2.41	90.8	5.57	1.781	0	0	0.00000	0.00	0.00	0	124	30	2.24	0.01
1 21B	11.2	0.70	102.0	6.27	2.004	0	0	0.00000	0.00	0.00	0	134	30	2.24	0.01
1 28B	24.5	1.63	126.5	7.90	2.526	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 29B	7.6	0.51	134.1	8.40	2.688	0	0	0.00000	0.00	0.00	0	124	30	2.40	0.01
1 35B	15.5	1.08	149.6	9.49	3.035	0	0	0.00000	0.00	0.00	0	124	30	2.52	0.01
1 36B	29.0	2.05	178.6	11.54	3.691	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 100B	67.0	238.89	245.6	249.99	11.620	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.6	249.99	11.622	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	1.90	271.6	246.31	12.229	0	0	0.00000	0.00	0.00	0	124	30	2.63	0.01
1 103B	0.0	0.00	271.6	246.31	12.234	2	1058	0.04570	0.00	0.00	0	124	0	2.63	0.00
1 104B	24.8	1.76	296.4	236.13	12.795	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 105B	0.0	0.00	296.4	236.13	12.785	2	1470	0.02950	0.00	0.00	0	124	0	2.55	0.00
1 106B	18.1	1.25	314.5	207.64	13.183	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1 107B	0.0	0.00	314.5	207.64	13.176	2	959	0.01820	0.00	0.00	0	124	0	2.48	0.00
1 108C	279.4	582.04	279.4	582.04	32.754	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	279.4	582.04	32.764	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	2.85	319.1	569.98	33.677	0	0	0.00000	0.00	0.00	0	124	30	2.59	0.01
1 111C	0.0	0.00	319.1	569.98	33.690	2	1568	0.03970	0.00	0.00	0	124	0	2.59	0.00
1 112D	37.7	2.71	37.7	2.71	0.867	0	0	0.00000	0.00	0.00	0	124	30	2.59	0.01
1 113D	0.0	0.00	37.7	2.71	0.866	2	2150	0.02780	0.00	0.00	0	124	0	2.59	0.00

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*                                             CONFLUENCE Q'S                                                    *
* 1  114C  TC 1160 QC   560.66 QCD   562.23 QD     1.57       1  114D  TD 1179 QD     2.45 QD-
284665626079085880000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000.00 Q□C    60.90 QŽ     0.00
*                                             1  114CD TCD 1160 QCD   562.23 QC   560.66 QD     1.57
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	2.45	356.8	562.23	34.538	2	1532	0.02480	0.00	0.00	0	124	0	2.59	0.00
1 115C	12.0	0.83	368.8	547.59	34.803	0	0	0.00000	0.00	0.00	0	124	30	2.48	0.01
1 116C	0.0	0.00	368.8	547.59	34.791	2	949	0.01960	0.00	0.00	0	124	0	2.48	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 2

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   190.26 QBC   643.39 QC   453.14       1  117C  TC 1165 QC   541.20
QC68041232739012372000000000000000000000000000000000000000000.00 QvB   150.36 QŽ     0.00
*                                        1  117BC TBC 1164 QBC   698.34 QB   169.37 QC   528.97
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	368.8	541.20	683.3	698.34	47.881	2	1210	0.01230	0.00	0.00	0	124	0	2.48	0.00
1 118B	34.1	2.20	717.4	674.24	48.584	0	0	0.00000	0.00	0.00	0	124	30	2.32	0.01
1 119B	0.0	0.00	717.4	674.24	48.518	2	944	0.01350	0.00	0.00	0	124	0	2.32	0.00
1 120E	31.1	2.20	31.1	2.20	0.704	0	0	0.00000	0.00	0.00	0	124	30	2.55	0.01
1 121E	0.0	0.00	31.1	2.20	0.703	2	2049	0.03100	0.00	0.00	0	124	0	2.55	0.00
1 122E	18.9	1.32	50.0	3.11	1.126	0	0	0.00000	0.00	0.00	0	124	30	2.52	0.01
1 123E	0.0	0.00	50.0	3.11	1.125	2	866	0.03040	0.00	0.00	0	124	0	2.52	0.00
1 124E	37.4	2.53	87.4	5.17	1.935	0	0	0.00000	0.00	0.00	0	134	30	2.44	0.01
1 125E	0.0	0.00	87.4	5.17	1.933	2	1753	0.01750	0.00	0.00	0	134	0	2.44	0.00
1 126E	21.3	1.40	108.7	5.79	2.380	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 127E	0.0	0.00	108.7	5.79	2.375	2	919	0.01770	0.00	0.00	0	134	0	2.36	0.00
1 128E	16.6	1.29	125.3	6.01	2.718	0	0	0.00000	0.00	0.00	0	134	20	2.32	0.01
1 129E	0.0	0.00	125.3	6.01	2.708	2	904	0.01440	0.00	0.00	0	134	0	2.32	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  130B  TB 1170 QB   663.45 QBE   668.53 QE     5.09       1  130E  TE 1191 QE     5.92 QE    -0.00 Q□B   138.89 QŽ     0.00
*                                        1  130BE TBE 1170 QBE   668.53 QB   663.45 QE     5.09
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	5.92	842.7	668.53	51.086	2	1100	0.01140	0.00	0.00	0	134	0	2.32	0.00
1 131F	13.6	0.95	13.6	0.95	0.304	0	0	0.00000	0.00	0.00	0	134	30	2.52	0.01
1 132F	0.0	0.00	13.6	0.95	0.244	2	906	0.03180	0.00	0.00	0	134	0	2.52	0.00
1 133F	26.6	1.83	40.2	2.67	0.829	0	0	0.00000	0.00	0.00	0	134	30	2.48	0.01
1 134F	0.0	0.00	40.2	2.67	0.828	2	1224	0.02140	0.00	0.00	0	134	0	2.48	0.00
1 135F	37.2	2.48	77.4	4.73	1.621	0	0	0.00000	0.00	0.00	0	134	30	2.40	0.01
1 136F	0.0	0.00	77.4	4.73	1.620	2	1787	0.01630	0.00	0.00	0	134	0	2.40	0.00
1 137F	24.5	1.58	101.9	5.43	2.124	0	0	0.00000	0.00	0.00	0	134	30	2.32	0.01
1 138F	0.0	0.00	101.9	5.43	2.123	2	979	0.01940	0.00	0.00	0	134	0	2.32	0.00
1 139F	14.3	0.91	116.2	5.78	2.413	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 140F	0.0	0.00	116.2	5.78	2.407	2	790	0.01440	0.00	0.00	0	134	0	2.28	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 2 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 2

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*****************************************************************************************************************************
*                                                           CONFLUENCE Q'S                                                  *
* 1  141B  TB 1173 QB   649.94 QBF   654.81 QF     4.87      1  141F  TF 1187 QF     5.67 QF-
104324880520268040000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
.00 QvB   267.43 QŽ     0.00
*                                         1  141BF TBF 1173 QBF   654.81 QB   649.94 QF     4.87
*****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	5.67	958.9	654.81	53.307	2	1041	0.00840	0.00	0.00	0	134	0	2.28	0.00
1 142B	27.0	1.60	985.9	635.19	53.817	0	0	0.00000	0.00	0.00	0	124	30	2.13	0.01
1 143B	0.0	0.00	985.9	635.19	53.678	2	872	0.01000	0.00	0.00	0	124	0	2.13	0.00
1 144B	24.7	1.41	1010.6	624.81	54.128	0	0	0.00000	0.00	0.00	0	124	30	2.05	0.01
1 145B	0.0	0.00	1010.6	624.81	53.923	2	1127	0.01000	0.00	0.00	0	124	0	2.05	0.00
1 146B	26.0	1.42	1036.6	606.74	54.378	0	0	0.00000	0.00	0.00	0	124	30	1.97	0.01
1 147B	0.0	0.00	1036.6	606.74	54.163	2	1083	0.00870	0.00	0.00	0	124	0	1.97	0.00
1 148B	22.6	1.19	1059.2	587.95	54.544	0	0	0.00000	0.00	0.00	0	124	30	1.90	0.01
1 149B	0.0	0.00	1059.2	587.95	54.336	2	872	0.00640	0.00	0.00	0	124	0	1.90	0.00
1 150B	28.5	1.41	1087.7	572.91	54.787	0	0	0.00000	0.00	0.00	0	124	30	1.78	0.01
1 151B	0.0	0.00	1087.7	572.91	54.537	2	1358	0.01000	0.00	0.00	0	124	0	1.78	0.00
1 152B	23.4	1.10	1111.1	549.50	54.891	0	0	0.00000	0.00	0.00	0	124	30	1.70	0.01
1 153B	0.0	0.00	1111.1	549.50	54.648	2	1217	0.00940	0.00	0.00	0	124	0	1.70	0.00
1 154B	20.9	1.02	1132.0	532.09	54.973	0	0	0.00000	0.00	0.00	0	124	30	1.63	0.02
1 155B	0.0	0.00	1132.0	532.09	54.831	2	807	0.01170	0.00	0.00	0	124	0	1.63	0.00
1 156B	26.1	1.49	1158.1	527.78	55.309	0	0	0.00000	0.00	0.00	0	124	30	1.59	0.05
1 157B	0.0	0.00	1158.1	527.78	55.117	2	966	0.01090	0.00	0.00	0	124	0	1.59	0.00
1 158B	26.4	1.47	1184.5	518.72	55.588	0	0	0.00000	0.00	0.00	0	124	30	1.55	0.05
1 159B	0.0	0.00	1184.5	518.72	55.386	2	973	0.01030	0.00	0.00	0	124	0	1.55	0.00
1 160B	29.7	1.61	1214.2	508.77	55.902	0	0	0.00000	0.00	0.00	0	124	30	1.51	0.05
1 161B	0.0	0.00	1214.2	508.77	55.665	2	1044	0.00880	0.00	0.00	0	124	0	1.51	0.00
1 162B	27.9	1.64	1242.1	495.10	56.191	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.07
1 163B	0.0	0.00	1242.1	495.10	55.950	2	1101	0.01000	0.00	0.00	0	124	0	1.47	0.00
1 164B	25.2	1.71	1267.3	482.23	56.498	0	0	0.00000	0.00	0.00	0	124	30	1.47	0.10
1 165B	0.0	0.00	1267.3	482.23	56.263	2	1034	0.00970	0.00	0.00	0	124	0	1.47	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinA.lac Run date: Thu Sep 24 17:07:01 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	2.72	40.0	2.72	0.870	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1	2A	0.0	0.00	40.0	2.72	0.867	2	2398	0.00920	0.00	0.00	0	124	0	2.45	0.00
1	3A	39.8	2.45	79.8	3.77	1.652	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.01
1	4A	0.0	0.00	79.8	3.77	1.645	2	1498	0.00970	0.00	0.00	0	124	0	2.22	0.00
1	5A	38.3	2.23	118.1	5.09	2.359	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	6A	0.0	0.00	118.1	5.09	2.346	2	1253	0.00910	0.00	0.00	0	124	0	2.10	0.00
1	7A	32.4	1.83	150.5	5.98	2.933	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1	8A	0.0	0.00	150.5	5.98	2.918	2	1114	0.01010	0.00	0.00	0	124	0	2.04	0.00
1	9A	27.7	2.21	178.2	7.08	3.625	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.07
1	10A	0.0	0.00	178.2	7.08	3.602	2	1242	0.00870	0.00	0.00	0	124	0	1.99	0.00
1	11A	33.9	3.12	212.1	8.68	4.600	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1	12A	0.0	0.00	212.1	8.68	4.566	2	1469	0.00990	0.00	0.00	0	124	0	1.99	0.00
1	13A	38.9	3.47	251.0	10.45	5.677	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.10
1	14A	0.0	0.00	251.0	10.45	5.641	2	1177	0.00870	0.00	0.00	0	134	0	1.93	0.00
1	15A	38.3	3.31	289.3	12.21	6.701	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1	16A	0.0	0.00	289.3	12.21	6.668	2	994	0.01040	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinB.lac Run date: Thu Sep 24 17:13:11 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	2.03	22.1	2.03	0.651	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1	2B	0.0	0.00	22.1	2.03	0.649	2	2664	0.00930	0.00	0.00	0	124	0	1.99	0.00
1	3B	39.9	3.45	62.0	4.23	1.753	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.10
1	4B	0.0	0.00	62.0	4.23	1.749	2	1443	0.01240	0.00	0.00	0	124	0	1.87	0.00
1	5B	39.0	2.47	101.0	6.04	2.540	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.04
1	6B	0.0	0.00	101.0	6.04	2.535	2	732	0.01030	0.00	0.00	0	124	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinC.lac Run date: Tue Sep 29 12:20:59 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	1.79	17.8	1.79	0.572	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1	2C	0.0	0.00	17.8	1.79	0.571	2	1591	0.02010	0.00	0.00	0	124	0	3.62	0.00
1	3C	15.5	1.51	33.3	2.90	1.052	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1	4C	0.0	0.00	33.3	2.90	1.052	2	1045	0.01800	0.00	0.00	0	124	0	3.50	0.00
1	5C	29.5	2.78	62.8	5.08	1.939	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1	6C	0.0	0.00	62.8	5.08	1.939	2	1347	0.01730	0.00	0.00	0	124	0	3.39	0.00
1	7C	25.1	2.32	87.9	6.69	2.681	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	8C	0.0	0.00	87.9	6.69	2.677	2	1037	0.01750	0.00	0.00	0	124	0	3.33	0.00
1	9C	20.7	1.88	108.6	7.90	3.278	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1	10C	0.0	0.00	108.6	7.90	3.272	2	733	0.01640	0.00	0.00	0	124	0	3.27	0.00
1	11C	25.8	2.30	134.4	9.41	4.008	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1	12C	0.0	0.00	134.4	9.41	4.001	2	713	0.01620	0.00	0.00	0	124	0	3.21	0.00
1	13C	31.9	2.84	166.3	11.35	4.910	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1	14C	0.0	0.00	166.3	11.35	4.898	2	939	0.01560	0.00	0.00	0	124	0	3.21	0.00
1	15C	34.6	3.03	200.9	13.33	5.865	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1	16C	0.0	0.00	200.9	13.33	5.849	2	903	0.01260	0.00	0.00	0	124	0	3.15	0.00
1	17C	32.8	2.77	233.7	14.97	6.734	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1	18C	0.0	0.00	233.7	14.97	6.710	2	1112	0.01420	0.00	0.00	0	124	0	3.04	0.00
1	19C	23.2	1.88	256.9	15.65	7.311	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	20C	0.0	0.00	256.9	15.65	7.277	2	1160	0.01210	0.00	0.00	0	124	0	2.92	0.00
1	21C	29.7	2.26	286.6	16.01	7.999	0	0	0.00000	0.00	0.00	0	124	30	2.74	0.01
1	22C	0.0	0.00	286.6	16.01	7.940	2	1549	0.01120	0.00	0.00	0	124	0	2.74	0.00
1	23C	35.4	2.41	322.0	16.37	8.710	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1	24C	0.0	0.00	322.0	16.37	8.615	2	1993	0.01060	0.00	0.00	0	124	0	2.45	0.00
1	25C	28.1	1.78	350.1	16.42	9.183	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1	26C	0.0	0.00	350.1	16.42	9.139	2	765	0.00890	0.00	0.00	0	124	0	2.28	0.00
1	27C	35.0	2.04	385.1	16.75	9.792	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1	28C	0.0	0.00	385.1	16.75	9.664	2	1922	0.00820	0.00	0.00	0	124	0	2.10	0.00
1	29C	34.0	1.93	419.1	16.80	10.280	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1	30C	0.0	0.00	419.1	16.80	10.185	2	1457	0.01040	0.00	0.00	0	124	0	2.04	0.00
1	31C	29.3	1.62	448.4	16.94	10.702	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1	32C	0.0	0.00	448.4	16.94	10.616	2	1251	0.01080	0.00	0.00	0	124	0	1.99	0.00
1	33C	35.6	3.04	484.0	17.31	11.588	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.09
1	34C	0.0	0.00	484.0	17.31	11.432	2	2107	0.01100	0.00	0.00	0	124	0	1.93	0.00
1	35D	16.7	1.41	16.7	1.41	0.451	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	36D	0.0	0.00	16.7	1.41	0.449	2	1299	0.01300	0.00	0.00	0	134	0	3.04	0.00
1	37D	29.0	2.35	45.7	3.33	1.201	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	38D	0.0	0.00	45.7	3.33	1.200	2	1308	0.01380	0.00	0.00	0	124	0	2.92	0.00
1	39D	29.9	2.32	75.6	5.00	1.943	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1	40D	0.0	0.00	75.6	5.00	1.939	2	1530	0.01050	0.00	0.00	0	124	0	2.80	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.56	97.0	5.54	2.439	0	0	0.00000	0.00	0.00	0	124	30	2.63	0.01
1 42D	0.0	0.00	97.0	5.54	2.428	2	1185	0.01070	0.00	0.00	0	124	0	2.63	0.00
1 43D	26.1	1.77	123.1	6.09	2.995	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 44D	0.0	0.00	123.1	6.09	2.973	2	1524	0.01060	0.00	0.00	0	124	0	2.45	0.00
1 45D	30.2	1.96	153.3	6.59	3.601	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 46D	0.0	0.00	153.3	6.59	3.563	2	1697	0.00840	0.00	0.00	0	124	0	2.34	0.00
1 47D	30.2	1.76	183.5	6.73	4.126	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 48D	0.0	0.00	183.5	6.73	4.096	2	1239	0.00990	0.00	0.00	0	124	0	2.10	0.00
1 49D	39.0	2.21	222.5	7.66	4.802	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 50D	0.0	0.00	222.5	7.66	4.756	2	1500	0.00870	0.00	0.00	0	124	0	2.04	0.00
1 51D	31.8	2.28	254.3	8.54	5.484	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.05
1 52D	0.0	0.00	254.3	8.54	5.445	2	1258	0.01140	0.00	0.00	0	124	0	1.99	0.00
1 53D	23.0	2.12	277.3	9.50	6.122	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1 54D	0.0	0.00	277.3	9.50	6.074	2	1118	0.00760	0.00	0.00	0	124	0	1.99	0.00
1 55D	14.6	1.30	291.9	9.76	6.491	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.10
1 56D	0.0	0.00	291.9	9.76	6.437	2	1256	0.00990	0.00	0.00	0	124	0	1.93	0.00

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* CONFLUENCE Q'S *
* 1 57C TC 1272 QC 17.13 QCD 25.11 QD 7.98 1 57D TD 1196 QD 9.59 QD -0.00 Q 14.00 Q 0.00
* 1 57CD TCD 1269 QCD 25.13 QC 17.10 QD 8.03
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	9.59	775.9	25.13	17.867	2	5	0.00100	0.00	0.00	0	124	0	1.93	0.00
1 58E	12.6	1.13	12.6	1.13	0.360	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.10
1 59E	0.0	0.00	12.6	1.13	0.348	2	1440	0.01150	0.00	0.00	0	124	0	1.93	0.00
1 60E	28.7	2.48	41.3	3.13	1.142	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.10
1 61E	0.0	0.00	41.3	3.13	1.136	2	3334	0.01150	0.00	0.00	0	124	0	1.87	0.00
1 62F	16.5	1.63	16.5	1.63	0.521	0	0	0.00000	0.00	0.00	0	124	30	3.56	0.01
1 63F	0.0	0.00	16.5	1.63	0.520	2	1673	0.02100	0.00	0.00	0	124	0	3.56	0.00
1 64F	24.0	2.33	40.5	3.50	1.266	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 65F	0.0	0.00	40.5	3.50	1.265	2	955	0.02000	0.00	0.00	0	124	0	3.50	0.00
1 66F	33.9	3.19	74.4	6.21	2.286	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1 67F	0.0	0.00	74.4	6.21	2.285	2	1251	0.01830	0.00	0.00	0	124	0	3.39	0.00
1 68F	29.6	2.73	104.0	8.27	3.157	0	0	0.00000	0.00	0.00	0	124	30	3.32	0.01
1 69F	0.0	0.00	104.0	8.27	3.154	2	1122	0.01740	0.00	0.00	0	124	0	3.32	0.00
1 70F	25.9	2.35	129.9	9.80	3.906	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1 71F	0.0	0.00	129.9	9.80	3.898	2	874	0.01460	0.00	0.00	0	124	0	3.27	0.00
1 72F	26.7	2.31	156.6	11.13	4.637	0	0	0.00000	0.00	0.00	0	124	30	3.12	0.01
1 73F	0.0	0.00	156.6	11.13	4.626	2	907	0.01500	0.00	0.00	0	124	0	3.12	0.00
1 74F	29.9	2.61	186.5	12.49	5.462	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1 75F	0.0	0.00	186.5	12.49	5.447	2	876	0.01400	0.00	0.00	0	124	0	3.15	0.00
1 76F	39.5	3.33	226.0	14.32	6.513	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1 77F	0.0	0.00	226.0	14.32	6.494	2	987	0.01600	0.00	0.00	0	124	0	3.04	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	3.14	264.8	16.08	7.500	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 79F	0.0	0.00	264.8	16.08	7.477	2	900	0.01300	0.00	0.00	0	124	0	2.92	0.00
1 80F	39.6	3.08	304.4	17.76	8.461	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 81F	0.0	0.00	304.4	17.76	8.438	2	831	0.01430	0.00	0.00	0	124	0	2.80	0.00
1 82F	39.9	2.98	344.3	19.38	9.391	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 83F	0.0	0.00	344.3	19.38	9.362	2	829	0.01210	0.00	0.00	0	124	0	2.69	0.00
1 84F	39.8	2.84	384.1	20.75	10.270	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 85F	0.0	0.00	384.1	20.75	10.235	2	853	0.01170	0.00	0.00	0	124	0	2.57	0.00
1 86F	39.1	2.79	423.2	21.86	11.128	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 87F	0.0	0.00	423.2	21.86	11.072	2	1094	0.00990	0.00	0.00	0	124	0	2.57	0.00
1 88F	22.9	1.56	446.1	21.95	11.570	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 89F	0.0	0.00	446.1	21.95	11.515	2	845	0.00780	0.00	0.00	0	124	0	2.45	0.00
1 90F	36.2	2.29	482.3	22.43	12.248	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.01
1 91F	0.0	0.00	482.3	22.43	12.130	2	1675	0.00880	0.00	0.00	0	124	0	2.28	0.00
1 92F	23.7	1.38	506.0	22.40	12.572	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.01
1 93F	0.0	0.00	506.0	22.40	12.473	2	1298	0.00950	0.00	0.00	0	124	0	2.10	0.00
1 94F	17.9	1.01	523.9	22.43	12.797	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.01
1 95F	0.0	0.00	523.9	22.43	12.708	2	1020	0.00840	0.00	0.00	0	124	0	2.04	0.00
1 96F	22.5	1.24	546.4	22.55	13.105	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 97F	0.0	0.00	546.4	22.55	12.959	2	1387	0.00640	0.00	0.00	0	124	0	1.99	0.00
1 98F	21.4	1.18	567.8	22.51	13.337	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.01
1 99F	0.0	0.00	567.8	22.51	13.227	2	1222	0.00990	0.00	0.00	0	124	0	1.99	0.00
1 100F	16.7	1.49	584.5	22.63	13.704	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.10
1 101F	0.0	0.00	584.5	22.63	13.595	2	1247	0.01150	0.00	0.00	0	124	0	1.93	0.00
1 102F	23.0	1.99	607.5	22.83	14.231	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.10
1 103F	0.0	0.00	607.5	22.83	13.907	2	3287	0.01110	0.00	0.00	0	124	0	1.87	0.00
1 104G	18.2	1.63	18.2	1.63	0.520	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.10
1 105G	0.0	0.00	18.2	1.63	0.518	2	1898	0.01040	0.00	0.00	0	134	0	1.93	0.00
1 106G	39.9	2.99	58.1	3.77	1.475	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.07
1 107G	0.0	0.00	58.1	3.77	1.466	2	2469	0.00900	0.00	0.00	0	134	0	1.87	0.00
1 109C	21.4	1.85	797.3	25.39	18.459	0	0	0.00000	0.00	0.00	0	124	30	1.87	0.10
1 108CE	41.3	2.56	838.6	26.60	19.594	0	0	0.00000	0.00	0.00	0	124	0	1.87	0.00
1 109CF	607.5	22.28	1446.1	48.37	33.502	0	0	0.00000	0.00	0.00	0	124	0	1.87	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  110C  TC 1275 QC    48.37 QCG    49.46 QG     1.10       1  110G  TG 1195 QG     3.30 QG13942764455120606000 0.00 QEC    41.33 Q
0.00
*                                      1  110CG TCG 1274 QCG    49.47 QC    48.36 QG     1.11
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	3.30	1504.2	49.47	34.480	2	2279	0.00940	0.00	0.00	0	124	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinH.lac Run date: Thu Sep 24 17:17:02 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	1.70	19.0	1.70	0.543	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.10
1	2H	0.0	0.00	19.0	1.70	0.541	2	1718	0.00900	0.00	0.00	0	134	0	1.93	0.00
1	3H	39.5	2.35	58.5	3.26	1.294	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.03
1	4H	0.0	0.00	58.5	3.26	1.291	2	1850	0.01100	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinI.lac Run date: Wed Sep 30 08:34:56 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.02	10.8	1.02	0.325	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1	2I	0.0	0.00	10.8	1.02	0.280	2	1416	0.01690	0.00	0.00	0	124	0	3.39	0.00
1	3I	18.1	1.67	28.9	2.37	0.816	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	4I	0.0	0.00	28.9	2.37	0.814	2	929	0.01630	0.00	0.00	0	124	0	3.33	0.00
1	5I	12.8	1.18	41.7	3.30	1.193	0	0	0.00000	0.00	0.00	0	124	30	3.33	0.01
1	6I	0.0	0.00	41.7	3.30	1.192	2	459	0.01690	0.00	0.00	0	124	0	3.33	0.00
1	7I	16.5	1.50	58.2	4.55	1.671	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	8I	0.0	0.00	58.2	4.55	1.671	2	616	0.01360	0.00	0.00	0	134	0	3.27	0.00
1	9I	25.9	2.35	84.1	6.47	2.423	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	10I	0.0	0.00	84.1	6.47	2.423	2	879	0.01490	0.00	0.00	0	134	0	3.27	0.00
1	11I	26.8	2.39	110.9	8.25	3.186	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1	12I	0.0	0.00	110.9	8.25	3.184	2	968	0.01270	0.00	0.00	0	134	0	3.21	0.00
1	13I	31.1	2.68	142.0	9.97	4.040	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1	14I	0.0	0.00	142.0	9.97	4.028	2	1180	0.01260	0.00	0.00	0	134	0	3.10	0.00
1	15I	37.7	3.18	179.7	11.59	5.046	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	16I	0.0	0.00	179.7	11.59	5.022	2	1443	0.01290	0.00	0.00	0	134	0	3.04	0.00
1	17I	27.6	2.19	207.3	12.06	5.723	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1	18I	0.0	0.00	207.3	12.06	5.702	2	900	0.01190	0.00	0.00	0	134	0	2.86	0.00
1	19I	25.5	1.98	232.8	12.65	6.336	0	0	0.00000	0.00	0.00	0	134	30	2.80	0.01
1	20I	0.0	0.00	232.8	12.65	6.314	2	838	0.01250	0.00	0.00	0	134	0	2.80	0.00
1	21I	37.2	2.78	270.0	13.82	7.203	0	0	0.00000	0.00	0.00	0	134	30	2.69	0.01
1	22I	0.0	0.00	270.0	13.82	7.163	2	1165	0.01030	0.00	0.00	0	134	0	2.69	0.00
1	23I	34.3	2.45	304.3	14.53	7.946	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1	24I	0.0	0.00	304.3	14.53	7.906	2	1034	0.01070	0.00	0.00	0	134	0	2.57	0.00
1	25I	38.0	2.58	342.3	15.41	8.733	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1	26I	0.0	0.00	342.3	15.41	8.686	2	1049	0.01010	0.00	0.00	0	134	0	2.45	0.00
1	27I	39.5	2.43	381.8	16.08	9.464	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.01
1	28I	0.0	0.00	381.8	16.08	9.349	2	2077	0.00930	0.00	0.00	0	134	0	2.22	0.00
1	29I	29.4	2.16	411.2	16.12	10.040	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.05
1	30I	0.0	0.00	411.2	16.12	9.935	2	1661	0.00960	0.00	0.00	0	134	0	2.04	0.00
1	31I	39.6	3.65	450.8	16.71	11.101	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1	32I	0.0	0.00	450.8	16.71	11.012	2	1306	0.00980	0.00	0.00	0	134	0	1.99	0.00
1	33I	39.3	4.90	490.1	18.00	12.581	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.18
1	34I	0.0	0.00	490.1	18.00	12.465	2	1279	0.00660	0.00	0.00	0	134	0	1.99	0.00
1	35I	26.7	2.38	516.8	18.94	13.228	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.10
1	36I	0.0	0.00	516.8	18.94	13.163	2	878	0.01140	0.00	0.00	0	134	0	1.93	0.00
1	37I	37.9	2.70	554.7	20.24	14.025	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.06
1	38I	0.0	0.00	554.7	20.24	13.843	2	1809	0.00760	0.00	0.00	0	134	0	1.87	0.00
1	39J	27.8	2.35	27.8	2.35	0.750	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1	40J	0.0	0.00	27.8	2.35	0.749	2	1645	0.01190	0.00	0.00	0	134	0	3.04	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.52	46.6	3.24	1.237	0	0	0.00000	0.00	0.00	0	134	30	2.92	0.01
1 42J	0.0	0.00	46.6	3.24	1.235	2	760	0.01290	0.00	0.00	0	134	0	2.92	0.00
1 43J	32.3	2.56	78.9	5.17	2.055	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1 44J	0.0	0.00	78.9	5.17	2.054	2	1022	0.01280	0.00	0.00	0	134	0	2.86	0.00
1 45J	32.3	2.46	111.2	6.98	2.840	0	0	0.00000	0.00	0.00	0	134	30	2.74	0.01
1 46J	0.0	0.00	111.2	6.98	2.832	2	1126	0.01150	0.00	0.00	0	134	0	2.74	0.00
1 47J	27.3	1.95	138.5	8.08	3.455	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 48J	0.0	0.00	138.5	8.08	3.441	2	1116	0.01060	0.00	0.00	0	134	0	2.57	0.00
1 49J	22.5	1.53	161.0	8.48	3.930	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1 50J	0.0	0.00	161.0	8.48	3.912	2	1019	0.01040	0.00	0.00	0	134	0	2.45	0.00
1 51J	18.6	1.15	179.6	8.61	4.279	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.01
1 52J	0.0	0.00	179.6	8.61	4.253	2	1085	0.00980	0.00	0.00	0	134	0	2.22	0.00
1 53J	35.3	2.82	214.9	9.21	5.154	0	0	0.00000	0.00	0.00	0	134	30	2.22	0.05
1 54J	0.0	0.00	214.9	9.21	5.117	2	1400	0.01030	0.00	0.00	0	134	0	2.22	0.00
1 55J	40.0	3.89	254.9	11.23	6.360	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.10
1 56J	0.0	0.00	254.9	11.23	6.304	2	1510	0.00790	0.00	0.00	0	134	0	2.10	0.00
1 57J	40.0	3.68	294.9	12.93	7.482	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1 58J	0.0	0.00	294.9	12.93	7.423	2	1410	0.00900	0.00	0.00	0	134	0	1.99	0.00
1 59J	37.3	6.14	332.2	16.37	9.387	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.29
1 60J	0.0	0.00	332.2	16.37	9.318	2	1434	0.00910	0.00	0.00	0	134	0	1.93	0.00
1 61J	28.5	2.47	360.7	17.32	10.106	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 62J	0.0	0.00	360.7	17.32	9.965	2	2082	0.00730	0.00	0.00	0	134	0	1.87	0.00

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* CONFLUENCE Q'S *
* 1 63I TI 1196 QI 19.48 QIJ 35.84 QJ 16.36 1 63J TJ 1199 QJ 16.44
QJ40341102075842103000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QnI 19.45 Q®
0.00
* 1 63IJ TIJ 1198 QIJ 35.90 QI 19.47 QJ 16.43
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	16.44	915.4	35.90	23.807	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinK.lac Run date: Fri Sep 25 09:26:42 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	206.3	516.99	206.3	516.99	24.287	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	206.3	516.99	24.277	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	2.23	227.8	510.90	24.991	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1	4K	0.0	0.00	227.8	510.90	24.987	2	571	0.03050	0.00	0.00	0	124	0	3.74	0.00
1	5K	39.6	4.03	267.4	511.20	26.277	0	0	0.00000	0.00	0.00	0	124	30	3.67	0.01
1	6B	39.7	3.43	39.7	3.43	1.098	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1	6K	0.0	0.00	267.4	511.20	26.296	2	1014	0.02040	0.00	0.00	0	134	0	1.87	0.00
1	7K	39.6	3.98	307.0	500.28	27.569	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1	8K	0.0	0.00	307.0	500.28	27.575	2	1054	0.01830	0.00	0.00	0	124	0	3.62	0.00
1	9K	30.7	2.98	337.7	488.65	28.529	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1	10K	0.0	0.00	337.7	488.65	28.525	2	957	0.01610	0.00	0.00	0	134	0	3.50	0.00
1	11K	33.2	3.18	370.9	477.69	29.542	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1	12K	0.0	0.00	370.9	477.69	29.489	2	1511	0.01470	0.00	0.00	0	134	0	3.45	0.00
1	13L	28.8	3.08	28.8	3.08	0.984	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1	14L	0.0	0.00	28.8	3.08	0.984	2	659	0.02120	0.00	0.00	0	134	0	3.85	0.00
1	15L	24.8	2.62	53.6	5.56	1.820	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1	16L	0.0	0.00	53.6	5.56	1.820	2	724	0.02090	0.00	0.00	0	134	0	3.80	0.00
1	17B	39.1	3.44	78.8	6.87	2.199	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.09
1	18L	0.0	0.00	53.6	5.49	1.819	2	1152	0.01700	0.00	0.00	0	134	0	1.99	0.00
1	19L	21.3	2.14	74.9	6.87	2.504	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1	20L	0.0	0.00	74.9	6.87	2.499	2	1374	0.01640	0.00	0.00	0	134	0	3.62	0.00
1	21L	17.9	1.74	92.8	7.38	3.055	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1	22L	0.0	0.00	92.8	7.38	3.039	2	1523	0.01560	0.00	0.00	0	134	0	3.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   23K  TK 1168 QK   445.31 QKL   450.37 QL     5.06       1   23L  TL 1194 QL     7.08 QL    -0.00 QÄK    53.54 Q□     1.#R
*                                        1   23KL TKL 1168 QKL   450.37 QK   445.31 QL     5.06
*****************************************************************************************************************************
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	7.08	463.7	450.37	32.487	2	709	0.01300	0.00	0.00	0	134	0	3.50	0.00
1	24K	30.9	2.80	494.6	445.79	33.384	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	25K	0.0	0.00	494.6	445.79	33.334	2	778	0.01320	0.00	0.00	0	134	0	3.27	0.00
1	26K	32.3	2.93	526.9	439.28	34.271	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1	27K	0.0	0.00	526.9	439.28	34.183	2	881	0.01070	0.00	0.00	0	134	0	3.27	0.00
1	28K	28.9	2.58	555.8	428.12	35.006	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1	29K	0.0	0.00	555.8	428.12	34.898	2	934	0.01050	0.00	0.00	0	134	0	3.21	0.00
1	30K	21.2	1.85	577.0	413.96	35.491	0	0	0.00000	0.00	0.00	0	134	30	3.15	0.01
1	31K	0.0	0.00	577.0	413.96	35.409	2	853	0.01320	0.00	0.00	0	134	0	3.15	0.00
1	32M	734.5	3101.09	734.5	3101.09	401.401	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 33M	0.0	0.00	734.5	3101.09	400.841	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1 34M	31.7	3.39	766.2	3001.68	401.924	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 35M	0.0	0.00	766.2	3001.68	401.849	2	1319	0.02170	0.00	0.00	0	134	0	3.85	0.00
1 36M	29.5	3.06	795.7	2910.52	402.828	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 37M	0.0	0.00	795.7	2910.52	402.780	2	1114	0.01940	0.00	0.00	0	134	0	3.74	0.00
1 38M	27.9	3.39	823.6	2814.36	403.679	0	0	0.00000	0.00	0.00	0	134	20	3.62	0.01
1 39M	0.0	0.00	823.6	2814.36	403.629	2	1014	0.01810	0.00	0.00	0	134	0	3.62	0.00
1 40M	39.2	3.87	862.8	2754.18	404.868	0	0	0.00000	0.00	0.00	0	134	30	3.56	0.01
1 41M	0.0	0.00	862.8	2754.18	404.868	2	1409	0.01550	0.00	0.00	0	134	0	3.56	0.00
1 42N	297.6	619.95	297.6	619.95	34.887	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 43N	0.0	0.00	297.6	619.95	34.901	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 44N	39.5	4.22	337.1	608.77	36.251	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 45N	0.0	0.00	337.1	608.77	36.249	2	684	0.05170	0.00	0.00	0	134	0	3.85	0.00
1 46N	38.9	4.10	376.0	610.06	37.562	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 47N	0.0	0.00	376.0	610.06	37.554	2	702	0.02820	0.00	0.00	0	134	0	3.80	0.00
1 48N	37.9	3.93	413.9	611.51	38.812	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 49N	0.0	0.00	413.9	611.51	38.807	2	938	0.02310	0.00	0.00	0	134	0	3.74	0.00
1 50N	32.3	3.25	446.2	608.17	39.845	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 51N	0.0	0.00	446.2	608.17	39.759	2	1933	0.00920	0.00	0.00	0	134	0	3.62	0.00

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* CONFLUENCE Q'S *

* 1 52M TM 1161 QM 2641.94 QMN 2921.02 QN 279.09 1 52N TN 1168 QN 552.36 QN 0.00 QãM 1071.12 Q□ 1.#R

* 1 52MN TMN 1161 QMN 2921.02 QM 2641.94 QN 279.09

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 52MN	446.2	552.36	1309.0	2921.02	444.528	2	885	0.02080	0.00	0.00	0	134	0	3.62	0.00
1 53M	18.1	1.70	1327.1	2878.23	445.071	0	0	0.00000	0.00	0.00	0	134	30	3.38	0.01
1 54M	0.0	0.00	1327.1	2878.23	444.827	2	1259	0.00920	0.00	0.00	0	134	0	3.38	0.00
1 55O	35.7	3.59	35.7	3.59	1.147	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 56O	0.0	0.00	35.7	3.59	1.145	2	2369	0.01220	0.00	0.00	0	134	0	3.62	0.00
1 57B	40.0	4.02	118.8	10.89	3.484	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 58O	0.0	0.00	35.7	3.01	1.139	2	1288	0.01250	0.00	0.00	0	134	0	3.62	0.00

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* CONFLUENCE Q'S *

* 1 59M TM 1164 QM 2768.00 QMO 2769.38 QO 1.38 1 59O TO 1201 QO 2.86

QO6803898063794089300000000000000000000000000000000000000000000000000000.00 Q□M 398.21 Q□ 1.#R

* 1 59MO TMO 1164 QMO 2769.38 QM 2768.00 QO 1.38

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	2.86	1362.8	2769.38	445.633	2	934	0.01150	0.00	0.00	0	134	0	3.62	0.00
1 60M	21.5	1.95	1384.3	2733.53	446.257	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 61M	0.0	0.00	1384.3	2733.53	445.816	2	1075	0.01320	0.00	0.00	0	134	0	3.27	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 62M	0.0	0.00	1384.3	2673.62	445.813	2	5	0.01000	0.00	0.00	0	134	0	3.27	0.00

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* CONFLUENCE Q'S *

* 1 63K TK 1181 QK 405.64 QKM 1549.80 QM 1144.16 1 63M TM 1168 QM 2673.56 QM 0.00 Q6K 82.04 Q□ 1.#R *

* 1 63KM TKM 1168 QKM 2755.61 QK 82.04 QM 2673.56

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1384.3	2673.56	1961.3	2755.61	481.219	2	5	0.01000	0.00	0.00	0	134	0	3.27	0.00
1 64K	31.4	2.80	1992.7	2758.15	482.114	0	0	0.00000	0.00	0.00	0	134	30	3.21	0.01
1 65K	0.0	0.00	1992.7	2758.15	481.662	2	784	0.01050	0.00	0.00	0	134	0	3.21	0.00
1 66K	37.2	3.25	2029.9	2731.93	482.702	0	0	0.00000	0.00	0.00	0	124	30	3.15	0.01
1 67K	0.0	0.00	2029.9	2731.93	482.216	2	770	0.01080	0.00	0.00	0	124	0	3.15	0.00
1 68K	34.7	2.93	2064.6	2695.14	483.152	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1 69K	0.0	0.00	2064.6	2695.14	482.431	2	992	0.01000	0.00	0.00	0	124	0	3.04	0.00
1 70K	19.1	1.55	2083.7	2658.73	482.926	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 71K	0.0	0.00	2083.7	2658.73	482.056	2	975	0.00800	0.00	0.00	0	124	0	2.92	0.00
1 72K	10.9	0.87	2094.6	2614.28	482.332	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 73K	0.0	0.00	2094.6	2614.28	481.551	2	715	0.00700	0.00	0.00	0	124	0	2.86	0.00
1 74K	24.2	1.88	2118.8	2579.99	482.152	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 75K	0.0	0.00	2118.8	2579.99	481.155	2	1168	0.01280	0.00	0.00	0	124	0	2.80	0.00
1 76P	48.0	153.64	48.0	153.64	5.673	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	48.0	153.64	5.667	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	2.83	74.5	152.47	6.573	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 79P	0.0	0.00	74.5	152.47	6.573	2	1220	0.00870	0.00	0.00	0	124	0	3.85	0.00
1 80P	39.7	4.12	114.2	122.95	7.892	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 81P	0.0	0.00	114.2	122.95	7.875	2	2419	0.01850	0.00	0.00	0	134	0	3.74	0.00
1 82Q	40.0	4.27	40.0	4.27	1.367	0	0	0.00000	0.00	0.00	0	134	30	3.85	0.01
1 83Q	0.0	0.00	40.0	4.27	1.367	2	1582	0.02720	0.00	0.00	0	134	0	3.85	0.00
1 84Q	40.0	4.15	80.0	7.83	2.695	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 85Q	0.0	0.00	80.0	7.83	2.692	2	1847	0.02110	0.00	0.00	0	134	0	3.74	0.00

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* CONFLUENCE Q'S *

* 1 86P TP 1168 QP 92.70 QPQ 98.99 QQ 6.28 1 86Q TQ 1181 QQ 7.47 QQ -0.00 QíP 43.68 Q□ 1.#R *

* 1 86PQ TPQ 1169 QPQ 99.06 QP 92.60 QQ 6.45

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	7.47	194.2	99.06	10.548	2	949	0.02000	0.00	0.00	0	134	0	3.74	0.00
1 87P	40.0	4.15	234.2	99.07	11.876	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 88P	0.0	0.00	234.2	99.07	11.848	2	856	0.01150	0.00	0.00	0	134	0	3.74	0.00
1 89P	40.0	3.83	274.2	97.55	13.073	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1 90P	0.0	0.00	274.2	97.55	13.030	2	1066	0.01300	0.00	0.00	0	134	0	3.45	0.00
1 91P	40.0	3.76	314.2	94.76	14.234	0	0	0.00000	0.00	0.00	0	134	30	3.39	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 92P	0.0	0.00	314.2	94.76	14.163	2	1323	0.01000	0.00	0.00	0	134	0	3.39	0.00
1 93P	38.5	3.49	352.7	88.15	15.281	0	0	0.00000	0.00	0.00	0	134	30	3.27	0.01
1 94P	0.0	0.00	352.7	88.15	15.206	2	1231	0.00980	0.00	0.00	0	134	0	3.27	0.00
1 95P	32.9	2.93	385.6	84.07	16.143	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 96P	0.0	0.00	385.6	84.07	15.946	2	853	0.00100	0.00	0.00	0	124	0	3.21	0.00
1 97P	32.3	2.78	417.9	72.21	16.835	0	0	0.00000	0.00	0.00	0	124	30	3.10	0.01
1 98P	0.0	0.00	417.9	72.21	16.754	2	903	0.00830	0.00	0.00	0	124	0	3.10	0.00
1 99P	36.0	2.98	453.9	71.49	17.706	0	0	0.00000	0.00	0.00	0	124	30	2.98	0.01
1 100P	0.0	0.00	453.9	71.49	17.590	2	1173	0.00770	0.00	0.00	0	124	0	2.98	0.00
1 101P	22.9	1.86	476.8	69.59	18.184	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1 102P	0.0	0.00	476.8	69.59	18.116	2	832	0.01210	0.00	0.00	0	124	0	2.92	0.00
1 103P	12.6	0.98	489.4	69.17	18.429	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1 104P	0.0	0.00	489.4	69.17	18.341	2	949	0.01050	0.00	0.00	0	124	0	2.80	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1178 QK 2539.97 QKP 2559.84 QP 19.87 1 105P TP 1234 QP 68.20
QP1784004567430033200000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QZK 392.76 Q□ 1.#R
* 1 105KP TKP 1178 QKP 2559.84 QK 2539.97 QP 19.87
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	489.4	68.20	2608.2	2559.84	499.491	2	5	0.01000	0.00	0.00	0	124	0	2.80	0.00
1 106K	32.1	2.44	2640.3	2561.65	500.272	0	0	0.00000	0.00	0.00	0	124	30	2.74	0.01
1 107K	0.0	0.00	2640.3	2561.65	499.337	2	913	0.01100	0.00	0.00	0	124	0	2.74	0.00
1 108K	37.7	2.82	2678.0	2543.17	500.237	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 109K	0.0	0.00	2678.0	2543.17	499.081	2	1081	0.01000	0.00	0.00	0	124	0	2.69	0.00
1 110K	39.4	2.81	2717.4	2509.72	499.980	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 111K	0.0	0.00	2717.4	2509.72	498.914	2	1044	0.01240	0.00	0.00	0	124	0	2.57	0.00
1 112K	39.8	2.71	2757.2	2483.43	499.779	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.01
1 113K	0.0	0.00	2757.2	2483.43	498.593	2	1121	0.01110	0.00	0.00	0	124	0	2.45	0.00
1 114K	40.0	2.60	2797.2	2453.61	499.424	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.01
1 115K	0.0	0.00	2797.2	2453.61	498.290	2	960	0.00950	0.00	0.00	0	124	0	2.34	0.00
1 116K	39.8	2.63	2837.0	2426.76	499.133	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.02
1 117K	0.0	0.00	2837.0	2426.76	498.052	2	919	0.00990	0.00	0.00	0	124	0	2.22	0.00
1 118K	39.8	3.35	2876.8	2402.86	499.124	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.07
1 119K	0.0	0.00	2876.8	2402.86	498.433	2	835	0.01980	0.00	0.00	0	134	0	2.10	0.00
1 120K	22.4	2.02	2899.2	2390.89	499.079	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.09
1 121K	0.0	0.00	2899.2	2390.89	497.751	2	1042	0.00770	0.00	0.00	0	134	0	2.04	0.00
1 122R	21.6	1.89	21.6	1.89	0.604	0	0	0.00000	0.00	0.00	0	134	30	3.15	0.01
1 123R	0.0	0.00	21.6	1.89	0.603	2	1940	0.01230	0.00	0.00	0	134	0	3.15	0.00
1 124R	32.5	2.80	54.1	3.84	1.497	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1 125R	0.0	0.00	54.1	3.84	1.496	2	1189	0.01320	0.00	0.00	0	134	0	3.10	0.00
1 126R	23.9	2.02	78.0	5.30	2.141	0	0	0.00000	0.00	0.00	0	134	30	3.04	0.01
1 127R	0.0	0.00	78.0	5.30	2.140	2	803	0.01280	0.00	0.00	0	134	0	3.04	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 128R	28.8	2.48	106.8	7.18	2.932	0	0	0.00000	0.00	0.00	0	134	30	3.10	0.01
1 129R	0.0	0.00	106.8	7.18	2.925	2	966	0.01040	0.00	0.00	0	134	0	3.10	0.00
1 130R	29.3	2.37	136.1	8.65	3.684	0	0	0.00000	0.00	0.00	0	134	30	2.92	0.01
1 131R	0.0	0.00	136.1	8.65	3.674	2	795	0.00960	0.00	0.00	0	134	0	2.92	0.00
1 132R	27.5	2.18	163.6	9.88	4.373	0	0	0.00000	0.00	0.00	0	134	30	2.86	0.01
1 133R	0.0	0.00	163.6	9.88	4.361	2	759	0.01050	0.00	0.00	0	134	0	2.86	0.00
1 134R	27.3	2.12	190.9	11.00	5.039	0	0	0.00000	0.00	0.00	0	134	30	2.80	0.01
1 135R	0.0	0.00	190.9	11.00	5.024	2	740	0.00980	0.00	0.00	0	134	0	2.80	0.00
1 136R	29.4	2.24	220.3	12.10	5.739	0	0	0.00000	0.00	0.00	0	134	30	2.74	0.01
1 137R	0.0	0.00	220.3	12.10	5.719	2	849	0.01000	0.00	0.00	0	134	0	2.74	0.00
1 138R	36.9	2.76	257.2	13.40	6.600	0	0	0.00000	0.00	0.00	0	134	30	2.69	0.01
1 139R	0.0	0.00	257.2	13.40	6.572	2	960	0.01020	0.00	0.00	0	134	0	2.69	0.00
1 140R	27.6	1.97	284.8	14.05	7.202	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 141R	0.0	0.00	284.8	14.05	7.181	2	705	0.01250	0.00	0.00	0	134	0	2.57	0.00
1 142R	36.0	2.45	320.8	15.18	7.964	0	0	0.00000	0.00	0.00	0	134	30	2.45	0.01
1 143R	0.0	0.00	320.8	15.18	7.928	2	966	0.01040	0.00	0.00	0	134	0	2.45	0.00
1 144R	39.6	2.51	360.4	16.05	8.730	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 145R	0.0	0.00	360.4	16.05	8.681	2	1078	0.00940	0.00	0.00	0	134	0	2.28	0.00
1 146R	27.4	1.60	387.8	16.22	9.192	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.01
1 147R	0.0	0.00	387.8	16.22	9.165	2	693	0.01440	0.00	0.00	0	134	0	2.10	0.00
1 148R	27.6	2.44	415.4	16.98	9.946	0	0	0.00000	0.00	0.00	0	134	30	2.10	0.08
1 149R	0.0	0.00	415.4	16.98	9.878	2	1266	0.00970	0.00	0.00	0	134	0	2.10	0.00
1 150R	20.7	1.95	436.1	17.29	10.503	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.10
1 151R	0.0	0.00	436.1	17.29	10.419	2	1379	0.00960	0.00	0.00	0	134	0	2.04	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1  152K  TK 1192 QK  2363.92 QKR  2380.46 QR    16.54       1  152R  TR 1210 QR    17.22 QR     0.00 QÄK  1398.72 Q□     1.#R
*                                   1  152KR TKR 1192 QKR  2380.46 QK  2363.92 QR    16.54
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	17.22	3335.3	2380.46	506.626	2	1212	0.00830	0.00	0.00	0	134	0	2.04	0.00
1 153K	38.8	3.25	3374.1	2338.69	507.667	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.08
1 154K	0.0	0.00	3374.1	2338.69	505.169	2	2066	0.00970	0.00	0.00	0	134	0	1.99	0.00
1 155K	27.3	2.33	3401.4	2256.36	505.914	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.09
1 156K	0.0	0.00	3401.4	2256.36	503.670	2	1710	0.00880	0.00	0.00	0	134	0	1.93	0.00
1 157K	22.1	1.91	3423.5	2203.01	504.281	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 158K	0.0	0.00	3423.5	2203.01	502.023	2	1697	0.00870	0.00	0.00	0	134	0	1.87	0.00
1 159S	39.3	3.51	39.3	3.51	1.122	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.10
1 160S	0.0	0.00	39.3	3.51	1.120	2	2302	0.01100	0.00	0.00	0	134	0	1.93	0.00
1 161S	36.7	3.18	76.0	5.20	2.136	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 162S	0.0	0.00	76.0	5.20	2.124	2	2012	0.01210	0.00	0.00	0	134	0	1.87	0.00
1 163T	16.1	1.48	16.1	1.48	0.474	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1 164T	0.0	0.00	16.1	1.48	0.472	2	1839	0.00880	0.00	0.00	0	134	0	1.99	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 165T	28.5	2.62	44.6	3.29	1.312	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1 166T	0.0	0.00	44.6	3.29	1.311	2	887	0.01190	0.00	0.00	0	134	0	1.99	0.00
1 167T	38.0	3.29	82.6	6.19	2.362	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 168T	0.0	0.00	82.6	6.19	2.360	2	1078	0.00880	0.00	0.00	0	134	0	1.87	0.00
1 169T	39.8	3.44	122.4	8.68	3.461	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 170T	0.0	0.00	122.4	8.68	3.450	2	1337	0.01200	0.00	0.00	0	134	0	1.87	0.00
1 171T	29.2	2.53	151.6	9.94	4.258	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 172T	0.0	0.00	151.6	9.94	4.224	2	1813	0.00980	0.00	0.00	0	134	0	1.87	0.00
1 173KS	76.0	4.84	3499.5	2163.39	504.147	0	0	0.00000	0.00	0.00	0	134	0	1.87	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  174K  TK 1206 QK  2163.39 QKT  2172.02 QT     8.63       1  174T  TT 1193 QT     9.30 QT    -0.00 Q?K   739.48 Q□     1.#R
*                                   1  174KT TKT 1206 QKT  2172.02 QK  2163.39 QT     8.63
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	9.30	3651.1	2172.02	506.947	2	1115	0.00920	0.00	0.00	0	134	0	1.87	0.00
1 175K	28.5	2.47	3679.6	2156.79	507.735	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 176K	0.0	0.00	3679.6	2156.79	505.162	2	1834	0.00810	0.00	0.00	0	134	0	1.87	0.00
1 177U	29.4	2.54	29.4	2.54	0.813	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 178U	29.1	2.52	58.5	5.06	1.619	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.10
1 179U	0.0	0.00	58.5	5.06	1.606	2	3079	0.00820	0.00	0.00	0	134	0	1.87	0.00
1 180U	31.8	2.26	90.3	4.75	2.329	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.06
1 181U	0.0	0.00	90.3	4.75	2.304	2	2207	0.01120	0.00	0.00	0	134	0	1.87	0.00
1 182U	21.3	1.27	111.6	4.68	2.710	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.03
1 183U	0.0	0.00	111.6	4.68	2.660	2	2448	0.00810	0.00	0.00	0	134	0	1.87	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  184K  TK 1213 QK  2107.51 QKU  2111.89 QU     4.38       1  184U  TU 1233 QU     4.57
QU61107886431188709000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000.00 Q•K  1341.83 Q□     1.#R
*                                   1  184KU TKU 1213 QKU  2111.89 QK  2107.51 QU     4.38
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	4.57	3791.2	2111.89	507.816	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinV.lac Run date: Thu Sep 24 17:40:30 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	1.88	23.8	1.88	0.600	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.08
1	2V	0.0	0.00	23.8	1.88	0.599	2	1412	0.01030	0.00	0.00	0	134	0	1.87	0.00
1	3V	39.4	2.35	63.2	3.61	1.350	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.03
1	4V	0.0	0.00	63.2	3.61	1.349	2	1046	0.01150	0.00	0.00	0	134	0	1.87	0.00
1	5V	39.9	2.84	103.1	5.76	2.256	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.06
1	6V	0.0	0.00	103.1	5.76	2.255	2	892	0.01000	0.00	0.00	0	134	0	1.87	0.00
1	7V	40.0	2.85	143.1	7.87	3.165	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.06
1	8V	0.0	0.00	143.1	7.87	3.158	2	964	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\BasinW.lac Run date: Fri Sep 25 07:57:18 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	2.03	24.1	2.03	0.650	0	0	0.00000	0.00	0.00	0	124	30	3.04	0.01
1	2B	27.6	1.43	27.6	1.43	0.458	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	2W	0.0	0.00	24.1	2.03	0.649	2	1848	0.01050	0.00	0.00	0	134	0	1.87	0.00
1	3W	22.3	1.81	46.4	3.05	1.227	0	0	0.00000	0.00	0.00	0	124	30	2.92	0.01
1	4B	15.1	1.39	42.7	2.82	0.903	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1	4W	0.0	0.00	46.4	3.05	1.226	2	1007	0.01070	0.00	0.00	0	134	0	1.99	0.00
1	5W	26.9	2.09	73.3	4.51	1.895	0	0	0.00000	0.00	0.00	0	124	30	2.80	0.01
1	6W	0.0	0.00	73.3	4.51	1.891	2	1111	0.00990	0.00	0.00	0	124	0	2.80	0.00
1	7W	24.7	1.84	98.0	5.65	2.481	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1	8W	0.0	0.00	98.0	5.65	2.468	2	1118	0.00710	0.00	0.00	0	124	0	2.69	0.00
1	9W	35.1	2.50	133.1	6.82	3.269	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	10W	0.0	0.00	133.1	6.82	3.250	2	1301	0.01000	0.00	0.00	0	124	0	2.57	0.00
1	11W	24.8	1.86	157.9	7.48	3.843	0	0	0.00000	0.00	0.00	0	124	30	2.51	0.02
1	12W	0.0	0.00	157.9	7.48	3.827	2	779	0.00750	0.00	0.00	0	124	0	2.51	0.00
1	13W	36.2	3.19	194.1	9.37	4.847	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.05
1	14W	0.0	0.00	194.1	9.37	4.831	2	915	0.01440	0.00	0.00	0	124	0	2.45	0.00
1	15W	33.0	3.10	227.1	11.52	5.821	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.07
1	16W	0.0	0.00	227.1	11.52	5.805	2	796	0.01390	0.00	0.00	0	124	0	2.34	0.00
1	17W	39.5	4.06	266.6	14.59	7.103	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.10
1	18W	0.0	0.00	266.6	14.59	7.079	2	930	0.01200	0.00	0.00	0	124	0	2.22	0.00
1	19W	32.8	3.19	299.4	16.80	8.098	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	20W	0.0	0.00	299.4	16.80	8.072	2	774	0.00940	0.00	0.00	0	124	0	2.10	0.00
1	21W	35.4	3.44	334.8	18.96	9.172	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	22W	0.0	0.00	334.8	18.96	9.126	2	1066	0.00820	0.00	0.00	0	124	0	2.10	0.00
1	23W	19.1	1.80	353.9	19.22	9.703	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.10
1	24W	0.0	0.00	353.9	19.22	9.652	2	860	0.00630	0.00	0.00	0	134	0	2.04	0.00
1	25W	11.4	1.08	365.3	19.29	9.996	0	0	0.00000	0.00	0.00	0	134	30	2.04	0.10
1	26W	0.0	0.00	365.3	19.29	9.951	2	684	0.00730	0.00	0.00	0	134	0	2.04	0.00
1	27W	22.7	2.09	388.0	19.71	10.620	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.10
1	28W	0.0	0.00	388.0	19.71	10.501	2	1949	0.01030	0.00	0.00	0	134	0	1.99	0.00
1	29X	7.3	0.71	7.3	0.71	0.227	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	30X	0.0	0.00	7.3	0.71	0.131	2	1088	0.00760	0.00	0.00	0	124	0	2.10	0.00
1	31X	23.1	2.18	30.4	2.56	0.828	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.10
1	32X	0.0	0.00	30.4	2.56	0.827	2	882	0.01350	0.00	0.00	0	124	0	2.04	0.00
1	33X	13.0	1.20	43.4	3.54	1.210	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1	34X	0.0	0.00	43.4	3.54	1.209	2	429	0.01290	0.00	0.00	0	124	0	1.99	0.00
1	35X	18.5	1.70	61.9	5.00	1.754	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1	36X	0.0	0.00	61.9	5.00	1.754	2	1115	0.01280	0.00	0.00	0	124	0	1.99	0.00
1	37WX	61.9	4.84	449.9	21.89	12.210	2	642	0.00980	0.00	0.00	0	124	0	1.99	0.00
1	38W	19.2	1.71	469.1	22.22	12.758	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.10

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	39W	0.0	0.00	469.1	22.22	12.648	2	1430	0.00960	0.00	0.00	0	124	0	1.93	0.00
1	40Y	6.4	0.62	6.4	0.62	0.199	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	41Y	0.0	0.00	6.4	0.62	0.099	2	970	0.00890	0.00	0.00	0	124	0	2.10	0.00
1	42Y	11.2	1.09	17.6	1.50	0.447	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	43Y	0.0	0.00	17.6	1.50	0.423	2	831	0.01140	0.00	0.00	0	124	0	2.10	0.00
1	44Y	15.6	1.47	33.2	2.70	0.894	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.10
1	45Y	0.0	0.00	33.2	2.70	0.892	2	883	0.01070	0.00	0.00	0	124	0	2.04	0.00
1	46Y	9.5	0.87	42.7	3.28	1.172	0	0	0.00000	0.00	0.00	0	124	30	1.99	0.10
1	47Y	0.0	0.00	42.7	3.28	1.170	2	390	0.01680	0.00	0.00	0	124	0	1.99	0.00
1	48Y	13.1	1.17	55.8	4.18	1.545	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.10
1	49Y	0.0	0.00	55.8	4.18	1.544	2	658	0.01670	0.00	0.00	0	124	0	1.93	0.00
1	50Y	24.4	1.69	80.2	5.45	2.086	0	0	0.00000	0.00	0.00	0	124	30	1.93	0.05
1	51Y	0.0	0.00	80.2	5.45	2.085	2	1416	0.01050	0.00	0.00	0	124	0	1.93	0.00
1	52WY	80.2	5.21	549.3	25.41	14.570	2	1623	0.00800	0.00	0.00	0	124	0	1.93	0.00
1	53Z	12.8	1.39	12.8	1.39	0.443	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.10
1	54Z	0.0	0.00	12.8	1.39	0.442	2	1273	0.01320	0.00	0.00	0	124	0	2.34	0.00
1	55Z	24.9	2.63	37.7	3.58	1.282	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.10
1	56Z	0.0	0.00	37.7	3.58	1.281	2	1086	0.01170	0.00	0.00	0	124	0	2.28	0.00
1	57Z	25.8	2.58	63.5	5.57	2.106	0	0	0.00000	0.00	0.00	0	124	30	2.16	0.10
1	58Z	0.0	0.00	63.5	5.57	2.105	2	863	0.01350	0.00	0.00	0	124	0	2.16	0.00
1	59Z	30.1	2.92	93.6	7.82	3.040	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1	60Z	0.0	0.00	93.6	7.82	3.037	2	922	0.01230	0.00	0.00	0	124	0	2.10	0.00
1	61Z	28.0	2.64	121.6	9.66	3.882	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.10
1	62Z	0.0	0.00	121.6	9.66	3.873	2	907	0.01020	0.00	0.00	0	124	0	2.04	0.00
1	63Z	32.7	3.09	154.3	11.54	4.860	0	0	0.00000	0.00	0.00	0	124	30	2.04	0.10
1	64Z	0.0	0.00	154.3	11.54	4.843	2	1048	0.01130	0.00	0.00	0	124	0	2.04	0.00
1	65Z	25.7	1.84	180.0	12.26	5.432	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.05
1	66Z	0.0	0.00	180.0	12.26	5.412	2	1003	0.01240	0.00	0.00	0	134	0	1.99	0.00
1	67Z	9.1	0.50	189.1	12.16	5.573	0	0	0.00000	0.00	0.00	0	134	30	1.99	0.01
1	68Z	0.0	0.00	189.1	12.16	5.564	2	399	0.01470	0.00	0.00	0	134	0	1.99	0.00
1	69Z	24.4	1.31	213.5	12.54	5.982	0	0	0.00000	0.00	0.00	0	134	30	1.93	0.01
1	70Z	0.0	0.00	213.5	12.54	5.954	2	1072	0.01280	0.00	0.00	0	134	0	1.93	0.00
1	71Z	27.0	1.40	240.5	12.79	6.402	0	0	0.00000	0.00	0.00	0	134	30	1.87	0.01
1	72Z	0.0	0.00	240.5	12.79	6.352	2	1351	0.00920	0.00	0.00	0	134	0	1.87	0.00
1	73WZ	240.5	12.61	789.8	37.36	20.921	2	5	0.01000	0.00	0.00	0	134	0	1.87	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\Basin100A.lac Run date: Thu Sep 24 18:00:25 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	0.89	8.2	0.89	0.284	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.10
1 102A	0.0	0.00	8.2	0.89	0.210	2	1080	0.01170	0.00	0.00	0	124	0	2.34	0.00
1 103A	17.4	1.79	25.6	2.40	0.782	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.10
1 104A	0.0	0.00	25.6	2.40	0.781	2	846	0.01260	0.00	0.00	0	124	0	2.22	0.00
1 105A	18.4	1.84	44.0	3.92	1.369	0	0	0.00000	0.00	0.00	0	124	30	2.16	0.10
1 106A	0.0	0.00	44.0	3.92	1.368	2	782	0.01420	0.00	0.00	0	124	0	2.16	0.00
1 107A	24.3	2.36	68.3	5.83	2.123	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1 108A	0.0	0.00	68.3	5.83	2.123	2	822	0.01180	0.00	0.00	0	124	0	2.10	0.00
1 109A	21.0	2.04	89.3	7.31	2.775	0	0	0.00000	0.00	0.00	0	124	30	2.10	0.10
1 110A	0.0	0.00	89.3	7.31	2.774	2	717	0.01020	0.00	0.00	0	124	0	2.10	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 5 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q5\Basin100B.lac Run date: Tue Sep 29 15:51:45 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	2.72	30.0	2.72	0.871	0	0	0.00000	0.00	0.00	0	124	30	3.27	0.01
1 14B	22.1	2.04	52.1	4.77	1.524	0	0	0.00000	0.00	0.00	0	134	30	3.33	0.01
1 20B	38.7	3.64	90.8	8.41	2.689	0	0	0.00000	0.00	0.00	0	124	30	3.39	0.01
1 21B	10.7	1.01	101.5	9.41	3.011	0	0	0.00000	0.00	0.00	0	134	30	3.39	0.01
1 28B	24.5	2.46	126.0	11.88	3.798	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 29B	7.6	0.76	133.6	12.64	4.043	0	0	0.00000	0.00	0.00	0	124	30	3.62	0.01
1 35B	15.5	1.63	149.1	14.27	4.565	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 36B	29.0	3.10	178.1	17.37	5.557	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 100B	67.1	239.25	245.2	255.96	13.497	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.2	255.96	13.500	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	2.87	271.2	253.29	14.416	0	0	0.00000	0.00	0.00	0	124	30	3.97	0.01
1 103B	0.0	0.00	271.2	253.29	14.419	2	1058	0.04570	0.00	0.00	0	124	0	3.97	0.00
1 104B	24.8	2.65	296.0	244.05	15.267	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 105B	0.0	0.00	296.0	244.05	15.256	2	1470	0.02950	0.00	0.00	0	124	0	3.85	0.00
1 106B	18.1	1.88	314.1	216.52	15.857	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1 107B	0.0	0.00	314.1	216.52	15.848	2	959	0.01820	0.00	0.00	0	124	0	3.74	0.00
1 108C	421.9	878.89	421.9	878.89	49.459	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	421.9	878.89	49.498	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	4.31	461.6	867.54	50.877	0	0	0.00000	0.00	0.00	0	124	30	3.91	0.01
1 111C	0.0	0.00	461.6	867.54	50.900	2	1568	0.03970	0.00	0.00	0	124	0	3.91	0.00
1 112D	37.7	4.09	37.7	4.09	1.309	0	0	0.00000	0.00	0.00	0	124	30	3.91	0.01
1 113D	0.0	0.00	37.7	4.09	1.308	2	2150	0.02780	0.00	0.00	0	124	0	3.91	0.00

****
* CONFLUENCE Q'S *
* 1 114C TC 1159 QC 855.38 QCD 857.75 QD 2.38 1 114D TD 1177 QD 3.74 QD-
902777721779492300000000000000000000000000000.00 QÞC 99.99 QK 0.00
* 1 114CD TCD 1159 QCD 857.75 QC 855.38 QD 2.38
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	3.74	499.3	857.75	52.203	2	1532	0.02480	0.00	0.00	0	124	0	3.91	0.00
1 115C	12.0	1.25	511.3	842.74	52.602	0	0	0.00000	0.00	0.00	0	124	30	3.74	0.01
1 116C	0.0	0.00	511.3	842.74	52.572	2	949	0.01960	0.00	0.00	0	124	0	3.74	0.00

****
* CONFLUENCE Q'S *
* 1 117B TB 1162 QB 199.10 QBC 988.35 QC 789.25 1 117C TC 1164 QC 835.08 QC -0.00 Q4B 175.82 QK 0.00
* 1 117BC TBC 1163 QBC 1016.46 QB 191.68 QC 824.78
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	511.3	835.08	825.4	1016.46	68.333	2	1210	0.01230	0.00	0.00	0	124	0	3.74	0.00
1 118B	34.1	3.31	859.5	989.89	69.392	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 119B	0.0	0.00	859.5	989.89	69.315	2	944	0.01350	0.00	0.00	0	124	0	3.50	0.00
1 120E	31.1	3.32	31.1	3.32	1.063	0	0	0.00000	0.00	0.00	0	124	30	3.85	0.01
1 121E	0.0	0.00	31.1	3.32	1.062	2	2049	0.03100	0.00	0.00	0	124	0	3.85	0.00
1 122E	18.9	1.99	50.0	4.76	1.700	0	0	0.00000	0.00	0.00	0	124	30	3.80	0.01
1 123E	0.0	0.00	50.0	4.76	1.699	2	866	0.03040	0.00	0.00	0	124	0	3.80	0.00
1 124E	37.4	3.82	87.4	7.97	2.921	0	0	0.00000	0.00	0.00	0	134	30	3.68	0.01
1 125E	0.0	0.00	87.4	7.97	2.917	2	1753	0.01750	0.00	0.00	0	134	0	3.68	0.00
1 126E	21.3	2.10	108.7	9.04	3.590	0	0	0.00000	0.00	0.00	0	134	30	3.56	0.01
1 127E	0.0	0.00	108.7	9.04	3.583	2	919	0.01770	0.00	0.00	0	134	0	3.56	0.00
1 128E	16.6	1.95	125.3	9.40	4.099	0	0	0.00000	0.00	0.00	0	134	20	3.50	0.01
1 129E	0.0	0.00	125.3	9.40	4.088	2	904	0.01440	0.00	0.00	0	134	0	3.50	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                   *
* 1  130B  TB 1168 QB   975.58 QBE   983.40 QE     7.82       1  130E  TE 1189 QE     9.30 QE-
1447294168256208200000000000000000000000000000000000000000000000000000000000000000000000000000.00 QÐB   189.36 QK     0.00
*                                        1  130BE TBE 1168 QBE   983.40 QB   975.58 QE     7.82
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	9.30	984.8	983.40	73.247	2	1100	0.01140	0.00	0.00	0	134	0	3.50	0.00
1 131F	13.6	1.43	13.6	1.43	0.459	0	0	0.00000	0.00	0.00	0	134	30	3.80	0.01
1 132F	0.0	0.00	13.6	1.43	0.457	2	906	0.03180	0.00	0.00	0	134	0	3.80	0.00
1 133F	26.6	2.76	40.2	4.05	1.340	0	0	0.00000	0.00	0.00	0	134	30	3.74	0.01
1 134F	0.0	0.00	40.2	4.05	1.340	2	1224	0.02140	0.00	0.00	0	134	0	3.74	0.00
1 135F	37.2	3.74	77.4	7.24	2.535	0	0	0.00000	0.00	0.00	0	134	30	3.62	0.01
1 136F	0.0	0.00	77.4	7.24	2.533	2	1787	0.01630	0.00	0.00	0	134	0	3.62	0.00
1 137F	24.5	2.38	101.9	8.46	3.294	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 138F	0.0	0.00	101.9	8.46	3.289	2	979	0.01940	0.00	0.00	0	134	0	3.50	0.00
1 139F	14.3	1.37	116.2	9.11	3.727	0	0	0.00000	0.00	0.00	0	134	30	3.45	0.01
1 140F	0.0	0.00	116.2	9.11	3.719	2	790	0.01440	0.00	0.00	0	134	0	3.45	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                   *
* 1  141B  TB 1171 QB   960.67 QBF   968.17 QF     7.50       1  141F  TF 1185 QF     8.97 QF     0.00 QQB   369.18 QK     0.00
*                                        1  141BF TBF 1171 QBF   968.17 QB   960.67 QF     7.50
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	8.97	1101.0	968.17	76.738	2	1041	0.00840	0.00	0.00	0	134	0	3.45	0.00
1 142B	27.0	2.41	1128.0	943.40	77.508	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 143B	0.0	0.00	1128.0	943.40	77.344	2	872	0.01000	0.00	0.00	0	124	0	3.21	0.00
1 144B	24.7	2.13	1152.7	932.11	78.024	0	0	0.00000	0.00	0.00	0	124	30	3.10	0.01
1 145B	0.0	0.00	1152.7	932.11	77.763	2	1127	0.01000	0.00	0.00	0	124	0	3.10	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 5 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 5

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 146B	26.0	2.15	1178.7	909.02	78.450	0	0	0.00000	0.00	0.00	0	124	30	2.98	0.01
1 147B	0.0	0.00	1178.7	909.02	78.168	2	1083	0.00870	0.00	0.00	0	124	0	2.98	0.00
1 148B	22.6	1.79	1201.3	884.68	78.742	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 149B	0.0	0.00	1201.3	884.68	78.474	2	872	0.00640	0.00	0.00	0	124	0	2.86	0.00
1 150B	28.5	2.13	1229.8	865.04	79.155	0	0	0.00000	0.00	0.00	0	124	30	2.69	0.01
1 151B	0.0	0.00	1229.8	865.04	78.816	2	1358	0.01000	0.00	0.00	0	124	0	2.69	0.00
1 152B	23.4	1.69	1253.2	835.07	79.356	0	0	0.00000	0.00	0.00	0	124	30	2.60	0.01
1 153B	0.0	0.00	1253.2	835.07	79.031	2	1217	0.00940	0.00	0.00	0	124	0	2.60	0.00
1 154B	20.9	1.53	1274.1	809.59	79.519	0	0	0.00000	0.00	0.00	0	124	30	2.45	0.02
1 155B	0.0	0.00	1274.1	809.59	79.341	2	807	0.01170	0.00	0.00	0	124	0	2.45	0.00
1 156B	26.1	2.24	1300.2	803.03	80.059	0	0	0.00000	0.00	0.00	0	124	30	2.39	0.05
1 157B	0.0	0.00	1300.2	803.03	79.824	2	966	0.01090	0.00	0.00	0	124	0	2.39	0.00
1 158B	26.4	2.22	1326.6	793.14	80.535	0	0	0.00000	0.00	0.00	0	124	30	2.34	0.05
1 159B	0.0	0.00	1326.6	793.14	80.281	2	973	0.01030	0.00	0.00	0	124	0	2.34	0.00
1 160B	29.7	2.44	1356.3	780.27	81.060	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.05
1 161B	0.0	0.00	1356.3	780.27	80.749	2	1044	0.00880	0.00	0.00	0	124	0	2.28	0.00
1 162B	27.9	2.48	1384.2	762.08	81.543	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.07
1 163B	0.0	0.00	1384.2	762.08	81.230	2	1101	0.01000	0.00	0.00	0	124	0	2.22	0.00
1 164B	25.2	2.59	1409.4	743.71	82.058	0	0	0.00000	0.00	0.00	0	124	30	2.22	0.10
1 165B	0.0	0.00	1409.4	743.71	81.753	2	1034	0.00970	0.00	0.00	0	124	0	2.22	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinA.lac Run date: Fri Sep 25 08:04:20 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	3.33	40.0	3.33	1.065	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1	2A	0.0	0.00	40.0	3.33	1.062	2	2398	0.00920	0.00	0.00	0	124	0	3.00	0.00
1	3A	39.8	2.99	79.8	4.68	2.020	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.01
1	4A	0.0	0.00	79.8	4.68	2.010	2	1498	0.00970	0.00	0.00	0	124	0	2.71	0.00
1	5A	38.3	2.73	118.1	6.30	2.884	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	6A	0.0	0.00	118.1	6.30	2.869	2	1253	0.00910	0.00	0.00	0	124	0	2.57	0.00
1	7A	32.4	2.25	150.5	7.46	3.589	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	8A	0.0	0.00	150.5	7.46	3.571	2	1114	0.01010	0.00	0.00	0	124	0	2.50	0.00
1	9A	27.7	2.70	178.2	8.83	4.434	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.07
1	10A	0.0	0.00	178.2	8.83	4.406	2	1242	0.00870	0.00	0.00	0	124	0	2.43	0.00
1	11A	33.9	3.81	212.1	10.82	5.625	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1	12A	0.0	0.00	212.1	10.82	5.585	2	1469	0.00990	0.00	0.00	0	124	0	2.43	0.00
1	13A	38.9	4.25	251.0	13.04	6.944	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.10
1	14A	0.0	0.00	251.0	13.04	6.902	2	1177	0.00870	0.00	0.00	0	134	0	2.36	0.00
1	15A	38.3	4.04	289.3	15.23	8.194	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1	16A	0.0	0.00	289.3	15.23	8.157	2	994	0.01040	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinB.lac Run date: Fri Sep 25 08:09:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	2.48	22.1	2.48	0.795	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1	2B	0.0	0.00	22.1	2.48	0.792	2	2664	0.00930	0.00	0.00	0	124	0	2.43	0.00
1	3B	39.9	4.21	62.0	5.18	2.138	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.10
1	4B	0.0	0.00	62.0	5.18	2.132	2	1443	0.01240	0.00	0.00	0	124	0	2.28	0.00
1	5B	39.0	3.02	101.0	7.43	3.097	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.04
1	6B	0.0	0.00	101.0	7.43	3.091	2	732	0.01030	0.00	0.00	0	124	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinC.lac Run date: Tue Sep 29 11:49:17 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	2.19	17.8	2.19	0.700	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1	2C	0.0	0.00	17.8	2.19	0.699	2	1591	0.02010	0.00	0.00	0	124	0	4.43	0.00
1	3C	15.5	1.84	33.3	3.58	1.288	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1	4C	0.0	0.00	33.3	3.58	1.287	2	1045	0.01800	0.00	0.00	0	124	0	4.28	0.00
1	5C	29.5	3.39	62.8	6.27	2.371	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1	6C	0.0	0.00	62.8	6.27	2.370	2	1347	0.01730	0.00	0.00	0	124	0	4.14	0.00
1	7C	25.1	2.84	87.9	8.27	3.277	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1	8C	0.0	0.00	87.9	8.27	3.271	2	1037	0.01750	0.00	0.00	0	124	0	4.07	0.00
1	9C	20.7	2.30	108.6	9.80	4.007	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1	10C	0.0	0.00	108.6	9.80	4.000	2	733	0.01640	0.00	0.00	0	124	0	4.00	0.00
1	11C	25.8	2.81	134.4	11.71	4.900	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1	12C	0.0	0.00	134.4	11.71	4.892	2	713	0.01620	0.00	0.00	0	124	0	3.93	0.00
1	13C	31.9	3.48	166.3	14.11	6.005	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1	14C	0.0	0.00	166.3	14.11	5.991	2	939	0.01560	0.00	0.00	0	124	0	3.93	0.00
1	15C	34.6	3.71	200.9	16.58	7.177	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1	16C	0.0	0.00	200.9	16.58	7.158	2	903	0.01260	0.00	0.00	0	124	0	3.86	0.00
1	17C	32.8	3.38	233.7	18.65	8.238	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1	18C	0.0	0.00	233.7	18.65	8.210	2	1112	0.01420	0.00	0.00	0	124	0	3.71	0.00
1	19C	23.2	2.30	256.9	19.58	8.945	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	20C	0.0	0.00	256.9	19.58	8.905	2	1160	0.01210	0.00	0.00	0	124	0	3.57	0.00
1	21C	29.7	2.77	286.6	20.07	9.791	0	0	0.00000	0.00	0.00	0	124	30	3.36	0.01
1	22C	0.0	0.00	286.6	20.07	9.723	2	1549	0.01130	0.00	0.00	0	124	0	3.36	0.00
1	23C	35.4	2.95	322.0	20.54	10.666	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1	24C	0.0	0.00	322.0	20.54	10.555	2	1993	0.01060	0.00	0.00	0	124	0	3.00	0.00
1	25C	28.1	2.17	350.1	20.63	11.249	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.01
1	26C	0.0	0.00	350.1	20.63	11.198	2	765	0.00890	0.00	0.00	0	124	0	2.78	0.00
1	27C	35.0	2.50	385.1	21.06	11.996	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1	28C	0.0	0.00	385.1	21.06	11.848	2	1922	0.00820	0.00	0.00	0	124	0	2.57	0.00
1	29C	34.0	2.36	419.1	21.13	12.603	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1	30C	0.0	0.00	419.1	21.13	12.493	2	1457	0.01040	0.00	0.00	0	124	0	2.50	0.00
1	31C	29.3	1.98	448.4	21.30	13.125	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1	32C	0.0	0.00	448.4	21.30	13.027	2	1251	0.01080	0.00	0.00	0	124	0	2.43	0.00
1	33C	35.6	3.54	484.0	21.75	14.159	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.08
1	34C	0.0	0.00	484.0	21.75	13.980	2	2107	0.01100	0.00	0.00	0	124	0	2.36	0.00
1	35D	16.7	1.72	16.7	1.72	0.550	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	36D	0.0	0.00	16.7	1.72	0.549	2	1299	0.01300	0.00	0.00	0	134	0	3.71	0.00
1	37D	29.0	2.87	45.7	4.09	1.468	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	38D	0.0	0.00	45.7	4.09	1.467	2	1308	0.01380	0.00	0.00	0	124	0	3.57	0.00
1	39D	29.9	2.85	75.6	6.19	2.378	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1	40D	0.0	0.00	75.6	6.19	2.371	2	1530	0.01050	0.00	0.00	0	124	0	3.43	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	1.91	97.0	6.91	2.981	0	0	0.00000	0.00	0.00	0	124	30	3.21	0.01
1 42D	0.0	0.00	97.0	6.91	2.968	2	1185	0.01070	0.00	0.00	0	124	0	3.21	0.00
1 43D	26.1	2.17	123.1	7.63	3.663	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 44D	0.0	0.00	123.1	7.63	3.637	2	1524	0.01060	0.00	0.00	0	124	0	3.00	0.00
1 45D	30.2	2.40	153.3	8.26	4.403	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 46D	0.0	0.00	153.3	8.26	4.359	2	1697	0.00840	0.00	0.00	0	124	0	2.86	0.00
1 47D	30.2	2.15	183.5	8.45	5.048	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 48D	0.0	0.00	183.5	8.45	5.013	2	1239	0.00990	0.00	0.00	0	124	0	2.57	0.00
1 49D	39.0	2.71	222.5	9.59	5.878	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1 50D	0.0	0.00	222.5	9.59	5.824	2	1500	0.00870	0.00	0.00	0	124	0	2.50	0.00
1 51D	31.8	2.78	254.3	10.69	6.713	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.05
1 52D	0.0	0.00	254.3	10.69	6.668	2	1258	0.01140	0.00	0.00	0	124	0	2.43	0.00
1 53D	23.0	2.59	277.3	11.89	7.495	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1 54D	0.0	0.00	277.3	11.89	7.439	2	1118	0.00760	0.00	0.00	0	124	0	2.43	0.00
1 55D	14.6	1.59	291.9	12.24	7.949	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.10
1 56D	0.0	0.00	291.9	12.24	7.887	2	1256	0.00990	0.00	0.00	0	124	0	2.36	0.00

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* CONFLUENCE Q'S *
* 1 57C TC 1266 QC 21.53 QCD 31.55 QD 10.02 1 57D TD 1195 QD 12.04 QD-
3705784519468622500000000000000000000000000000.00 QFC 17.54 QÚ 0.00
* 1 57CD TCD 1263 QCD 31.59 QC 21.51 QD 10.08
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	12.04	775.9	31.59	21.865	2	5	0.00100	0.00	0.00	0	124	0	2.36	0.00
1 58E	12.6	1.38	12.6	1.38	0.440	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.10
1 59E	0.0	0.00	12.6	1.38	0.438	2	1440	0.01150	0.00	0.00	0	124	0	2.36	0.00
1 60E	28.7	3.03	41.3	3.84	1.407	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.10
1 61E	0.0	0.00	41.3	3.84	1.397	2	3334	0.01150	0.00	0.00	0	124	0	2.28	0.00
1 62F	16.5	2.00	16.5	2.00	0.639	0	0	0.00000	0.00	0.00	0	124	30	4.36	0.01
1 63F	0.0	0.00	16.5	2.00	0.637	2	1673	0.02100	0.00	0.00	0	124	0	4.36	0.00
1 64F	24.0	2.85	40.5	4.31	1.549	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1 65F	0.0	0.00	40.5	4.31	1.548	2	955	0.02000	0.00	0.00	0	124	0	4.28	0.00
1 66F	33.9	3.90	74.4	7.65	2.794	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1 67F	0.0	0.00	74.4	7.65	2.793	2	1251	0.01830	0.00	0.00	0	124	0	4.14	0.00
1 68F	29.6	3.34	104.0	10.22	3.863	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1 69F	0.0	0.00	104.0	10.22	3.858	2	1122	0.01740	0.00	0.00	0	124	0	4.07	0.00
1 70F	25.9	2.88	129.9	12.16	4.777	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 71F	0.0	0.00	129.9	12.16	4.768	2	874	0.01460	0.00	0.00	0	124	0	4.00	0.00
1 72F	26.7	2.91	156.6	13.93	5.700	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 73F	0.0	0.00	156.6	13.93	5.686	2	907	0.01500	0.00	0.00	0	124	0	3.93	0.00
1 74F	29.9	3.20	186.5	15.69	6.711	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 75F	0.0	0.00	186.5	15.69	6.694	2	876	0.01400	0.00	0.00	0	124	0	3.86	0.00
1 76F	39.5	4.07	226.0	17.98	7.995	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 77F	0.0	0.00	226.0	17.98	7.973	2	987	0.01600	0.00	0.00	0	124	0	3.71	0.00
1 78F	38.8	3.84	264.8	20.18	9.203	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 79F	0.0	0.00	264.8	20.18	9.176	2	900	0.01300	0.00	0.00	0	124	0	3.57	0.00
1 80F	39.6	3.77	304.4	22.27	10.382	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 81F	0.0	0.00	304.4	22.27	10.355	2	831	0.01430	0.00	0.00	0	124	0	3.43	0.00
1 82F	39.9	3.63	344.3	24.29	11.516	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 83F	0.0	0.00	344.3	24.29	11.483	2	829	0.01210	0.00	0.00	0	124	0	3.28	0.00
1 84F	39.8	3.47	384.1	26.03	12.592	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 85F	0.0	0.00	384.1	26.03	12.553	2	853	0.01170	0.00	0.00	0	124	0	3.14	0.00
1 86F	39.1	3.41	423.2	27.47	13.643	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 87F	0.0	0.00	423.2	27.47	13.579	2	1094	0.00990	0.00	0.00	0	124	0	3.14	0.00
1 88F	22.9	1.91	446.1	27.61	14.189	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 89F	0.0	0.00	446.1	27.61	14.125	2	845	0.00780	0.00	0.00	0	124	0	3.00	0.00
1 90F	36.2	2.79	482.3	28.21	15.019	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.01
1 91F	0.0	0.00	482.3	28.21	14.882	2	1675	0.00880	0.00	0.00	0	124	0	2.78	0.00
1 92F	23.7	1.69	506.0	28.20	15.423	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.01
1 93F	0.0	0.00	506.0	28.20	15.309	2	1298	0.00950	0.00	0.00	0	124	0	2.57	0.00
1 94F	17.9	1.24	523.9	28.25	15.706	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.01
1 95F	0.0	0.00	523.9	28.25	15.605	2	1020	0.00840	0.00	0.00	0	124	0	2.50	0.00
1 96F	22.5	1.52	546.4	28.40	16.090	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 97F	0.0	0.00	546.4	28.40	15.921	2	1387	0.00640	0.00	0.00	0	124	0	2.43	0.00
1 98F	21.4	1.44	567.8	28.36	16.383	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.01
1 99F	0.0	0.00	567.8	28.36	16.256	2	1222	0.00990	0.00	0.00	0	124	0	2.43	0.00
1 100F	16.7	1.82	584.5	28.51	16.839	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.10
1 101F	0.0	0.00	584.5	28.51	16.714	2	1247	0.01150	0.00	0.00	0	124	0	2.36	0.00
1 102F	23.0	2.43	607.5	28.77	17.490	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.10
1 103F	0.0	0.00	607.5	28.77	17.122	2	3287	0.01110	0.00	0.00	0	124	0	2.28	0.00
1 104G	18.2	1.99	18.2	1.99	0.636	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.10
1 105G	0.0	0.00	18.2	1.99	0.634	2	1898	0.01040	0.00	0.00	0	134	0	2.36	0.00
1 106G	39.9	3.65	58.1	4.64	1.801	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.07
1 107G	0.0	0.00	58.1	4.64	1.789	2	2469	0.00900	0.00	0.00	0	134	0	2.28	0.00
1 109C	21.4	2.26	797.3	31.92	22.587	0	0	0.00000	0.00	0.00	0	124	30	2.28	0.10
1 108CE	41.3	3.17	838.6	33.32	23.983	0	0	0.00000	0.00	0.00	0	124	0	2.28	0.00
1 109CF	607.5	28.09	1446.1	60.90	41.105	0	0	0.00000	0.00	0.00	0	124	0	2.28	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                 *
* 1  110C  TC 1268 QC    60.90 QCG    62.30 QG     1.41       1  110G  TG 1194 QG     4.09
QG48063935735786173000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000.00 Q5C    51.91 QÚ     0.00
*                                          1  110CG TCG 1267 QCG    62.30 QC    60.88 QG     1.42
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	4.09	1504.2	62.30	42.343	2	2279	0.00940	0.00	0.00	0	124	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinH.lac Run date: Fri Sep 25 08:41:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	2.07	19.0	2.07	0.663	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.10
1	2H	0.0	0.00	19.0	2.07	0.662	2	1718	0.00900	0.00	0.00	0	134	0	2.36	0.00
1	3H	39.5	2.87	58.5	4.02	1.580	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.03
1	4H	0.0	0.00	58.5	4.02	1.576	2	1850	0.01100	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinI.lac Run date: Tue Sep 29 16:45:46 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.24	10.8	1.24	0.397	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1	2I	0.0	0.00	10.8	1.24	0.395	2	1416	0.01690	0.00	0.00	0	124	0	4.14	0.00
1	3I	18.1	2.04	28.9	2.92	1.049	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1	4I	0.0	0.00	28.9	2.92	1.048	2	929	0.01630	0.00	0.00	0	124	0	4.07	0.00
1	5I	12.8	1.45	41.7	4.06	1.511	0	0	0.00000	0.00	0.00	0	124	30	4.07	0.01
1	6I	0.0	0.00	41.7	4.06	1.510	2	459	0.01690	0.00	0.00	0	124	0	4.07	0.00
1	7I	16.5	1.83	58.2	5.61	2.096	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	8I	0.0	0.00	58.2	5.61	2.096	2	616	0.01360	0.00	0.00	0	134	0	4.00	0.00
1	9I	25.9	2.88	84.1	7.99	3.016	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	10I	0.0	0.00	84.1	7.99	3.015	2	879	0.01490	0.00	0.00	0	134	0	4.00	0.00
1	11I	26.8	2.92	110.9	10.21	3.950	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1	12I	0.0	0.00	110.9	10.21	3.944	2	968	0.01270	0.00	0.00	0	134	0	3.93	0.00
1	13I	31.1	3.26	142.0	12.38	4.987	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01
1	14I	0.0	0.00	142.0	12.38	4.971	2	1180	0.01260	0.00	0.00	0	134	0	3.78	0.00
1	15I	37.7	3.88	179.7	14.46	6.213	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	16I	0.0	0.00	179.7	14.46	6.183	2	1443	0.01290	0.00	0.00	0	134	0	3.71	0.00
1	17I	27.6	2.68	207.3	15.13	7.040	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1	18I	0.0	0.00	207.3	15.13	7.016	2	900	0.01190	0.00	0.00	0	134	0	3.50	0.00
1	19I	25.5	2.43	232.8	15.89	7.792	0	0	0.00000	0.00	0.00	0	134	30	3.43	0.01
1	20I	0.0	0.00	232.8	15.89	7.766	2	838	0.01250	0.00	0.00	0	134	0	3.43	0.00
1	21I	37.2	3.39	270.0	17.34	8.850	0	0	0.00000	0.00	0.00	0	134	30	3.28	0.01
1	22I	0.0	0.00	270.0	17.34	8.803	2	1165	0.01030	0.00	0.00	0	134	0	3.28	0.00
1	23I	34.3	2.99	304.3	18.23	9.759	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1	24I	0.0	0.00	304.3	18.23	9.713	2	1034	0.01070	0.00	0.00	0	134	0	3.14	0.00
1	25I	38.0	3.16	342.3	19.34	10.725	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1	26I	0.0	0.00	342.3	19.34	10.671	2	1049	0.01010	0.00	0.00	0	134	0	3.00	0.00
1	27I	39.5	2.97	381.8	20.21	11.621	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.01
1	28I	0.0	0.00	381.8	20.21	11.489	2	2077	0.00930	0.00	0.00	0	134	0	2.71	0.00
1	29I	29.4	2.64	411.2	20.26	12.334	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.05
1	30I	0.0	0.00	411.2	20.26	12.214	2	1661	0.00960	0.00	0.00	0	134	0	2.50	0.00
1	31I	39.6	4.45	450.8	21.01	13.637	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1	32I	0.0	0.00	450.8	21.01	13.535	2	1306	0.00980	0.00	0.00	0	134	0	2.43	0.00
1	33I	39.3	5.99	490.1	22.47	15.450	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.18
1	34I	0.0	0.00	490.1	22.47	15.318	2	1279	0.00660	0.00	0.00	0	134	0	2.43	0.00
1	35I	26.7	2.92	516.8	23.70	16.250	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.10
1	36I	0.0	0.00	516.8	23.70	16.176	2	878	0.01140	0.00	0.00	0	134	0	2.36	0.00
1	37I	37.9	3.29	554.7	25.36	17.227	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.06
1	38I	0.0	0.00	554.7	25.36	17.020	2	1809	0.00760	0.00	0.00	0	134	0	2.28	0.00
1	39J	27.8	2.86	27.8	2.86	0.916	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1	40J	0.0	0.00	27.8	2.86	0.915	2	1645	0.01190	0.00	0.00	0	134	0	3.71	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	1.86	46.6	4.00	1.510	0	0	0.00000	0.00	0.00	0	134	30	3.57	0.01
1 42J	0.0	0.00	46.6	4.00	1.509	2	760	0.01290	0.00	0.00	0	134	0	3.57	0.00
1 43J	32.3	3.14	78.9	6.40	2.513	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 44J	0.0	0.00	78.9	6.40	2.510	2	1022	0.01280	0.00	0.00	0	134	0	3.50	0.00
1 45J	32.3	3.01	111.2	8.63	3.474	0	0	0.00000	0.00	0.00	0	134	30	3.36	0.01
1 46J	0.0	0.00	111.2	8.63	3.464	2	1126	0.01150	0.00	0.00	0	134	0	3.36	0.00
1 47J	27.3	2.38	138.5	10.05	4.225	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1 48J	0.0	0.00	138.5	10.05	4.209	2	1116	0.01060	0.00	0.00	0	134	0	3.14	0.00
1 49J	22.5	1.87	161.0	10.64	4.808	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1 50J	0.0	0.00	161.0	10.64	4.787	2	1019	0.01040	0.00	0.00	0	134	0	3.00	0.00
1 51J	18.6	1.40	179.6	10.79	5.234	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.01
1 52J	0.0	0.00	179.6	10.79	5.205	2	1085	0.00980	0.00	0.00	0	134	0	2.71	0.00
1 53J	35.3	3.44	214.9	11.57	6.306	0	0	0.00000	0.00	0.00	0	134	30	2.71	0.05
1 54J	0.0	0.00	214.9	11.57	6.262	2	1400	0.01030	0.00	0.00	0	134	0	2.71	0.00
1 55J	40.0	4.76	254.9	14.01	7.783	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.10
1 56J	0.0	0.00	254.9	14.01	7.718	2	1510	0.00790	0.00	0.00	0	134	0	2.57	0.00
1 57J	40.0	4.50	294.9	16.17	9.156	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1 58J	0.0	0.00	294.9	16.17	9.089	2	1410	0.00900	0.00	0.00	0	134	0	2.43	0.00
1 59J	37.3	7.51	332.2	20.44	11.491	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.29
1 60J	0.0	0.00	332.2	20.44	11.410	2	1434	0.00910	0.00	0.00	0	134	0	2.36	0.00
1 61J	28.5	3.01	360.7	21.66	12.372	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 62J	0.0	0.00	360.7	21.66	12.209	2	2082	0.00730	0.00	0.00	0	134	0	2.28	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1   63I  TI 1194 QI    24.46 QIJ    44.95 QJ    20.49       1   63J  TJ 1198 QJ    20.63 QJ     0.00 QGI    24.39 Q™     0.00
*                                        1   63IJ TIJ 1197 QIJ    45.04 QI    24.42 QJ    20.62
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	20.63	915.4	45.04	29.228	2	5	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinK.lac Run date: Fri Sep 25 09:16:37 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	252.2	632.02	252.2	632.02	29.691	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	252.2	632.02	29.675	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	2.73	273.7	625.04	30.547	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	4K	0.0	0.00	273.7	625.04	30.544	2	571	0.03050	0.00	0.00	0	124	0	4.57	0.00
1	5K	39.6	4.95	313.3	625.66	32.126	0	0	0.00000	0.00	0.00	0	124	30	4.50	0.01
1	6B	39.7	4.19	39.7	4.19	1.339	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1	6K	0.0	0.00	313.3	625.66	32.145	2	1014	0.02040	0.00	0.00	0	134	0	2.28	0.00
1	7K	39.6	4.87	352.9	615.95	33.702	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1	8K	0.0	0.00	352.9	615.95	33.717	2	1054	0.01830	0.00	0.00	0	124	0	4.43	0.00
1	9K	30.7	3.65	383.6	601.36	34.883	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1	10K	0.0	0.00	383.6	601.36	34.886	2	957	0.01610	0.00	0.00	0	134	0	4.28	0.00
1	11K	33.2	3.88	416.8	591.89	36.127	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1	12K	0.0	0.00	416.8	591.89	36.059	2	1511	0.01470	0.00	0.00	0	134	0	4.21	0.00
1	13L	28.8	3.87	28.8	3.87	1.205	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1	14L	0.0	0.00	28.8	3.87	1.204	2	659	0.02120	0.00	0.00	0	134	0	4.71	0.00
1	15L	24.8	3.19	53.6	6.88	2.226	0	0	0.00000	0.00	0.00	0	134	30	4.64	0.01
1	16L	0.0	0.00	53.6	6.88	2.225	2	724	0.02090	0.00	0.00	0	134	0	4.64	0.00
1	17B	39.1	4.20	78.8	8.39	2.683	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.09
1	18L	0.0	0.00	53.6	6.77	2.225	2	1152	0.01700	0.00	0.00	0	134	0	2.43	0.00
1	19L	21.3	2.62	74.9	8.54	3.062	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1	20L	0.0	0.00	74.9	8.54	3.056	2	1374	0.01640	0.00	0.00	0	134	0	4.43	0.00
1	21L	17.9	2.13	92.8	9.28	3.736	0	0	0.00000	0.00	0.00	0	134	30	4.28	0.01
1	22L	0.0	0.00	92.8	9.28	3.718	2	1523	0.01560	0.00	0.00	0	134	0	4.28	0.00

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*****************************************************************************************************************************
*                                                          CONFLUENCE Q'S                                                   *
* 1   23K  TK 1167 QK   553.96 QKL   560.20 QL     6.23       1   23L  TL 1192 QL     8.88 QL    -0.00 QæK    67.32 Q□     1.#R
*                                        1   23KL TKL 1167 QKL   560.20 QK   553.96 QL     6.23
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	8.88	509.6	560.20	39.724	2	709	0.01300	0.00	0.00	0	134	0	4.28	0.00
1	24K	30.9	3.43	540.5	555.95	40.822	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	25K	0.0	0.00	540.5	555.95	40.763	2	778	0.01320	0.00	0.00	0	134	0	4.00	0.00
1	26K	32.3	3.59	572.8	549.49	41.910	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1	27K	0.0	0.00	572.8	549.49	41.815	2	881	0.01070	0.00	0.00	0	134	0	4.00	0.00
1	28K	28.9	3.15	601.7	536.97	42.823	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1	29K	0.0	0.00	601.7	536.97	42.704	2	934	0.01050	0.00	0.00	0	134	0	3.93	0.00
1	30K	21.2	2.27	622.9	520.91	43.430	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1	31K	0.0	0.00	622.9	520.91	43.340	2	853	0.01320	0.00	0.00	0	134	0	3.86	0.00
1	32M	897.9	3790.98	897.9	3790.98	490.699	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	33M	0.0	0.00	897.9	3790.98	490.017	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1	34M	31.7	4.26	929.6	3665.99	491.343	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1	35M	0.0	0.00	929.6	3665.99	491.240	2	1319	0.02170	0.00	0.00	0	134	0	4.71	0.00
1	36M	29.5	3.74	959.1	3584.88	492.436	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	37M	0.0	0.00	959.1	3584.88	492.381	2	1114	0.01940	0.00	0.00	0	134	0	4.57	0.00
1	38M	27.9	3.42	987.0	3459.07	493.476	0	0	0.00000	0.00	0.00	0	134	30	4.42	0.01
1	39M	0.0	0.00	987.0	3459.07	493.438	2	1014	0.01810	0.00	0.00	0	134	0	4.42	0.00
1	40M	39.2	4.74	1026.2	3367.83	494.955	0	0	0.00000	0.00	0.00	0	134	30	4.36	0.01
1	41M	0.0	0.00	1026.2	3367.83	494.907	2	1409	0.01550	0.00	0.00	0	134	0	4.36	0.00
1	42N	363.9	758.07	363.9	758.07	42.660	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1	43N	0.0	0.00	363.9	758.07	42.687	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	44N	39.5	7.46	403.4	749.19	44.366	0	0	0.00000	0.00	0.00	0	134	25	4.71	0.01
1	45N	0.0	0.00	403.4	749.19	44.365	2	684	0.05170	0.00	0.00	0	134	0	4.71	0.00
1	46N	38.9	5.01	442.3	752.34	45.968	0	0	0.00000	0.00	0.00	0	134	30	4.64	0.01
1	47N	0.0	0.00	442.3	752.34	45.960	2	702	0.02820	0.00	0.00	0	134	0	4.64	0.00
1	48N	37.9	4.81	480.2	752.23	47.498	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	49N	0.0	0.00	480.2	752.23	47.485	2	938	0.02310	0.00	0.00	0	134	0	4.57	0.00
1	50N	32.3	3.97	512.5	750.24	48.755	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1	51N	0.0	0.00	512.5	750.24	48.650	2	1933	0.00920	0.00	0.00	0	134	0	4.43	0.00

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*****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                           *
* 1   52M  TM 1160 QM  3246.69 QMN  3571.59 QN   324.90      1   52N  TN 1167 QN   686.48 QN    -0.00 Q.M  1374.61 Q□     1.#R
*                                     1   52MN TMN 1161 QMN  3612.18 QM  3216.32 QN   395.86
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52MN	512.5	686.48	1538.7	3612.18	543.465	2	885	0.02080	0.00	0.00	0	134	0	4.43	0.00
1	53M	18.1	2.08	1556.8	3562.57	544.130	0	0	0.00000	0.00	0.00	0	134	30	4.14	0.01
1	54M	0.0	0.00	1556.8	3562.57	543.920	2	1259	0.00920	0.00	0.00	0	134	0	4.14	0.00
1	55O	35.7	4.39	35.7	4.39	1.404	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1	56O	0.0	0.00	35.7	4.39	1.402	2	2369	0.01220	0.00	0.00	0	134	0	4.43	0.00
1	57B	40.0	4.92	118.8	13.31	4.256	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1	58O	0.0	0.00	35.7	3.72	1.394	2	1288	0.01250	0.00	0.00	0	134	0	4.43	0.00

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*****************************************************************************************************************************
*                                                  CONFLUENCE Q'S                                                           *
* 1   59M  TM 1164 QM  3459.28 QMO  3461.01 QO     1.72      1   59O  TO 1200 QO     3.55
QO46123093466181556000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q;M   479.71 Q□     1.#R
*                                     1   59MO TMO 1164 QMO  3461.01 QM  3459.28 QO     1.72
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	59MO	35.7	3.55	1592.5	3461.01	544.961	2	934	0.01150	0.00	0.00	0	134	0	4.43	0.00
1	60M	21.5	2.39	1614.0	3408.00	545.725	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 61M	0.0	0.00	1614.0	3408.00	545.258	2	1075	0.01320	0.00	0.00	0	134	0	4.00	0.00
1 62M	0.0	0.00	1614.0	3339.54	545.255	2	5	0.01000	0.00	0.00	0	134	0	4.00	0.00

****
* CONFLUENCE Q'S *
* 1 63K TK 1179 QK 511.39 QKM 1975.00 QM 1463.61 1 63M TM 1167 QM 3339.42
QM2563974354977353900000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QªK 109.41 Q□ 1.#R
* 1 63KM TKM 1167 QKM 3448.83 QK 109.41 QM 3339.42
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1614.0	3339.42	2236.9	3448.83	588.593	2	5	0.01000	0.00	0.00	0	134	0	4.00	0.00
1 64K	31.4	3.43	2268.3	3451.94	589.689	0	0	0.00000	0.00	0.00	0	134	30	3.93	0.01
1 65K	0.0	0.00	2268.3	3451.94	589.210	2	784	0.01050	0.00	0.00	0	134	0	3.93	0.00
1 66K	37.2	3.99	2305.5	3417.22	590.485	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 67K	0.0	0.00	2305.5	3417.22	589.970	2	770	0.01080	0.00	0.00	0	124	0	3.86	0.00
1 68K	34.7	3.57	2340.2	3376.55	591.113	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1 69K	0.0	0.00	2340.2	3376.55	590.330	2	992	0.01000	0.00	0.00	0	124	0	3.71	0.00
1 70K	19.1	1.89	2359.3	3327.82	590.935	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 71K	0.0	0.00	2359.3	3327.82	589.983	2	975	0.00800	0.00	0.00	0	124	0	3.57	0.00
1 72K	10.9	1.06	2370.2	3269.40	590.322	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 73K	0.0	0.00	2370.2	3269.40	589.480	2	715	0.00700	0.00	0.00	0	124	0	3.50	0.00
1 74K	24.2	2.30	2394.4	3238.42	590.217	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 75K	0.0	0.00	2394.4	3238.42	589.116	2	1168	0.01280	0.00	0.00	0	124	0	3.43	0.00
1 76P	59.4	190.12	59.4	190.12	7.020	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	59.4	190.12	7.014	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	3.46	85.9	188.94	8.122	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 79P	0.0	0.00	85.9	188.94	8.116	2	1220	0.00870	0.00	0.00	0	124	0	4.71	0.00
1 80P	39.7	5.04	125.6	155.17	9.726	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 81P	0.0	0.00	125.6	155.17	9.705	2	2419	0.01850	0.00	0.00	0	134	0	4.57	0.00
1 82Q	40.0	5.38	40.0	5.38	1.673	0	0	0.00000	0.00	0.00	0	134	30	4.71	0.01
1 83Q	0.0	0.00	40.0	5.38	1.673	2	1582	0.02720	0.00	0.00	0	134	0	4.71	0.00
1 84Q	40.0	5.07	80.0	9.69	3.296	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 85Q	0.0	0.00	80.0	9.69	3.293	2	1847	0.02110	0.00	0.00	0	134	0	4.57	0.00

****
* CONFLUENCE Q'S *
* 1 86P TP 1168 QP 118.48 QPQ 126.39 QQ 7.91 1 86Q TQ 1180 QQ 9.25 QQ-
37920320995296425000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 QïP 52.93 Q□ 1.#R
* 1 86PQ TPQ 1168 QPQ 126.39 QP 118.48 QQ 7.91
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	9.25	205.6	126.39	12.975	2	949	0.02000	0.00	0.00	0	134	0	4.57	0.00
1 87P	40.0	5.07	245.6	126.32	14.598	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 88P	0.0	0.00	245.6	126.32	14.564	2	856	0.01150	0.00	0.00	0	134	0	4.57	0.00
1 89P	40.0	4.67	285.6	124.57	16.059	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1 90P	0.0	0.00	285.6	124.57	16.011	2	1066	0.01300	0.00	0.00	0	134	0	4.21	0.00
1 91P	40.0	4.60	325.6	121.58	17.482	0	0	0.00000	0.00	0.00	0	134	30	4.14	0.01
1 92P	0.0	0.00	325.6	121.58	17.401	2	1323	0.01000	0.00	0.00	0	134	0	4.14	0.00
1 93P	38.5	4.27	364.1	113.78	18.768	0	0	0.00000	0.00	0.00	0	134	30	4.00	0.01
1 94P	0.0	0.00	364.1	113.78	18.682	2	1231	0.00980	0.00	0.00	0	134	0	4.00	0.00
1 95P	32.9	3.59	397.0	108.57	19.829	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 96P	0.0	0.00	397.0	108.57	19.601	2	853	0.00100	0.00	0.00	0	124	0	3.93	0.00
1 97P	32.3	3.39	429.3	93.42	20.685	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.01
1 98P	0.0	0.00	429.3	93.42	20.591	2	903	0.00830	0.00	0.00	0	124	0	3.78	0.00
1 99P	36.0	3.64	465.3	92.49	21.754	0	0	0.00000	0.00	0.00	0	124	30	3.64	0.01
1 100P	0.0	0.00	465.3	92.49	21.620	2	1173	0.00770	0.00	0.00	0	124	0	3.64	0.00
1 101P	22.9	2.27	488.2	90.03	22.346	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1 102P	0.0	0.00	488.2	90.03	22.267	2	832	0.01210	0.00	0.00	0	124	0	3.57	0.00
1 103P	12.6	1.20	500.8	89.46	22.651	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1 104P	0.0	0.00	500.8	89.46	22.550	2	949	0.01050	0.00	0.00	0	124	0	3.43	0.00

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* CONFLUENCE Q'S *

* 1 105K TK 1176 QK 3193.33 QKP 3218.01 QP 24.68 1 105P TP 1228 QP 88.25 QP 0.00 QÎK 503.73 Q□ 1.#R

* 1 105KP TKP 1176 QKP 3218.01 QK 3193.33 QP 24.68

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	500.8	88.25	2895.2	3218.01	611.661	2	5	0.01000	0.00	0.00	0	124	0	3.43	0.00
1 106K	32.1	2.99	2927.3	3220.25	612.618	0	0	0.00000	0.00	0.00	0	124	30	3.36	0.01
1 107K	0.0	0.00	2927.3	3220.25	611.584	2	913	0.01100	0.00	0.00	0	124	0	3.36	0.00
1 108K	37.7	3.43	2965.0	3183.22	612.682	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 109K	0.0	0.00	2965.0	3183.22	611.361	2	1081	0.01000	0.00	0.00	0	124	0	3.28	0.00
1 110K	39.4	3.43	3004.4	3147.80	612.460	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 111K	0.0	0.00	3004.4	3147.80	611.249	2	1044	0.01240	0.00	0.00	0	124	0	3.14	0.00
1 112K	39.8	3.31	3044.2	3117.37	612.309	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.01
1 113K	0.0	0.00	3044.2	3117.37	610.929	2	1121	0.01110	0.00	0.00	0	124	0	3.00	0.00
1 114K	40.0	3.18	3084.2	3078.42	611.944	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.01
1 115K	0.0	0.00	3084.2	3078.42	610.630	2	960	0.00950	0.00	0.00	0	124	0	2.86	0.00
1 116K	39.8	3.22	3124.0	3047.52	611.659	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.02
1 117K	0.0	0.00	3124.0	3047.52	610.419	2	919	0.00990	0.00	0.00	0	124	0	2.71	0.00
1 118K	39.8	4.10	3163.8	3026.28	611.731	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.07
1 119K	0.0	0.00	3163.8	3026.28	610.944	2	835	0.01980	0.00	0.00	0	134	0	2.57	0.00
1 120K	22.4	2.48	3186.2	3010.27	611.736	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.09
1 121K	0.0	0.00	3186.2	3010.27	610.201	2	1042	0.00770	0.00	0.00	0	134	0	2.50	0.00
1 122R	21.6	2.31	21.6	2.31	0.740	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 123R	0.0	0.00	21.6	2.31	0.739	2	1940	0.01230	0.00	0.00	0	134	0	3.86	0.00
1 124R	32.5	3.41	54.1	4.74	1.830	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 125R	0.0	0.00	54.1	4.74	1.828	2	1189	0.01320	0.00	0.00	0	134	0	3.78	0.00
1 126R	23.9	2.46	78.0	6.55	2.615	0	0	0.00000	0.00	0.00	0	134	30	3.71	0.01
1 127R	0.0	0.00	78.0	6.55	2.612	2	803	0.01280	0.00	0.00	0	134	0	3.71	0.00
1 128R	28.8	3.02	106.8	8.86	3.579	0	0	0.00000	0.00	0.00	0	134	30	3.78	0.01
1 129R	0.0	0.00	106.8	8.86	3.570	2	966	0.01040	0.00	0.00	0	134	0	3.78	0.00
1 130R	29.3	2.90	136.1	10.73	4.499	0	0	0.00000	0.00	0.00	0	134	30	3.57	0.01
1 131R	0.0	0.00	136.1	10.73	4.487	2	795	0.00960	0.00	0.00	0	134	0	3.57	0.00
1 132R	27.5	2.67	163.6	12.29	5.341	0	0	0.00000	0.00	0.00	0	134	30	3.50	0.01
1 133R	0.0	0.00	163.6	12.29	5.328	2	759	0.01050	0.00	0.00	0	134	0	3.50	0.00
1 134R	27.3	2.60	190.9	13.72	6.159	0	0	0.00000	0.00	0.00	0	134	30	3.43	0.01
1 135R	0.0	0.00	190.9	13.72	6.141	2	740	0.00980	0.00	0.00	0	134	0	3.43	0.00
1 136R	29.4	2.74	220.3	15.12	7.018	0	0	0.00000	0.00	0.00	0	134	30	3.36	0.01
1 137R	0.0	0.00	220.3	15.12	6.994	2	849	0.01000	0.00	0.00	0	134	0	3.36	0.00
1 138R	36.9	3.36	257.2	16.76	8.069	0	0	0.00000	0.00	0.00	0	134	30	3.28	0.01
1 139R	0.0	0.00	257.2	16.76	8.037	2	960	0.01020	0.00	0.00	0	134	0	3.28	0.00
1 140R	27.6	2.41	284.8	17.62	8.806	0	0	0.00000	0.00	0.00	0	134	30	3.14	0.01
1 141R	0.0	0.00	284.8	17.62	8.782	2	705	0.01250	0.00	0.00	0	134	0	3.14	0.00
1 142R	36.0	3.00	320.8	19.04	9.740	0	0	0.00000	0.00	0.00	0	134	30	3.00	0.01
1 143R	0.0	0.00	320.8	19.04	9.699	2	966	0.01040	0.00	0.00	0	134	0	3.00	0.00
1 144R	39.6	3.06	360.4	20.14	10.676	0	0	0.00000	0.00	0.00	0	134	30	2.78	0.01
1 145R	0.0	0.00	360.4	20.14	10.620	2	1078	0.00940	0.00	0.00	0	134	0	2.78	0.00
1 146R	27.4	1.95	387.8	20.38	11.246	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.01
1 147R	0.0	0.00	387.8	20.38	11.214	2	693	0.01440	0.00	0.00	0	134	0	2.57	0.00
1 148R	27.6	2.99	415.4	21.37	12.170	0	0	0.00000	0.00	0.00	0	134	30	2.57	0.08
1 149R	0.0	0.00	415.4	21.37	12.092	2	1266	0.00970	0.00	0.00	0	134	0	2.57	0.00
1 150R	20.7	2.39	436.1	21.73	12.857	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.10
1 151R	0.0	0.00	436.1	21.73	12.760	2	1379	0.00960	0.00	0.00	0	134	0	2.50	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1189 QK  2973.52 QKR  2994.14 QR    20.62       1  152R  TR 1208 QR    21.65 QR-
1059111359109935500000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000.00 QWK  1651.18 Q□     1.#R
*                                      1  152KR TKR 1189 QKR  2994.14 QK  2973.52 QR    20.62
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	21.65	3622.3	2994.14	621.206	2	1212	0.00830	0.00	0.00	0	134	0	2.50	0.00
1 153K	38.8	3.97	3661.1	2945.26	622.477	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.08
1 154K	0.0	0.00	3661.1	2945.26	619.590	2	2066	0.00970	0.00	0.00	0	134	0	2.43	0.00
1 155K	27.3	2.85	3688.4	2846.01	620.501	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.09
1 156K	0.0	0.00	3688.4	2846.01	617.953	2	1710	0.00880	0.00	0.00	0	134	0	2.36	0.00
1 157K	22.1	2.33	3710.5	2786.31	618.699	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 158K	0.0	0.00	3710.5	2786.31	616.119	2	1697	0.00870	0.00	0.00	0	134	0	2.28	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 159S	39.3	4.29	39.3	4.29	1.372	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.10
1 160S	0.0	0.00	39.3	4.29	1.369	2	2302	0.01100	0.00	0.00	0	134	0	2.36	0.00
1 161S	36.7	3.87	76.0	6.44	2.607	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 162S	0.0	0.00	76.0	6.44	2.593	2	2012	0.01210	0.00	0.00	0	134	0	2.28	0.00
1 163T	16.1	1.81	16.1	1.81	0.579	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1 164T	0.0	0.00	16.1	1.81	0.578	2	1839	0.00880	0.00	0.00	0	134	0	2.43	0.00
1 165T	28.5	3.20	44.6	4.05	1.602	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1 166T	0.0	0.00	44.6	4.05	1.601	2	887	0.01190	0.00	0.00	0	134	0	2.43	0.00
1 167T	38.0	4.01	82.6	7.60	2.883	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 168T	0.0	0.00	82.6	7.60	2.879	2	1078	0.00880	0.00	0.00	0	134	0	2.28	0.00
1 169T	39.8	4.20	122.4	10.71	4.222	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 170T	0.0	0.00	122.4	10.71	4.208	2	1337	0.01200	0.00	0.00	0	134	0	2.28	0.00
1 171T	29.2	3.08	151.6	12.36	5.193	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 172T	0.0	0.00	151.6	12.36	5.154	2	1813	0.00980	0.00	0.00	0	134	0	2.28	0.00
1 173KS	76.0	6.03	3786.5	2734.91	618.712	0	0	0.00000	0.00	0.00	0	134	0	2.28	0.00

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****************************************************************************************************************************
*                                                CONFLUENCE Q'S                                                           *
* 1  174K  TK 1202 QK  2734.91 QKT  2745.90 QT    10.99      1  174T  TT 1191 QT    11.60 QT-
28597045110595842000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000.00 QbK   987.07 Q□     1.#R
*                                        1  174KT TKT 1202 QKT  2745.90 QK  2734.91 QT    10.99
****************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	11.60	3938.1	2745.90	622.241	2	1115	0.00920	0.00	0.00	0	134	0	2.28	0.00
1 175K	28.5	3.01	3966.6	2728.05	623.203	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 176K	0.0	0.00	3966.6	2728.05	620.246	2	1834	0.00810	0.00	0.00	0	134	0	2.28	0.00
1 177U	29.4	3.10	29.4	3.10	0.992	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 178U	29.1	3.07	58.5	6.17	1.974	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.10
1 179U	0.0	0.00	58.5	6.17	1.958	2	3079	0.00820	0.00	0.00	0	134	0	2.28	0.00
1 180U	31.8	2.76	90.3	5.95	2.840	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.06
1 181U	0.0	0.00	90.3	5.95	2.810	2	2207	0.01120	0.00	0.00	0	134	0	2.28	0.00
1 182U	21.3	1.55	111.6	5.85	3.305	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.03
1 183U	0.0	0.00	111.6	5.85	3.247	2	2448	0.00810	0.00	0.00	0	134	0	2.28	0.00

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*                                                CONFLUENCE Q'S                                                           *
* 1  184K  TK 1208 QK  2668.38 QKU  2673.80 QU     5.42      1  184U  TU 1229 QU     5.70 QU  5675.18 Q@K  1619.61 Q□     1.#R
*                                        1  184KU TKU 1208 QKU  2673.80 QK  2668.38 QU     5.42
****************************************************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	5.70	4078.2	2673.80	623.485	2	5	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinV.lac Run date: Fri Sep 25 09:58:44 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	2.29	23.8	2.29	0.732	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.08
1	2V	0.0	0.00	23.8	2.29	0.730	2	1412	0.01030	0.00	0.00	0	134	0	2.28	0.00
1	3V	39.4	2.86	63.2	4.44	1.646	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.03
1	4V	0.0	0.00	63.2	4.44	1.645	2	1046	0.01150	0.00	0.00	0	134	0	2.28	0.00
1	5V	39.9	3.46	103.1	7.09	2.752	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.06
1	6V	0.0	0.00	103.1	7.09	2.749	2	892	0.01000	0.00	0.00	0	134	0	2.28	0.00
1	7V	40.0	3.47	143.1	9.70	3.859	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.06
1	8V	0.0	0.00	143.1	9.70	3.850	2	964	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\BasinW.lac Run date: Fri Sep 25 11:23:57 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	2.48	24.1	2.48	0.794	0	0	0.00000	0.00	0.00	0	124	30	3.71	0.01
1	2B	27.6	1.75	27.6	1.75	0.559	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1	2W	0.0	0.00	24.1	2.48	0.793	2	1848	0.01050	0.00	0.00	0	134	0	2.28	0.00
1	3W	22.3	2.21	46.4	3.78	1.499	0	0	0.00000	0.00	0.00	0	124	30	3.57	0.01
1	4B	15.1	1.70	42.7	3.44	1.102	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1	4W	0.0	0.00	46.4	3.78	1.498	2	1007	0.01070	0.00	0.00	0	134	0	2.43	0.00
1	5W	26.9	2.56	73.3	5.58	2.317	0	0	0.00000	0.00	0.00	0	124	30	3.43	0.01
1	6W	0.0	0.00	73.3	5.58	2.311	2	1111	0.00990	0.00	0.00	0	124	0	3.43	0.00
1	7W	24.7	2.25	98.0	7.01	3.030	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1	8W	0.0	0.00	98.0	7.01	3.015	2	1118	0.00710	0.00	0.00	0	124	0	3.28	0.00
1	9W	35.1	3.06	133.1	8.50	3.993	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1	10W	0.0	0.00	133.1	8.50	3.971	2	1301	0.01000	0.00	0.00	0	124	0	3.14	0.00
1	11W	24.8	2.27	157.9	9.35	4.697	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.02
1	12W	0.0	0.00	157.9	9.35	4.678	2	779	0.00750	0.00	0.00	0	124	0	3.07	0.00
1	13W	36.2	3.91	194.1	11.68	5.928	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.05
1	14W	0.0	0.00	194.1	11.68	5.909	2	915	0.01440	0.00	0.00	0	124	0	3.00	0.00
1	15W	33.0	3.78	227.1	14.32	7.119	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.07
1	16W	0.0	0.00	227.1	14.32	7.100	2	796	0.01390	0.00	0.00	0	124	0	2.86	0.00
1	17W	39.5	4.95	266.6	18.10	8.684	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.10
1	18W	0.0	0.00	266.6	18.10	8.656	2	930	0.01200	0.00	0.00	0	124	0	2.71	0.00
1	19W	32.8	3.90	299.4	20.87	9.904	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	20W	0.0	0.00	299.4	20.87	9.874	2	774	0.00940	0.00	0.00	0	124	0	2.57	0.00
1	21W	35.4	4.21	334.8	23.60	11.220	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	22W	0.0	0.00	334.8	23.60	11.167	2	1066	0.00820	0.00	0.00	0	124	0	2.57	0.00
1	23W	19.1	2.21	353.9	24.11	11.874	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.10
1	24W	0.0	0.00	353.9	24.11	11.815	2	860	0.00630	0.00	0.00	0	134	0	2.50	0.00
1	25W	11.4	1.32	365.3	24.15	12.236	0	0	0.00000	0.00	0.00	0	134	30	2.50	0.10
1	26W	0.0	0.00	365.3	24.15	12.187	2	684	0.00730	0.00	0.00	0	134	0	2.50	0.00
1	27W	22.7	2.55	388.0	24.69	13.003	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.10
1	28W	0.0	0.00	388.0	24.69	12.866	2	1949	0.01030	0.00	0.00	0	134	0	2.43	0.00
1	29X	7.3	0.87	7.3	0.87	0.278	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	30X	0.0	0.00	7.3	0.87	0.201	2	1088	0.00760	0.00	0.00	0	124	0	2.57	0.00
1	31X	23.1	2.67	30.4	3.15	1.055	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.10
1	32X	0.0	0.00	30.4	3.15	1.054	2	882	0.01350	0.00	0.00	0	124	0	2.50	0.00
1	33X	13.0	1.46	43.4	4.36	1.521	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1	34X	0.0	0.00	43.4	4.36	1.521	2	429	0.01290	0.00	0.00	0	124	0	2.43	0.00
1	35X	18.5	2.08	61.9	6.16	2.186	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1	36X	0.0	0.00	61.9	6.16	2.186	2	1115	0.01280	0.00	0.00	0	124	0	2.43	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   37W  TW 1209 QW    24.14 QWX    27.32 QX     3.18       1   37X  TX 1181 QX     5.99
QX4528407160609859400000000000000000000000000000000.00 QœW    18.61 Q□     1.#R
*                                     1   37WX TWX 1204 QWX    27.53 QW    23.87 QX     3.67
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	5.99	449.9	27.53	15.000	2	642	0.00980	0.00	0.00	0	124	0	2.43	0.00
1	38W	19.2	1.72	469.1	27.87	15.551	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.06
1	39W	0.0	0.00	469.1	27.87	15.424	2	1430	0.00960	0.00	0.00	0	124	0	2.36	0.00
1	40Y	6.4	0.76	6.4	0.76	0.243	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	41Y	0.0	0.00	6.4	0.76	0.152	2	970	0.00890	0.00	0.00	0	124	0	2.57	0.00
1	42Y	11.2	1.33	17.6	1.85	0.578	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	43Y	0.0	0.00	17.6	1.85	0.576	2	831	0.01140	0.00	0.00	0	124	0	2.57	0.00
1	44Y	15.6	1.80	33.2	3.33	1.153	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.10
1	45Y	0.0	0.00	33.2	3.33	1.152	2	883	0.01070	0.00	0.00	0	124	0	2.50	0.00
1	46Y	9.5	1.07	42.7	4.06	1.494	0	0	0.00000	0.00	0.00	0	124	30	2.43	0.10
1	47Y	0.0	0.00	42.7	4.06	1.492	2	390	0.01680	0.00	0.00	0	124	0	2.43	0.00
1	48Y	13.1	1.43	55.8	5.18	1.949	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.10
1	49Y	0.0	0.00	55.8	5.18	1.949	2	658	0.01670	0.00	0.00	0	124	0	2.36	0.00
1	50Y	24.4	2.07	80.2	6.75	2.612	0	0	0.00000	0.00	0.00	0	124	30	2.36	0.05
1	51Y	0.0	0.00	80.2	6.75	2.607	2	1416	0.01050	0.00	0.00	0	124	0	2.36	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52W  TW 1218 QW    27.69 QWY    31.64 QY     3.95       1   52Y  TY 1187 QY     6.48 QY     0.00 Q¡W    22.81 Q□     1.#R
*                                     1   52WY TWY 1210 QWY    31.93 QW    27.31 QY     4.62
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	6.48	549.3	31.93	17.843	2	1623	0.00800	0.00	0.00	0	124	0	2.36	0.00
1	53Z	12.8	1.69	12.8	1.69	0.542	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.10
1	54Z	0.0	0.00	12.8	1.69	0.540	2	1273	0.01320	0.00	0.00	0	124	0	2.86	0.00
1	55Z	24.9	3.20	37.7	4.39	1.565	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.10
1	56Z	0.0	0.00	37.7	4.39	1.564	2	1086	0.01170	0.00	0.00	0	124	0	2.78	0.00
1	57Z	25.8	3.15	63.5	6.86	2.572	0	0	0.00000	0.00	0.00	0	124	30	2.64	0.10
1	58Z	0.0	0.00	63.5	6.86	2.571	2	863	0.01350	0.00	0.00	0	124	0	2.64	0.00
1	59Z	30.1	3.58	93.6	9.66	3.715	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1	60Z	0.0	0.00	93.6	9.66	3.711	2	922	0.01230	0.00	0.00	0	124	0	2.57	0.00
1	61Z	28.0	3.24	121.6	11.97	4.746	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.10
1	62Z	0.0	0.00	121.6	11.97	4.735	2	907	0.01020	0.00	0.00	0	124	0	2.50	0.00
1	63Z	32.7	3.78	154.3	14.37	5.944	0	0	0.00000	0.00	0.00	0	124	30	2.50	0.10
1	64Z	0.0	0.00	154.3	14.37	5.926	2	1048	0.01130	0.00	0.00	0	124	0	2.50	0.00
1	65Z	25.7	2.25	180.0	15.33	6.644	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.05
1	66Z	0.0	0.00	180.0	15.33	6.621	2	1003	0.01240	0.00	0.00	0	134	0	2.43	0.00
1	67Z	9.1	0.61	189.1	15.25	6.817	0	0	0.00000	0.00	0.00	0	134	30	2.43	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 68Z	0.0	0.00	189.1	15.25	6.806	2	399	0.01470	0.00	0.00	0	134	0	2.43	0.00
1 69Z	24.4	1.60	213.5	15.71	7.318	0	0	0.00000	0.00	0.00	0	134	30	2.36	0.01
1 70Z	0.0	0.00	213.5	15.71	7.285	2	1072	0.01280	0.00	0.00	0	134	0	2.36	0.00
1 71Z	27.0	1.71	240.5	16.03	7.832	0	0	0.00000	0.00	0.00	0	134	30	2.28	0.01
1 72Z	0.0	0.00	240.5	16.03	7.773	2	1351	0.00920	0.00	0.00	0	134	0	2.28	0.00

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**************************************************************************************************************************
*                                                                         CONFLUENCE Q'S                                 *
* 1   73W  TW 1223 QW    31.73 QWZ    46.12 QZ    14.40       1   73Z  TZ 1207 QZ    15.82 QZ-
40609368526123449000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000.00 Q•W    30.48 Q□     1.#R
*                                        1   73WZ TWZ 1214 QWZ    46.84 QW    31.35 QZ    15.49
**************************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	15.82	789.8	46.84	25.615	2	5	0.01000	0.00	0.00	0	134	0	2.28	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\Basin100A.lac Run date: Fri Sep 25 10:20:24 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.08	8.2	1.08	0.347	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.10
1 102A	0.0	0.00	8.2	1.08	0.322	2	1080	0.01170	0.00	0.00	0	124	0	2.86	0.00
1 103A	17.4	2.18	25.6	2.94	1.020	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.10
1 104A	0.0	0.00	25.6	2.94	1.019	2	846	0.01260	0.00	0.00	0	124	0	2.71	0.00
1 105A	18.4	2.25	44.0	4.82	1.738	0	0	0.00000	0.00	0.00	0	124	30	2.64	0.10
1 106A	0.0	0.00	44.0	4.82	1.737	2	782	0.01420	0.00	0.00	0	124	0	2.64	0.00
1 107A	24.3	2.89	68.3	7.19	2.661	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1 108A	0.0	0.00	68.3	7.19	2.661	2	822	0.01180	0.00	0.00	0	124	0	2.57	0.00
1 109A	21.0	2.50	89.3	9.05	3.459	0	0	0.00000	0.00	0.00	0	124	30	2.57	0.10
1 110A	0.0	0.00	89.3	9.05	3.457	2	717	0.01020	0.00	0.00	0	124	0	2.57	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 10 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q10\Basin100B.lac Run date: Fri Sep 25 11:44:32 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	3.33	30.0	3.33	1.065	0	0	0.00000	0.00	0.00	0	124	30	4.00	0.01
1 14B	22.1	2.50	52.1	5.83	1.864	0	0	0.00000	0.00	0.00	0	134	30	4.07	0.01
1 20B	38.7	4.45	90.8	10.28	3.286	0	0	0.00000	0.00	0.00	0	124	30	4.14	0.01
1 21B	11.2	1.31	102.0	11.58	3.698	0	0	0.00000	0.00	0.00	0	134	29	4.14	0.01
1 28B	24.5	3.17	126.5	14.75	4.662	0	0	0.00000	0.00	0.00	0	134	27	4.43	0.01
1 29B	7.6	0.93	134.1	15.68	4.961	0	0	0.00000	0.00	0.00	0	124	30	4.43	0.01
1 35B	15.5	2.00	149.6	17.68	5.599	0	0	0.00000	0.00	0.00	0	124	30	4.64	0.01
1 36B	29.0	3.79	178.6	21.47	6.812	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 100B	67.1	239.25	245.7	259.91	14.753	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	259.91	14.755	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	5.91	271.7	260.27	15.896	0	0	0.00000	0.00	0.00	0	124	18	4.86	0.01
1 103B	0.0	0.00	271.7	260.27	15.897	2	1058	0.04570	0.00	0.00	0	124	0	4.86	0.00
1 104B	24.8	3.24	296.5	251.59	16.934	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 105B	0.0	0.00	296.5	251.59	16.923	2	1470	0.02950	0.00	0.00	0	124	0	4.71	0.00
1 106B	18.1	2.37	314.6	224.52	17.658	0	0	0.00000	0.00	0.00	0	124	28	4.57	0.01
1 107B	0.0	0.00	314.6	224.52	17.649	2	959	0.01820	0.00	0.00	0	124	0	4.57	0.00
1 108C	515.6	1074.08	515.6	1074.08	60.443	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	515.6	1074.08	60.515	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	5.27	555.3	1064.22	62.199	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 111C	0.0	0.00	555.3	1064.22	62.211	2	1568	0.03970	0.00	0.00	0	124	0	4.78	0.00
1 112D	37.7	5.00	37.7	5.00	1.600	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 113D	0.0	0.00	37.7	5.00	1.600	2	2150	0.02780	0.00	0.00	0	124	0	4.78	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  114C  TC 1159 QC  1052.06 QCD  1055.04 QD     2.98       1  114D  TD 1176 QD     4.60 QD    -0.00 QŠC   129.10 Q□     1.#R
*                                      1  114CD TCD 1159 QCD  1055.04 QC  1052.06 QD     2.98
*****************************************************************************************************************
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	4.60	593.0	1055.04	63.817	2	1532	0.02480	0.00	0.00	0	124	0	4.78	0.00
1 115C	12.0	1.63	605.0	1036.69	64.304	0	0	0.00000	0.00	0.00	0	124	26	4.57	0.01
1 116C	0.0	0.00	605.0	1036.69	64.263	2	949	0.01960	0.00	0.00	0	124	0	4.57	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1  117B  TB 1162 QB   206.91 QBC  1210.16 QC  1003.25       1  117C  TC 1163 QC  1026.95 QC     0.00 Q□B   198.56 Q□     1.#R
*                                      1  117BC TBC 1163 QBC  1225.51 QB   198.56 QC  1026.95
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	605.0	1026.95	919.6	1225.51	81.831	2	1210	0.01230	0.00	0.00	0	124	0	4.57	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 118B	34.1	4.05	953.7	1194.00	83.126	0	0	0.00000	0.00	0.00	0	124	30	4.28	0.01
1 119B	0.0	0.00	953.7	1194.00	83.031	2	944	0.01350	0.00	0.00	0	124	0	4.28	0.00
1 120E	31.1	4.07	31.1	4.07	1.300	0	0	0.00000	0.00	0.00	0	124	30	4.71	0.01
1 121E	0.0	0.00	31.1	4.07	1.300	2	2049	0.03100	0.00	0.00	0	124	0	4.71	0.00
1 122E	18.9	3.43	50.0	5.94	2.084	0	0	0.00000	0.00	0.00	0	124	19	4.64	0.01
1 123E	0.0	0.00	50.0	5.94	2.082	2	866	0.03040	0.00	0.00	0	124	0	4.64	0.00
1 124E	37.4	4.67	87.4	10.21	3.576	0	0	0.00000	0.00	0.00	0	134	30	4.50	0.01
1 125E	0.0	0.00	87.4	10.21	3.571	2	1753	0.01750	0.00	0.00	0	134	0	4.50	0.00
1 126E	21.3	4.85	108.7	11.03	4.418	0	0	0.00000	0.00	0.00	0	134	19	4.36	0.01
1 127E	0.0	0.00	108.7	11.03	4.410	2	919	0.01770	0.00	0.00	0	134	0	4.36	0.00
1 128E	16.6	3.25	125.3	12.51	5.052	0	0	0.00000	0.00	0.00	0	134	20	4.28	0.01
1 129E	0.0	0.00	125.3	12.51	5.040	2	904	0.01440	0.00	0.00	0	134	0	4.28	0.00

****

*   CONFLUENCE Q'S   *
* 1 130B TB 1168 QB 1177.50 QBE 1189.47 QE   11.97   1 130E TE 1173 QE   12.33 QE-
193633897998381370000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000.00 QdB   932.85 Q□   1.#R
*   1 130BE TBE 1168 QBE 1189.47 QB 1177.50 QE   11.97

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	12.33	1079.0	1189.47	87.913	2	1100	0.01140	0.00	0.00	0	134	0	4.28	0.00
1 131F	13.6	6.58	13.6	6.58	0.611	0	0	0.00000	0.00	0.00	0	134	13	4.64	0.01
1 132F	0.0	0.00	13.6	6.58	0.610	2	906	0.03180	0.00	0.00	0	134	0	4.64	0.00
1 133F	26.6	6.06	40.2	10.99	1.720	0	0	0.00000	0.00	0.00	0	134	21	4.57	0.01
1 134F	0.0	0.00	40.2	10.99	1.720	2	1224	0.02140	0.00	0.00	0	134	0	4.57	0.00
1 135F	37.2	4.57	77.4	13.88	3.183	0	0	0.00000	0.00	0.00	0	134	30	4.43	0.01
1 136F	0.0	0.00	77.4	13.88	3.180	2	1787	0.01630	0.00	0.00	0	134	0	4.43	0.00
1 137F	24.5	4.79	101.9	13.08	4.127	0	0	0.00000	0.00	0.00	0	134	20	4.28	0.01
1 138F	0.0	0.00	101.9	13.08	4.123	2	979	0.01940	0.00	0.00	0	134	0	4.28	0.00
1 139F	14.3	3.15	116.2	13.27	4.670	0	0	0.00000	0.00	0.00	0	134	18	4.21	0.01
1 140F	0.0	0.00	116.2	13.27	4.661	2	790	0.01440	0.00	0.00	0	134	0	4.21	0.00

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*   CONFLUENCE Q'S   *
* 1 141B TB 1170 QB 1168.27 QBF 1179.51 QF   11.24   1 141F TF 1190 QF   13.06 QF-23109968.00 Q#B   266.63 Q□   1.#R
*   1 141BF TBF 1170 QBF 1179.51 QB 1168.27 QF   11.24

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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	13.06	1195.2	1179.51	92.332	2	1041	0.00840	0.00	0.00	0	134	0	4.21	0.00
1 142B	27.0	2.95	1222.2	1152.10	93.274	0	0	0.00000	0.00	0.00	0	124	30	3.93	0.01
1 143B	0.0	0.00	1222.2	1152.10	93.088	2	872	0.01000	0.00	0.00	0	124	0	3.93	0.00
1 144B	24.7	2.59	1246.9	1139.82	93.917	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.01
1 145B	0.0	0.00	1246.9	1139.82	93.633	2	1127	0.01000	0.00	0.00	0	124	0	3.78	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 10 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 10

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 146B	26.0	2.63	1272.9	1113.76	94.473	0	0	0.00000	0.00	0.00	0	124	30	3.64	0.01
1 147B	0.0	0.00	1272.9	1113.76	94.161	2	1083	0.00870	0.00	0.00	0	124	0	3.64	0.00
1 148B	22.6	2.20	1295.5	1086.86	94.864	0	0	0.00000	0.00	0.00	0	124	30	3.50	0.01
1 149B	0.0	0.00	1295.5	1086.86	94.570	2	872	0.00640	0.00	0.00	0	124	0	3.50	0.00
1 150B	28.5	2.59	1324.0	1065.63	95.400	0	0	0.00000	0.00	0.00	0	124	30	3.28	0.01
1 151B	0.0	0.00	1324.0	1065.63	95.007	2	1358	0.01000	0.00	0.00	0	124	0	3.28	0.00
1 152B	23.4	2.04	1347.4	1031.93	95.659	0	0	0.00000	0.00	0.00	0	124	30	3.14	0.01
1 153B	0.0	0.00	1347.4	1031.93	95.284	2	1217	0.00940	0.00	0.00	0	124	0	3.14	0.00
1 154B	20.9	1.87	1368.3	1004.63	95.882	0	0	0.00000	0.00	0.00	0	124	30	3.00	0.02
1 155B	0.0	0.00	1368.3	1004.63	95.671	2	807	0.01170	0.00	0.00	0	124	0	3.00	0.00
1 156B	26.1	2.75	1394.4	996.93	96.551	0	0	0.00000	0.00	0.00	0	124	30	2.93	0.05
1 157B	0.0	0.00	1394.4	996.93	96.296	2	966	0.01090	0.00	0.00	0	124	0	2.93	0.00
1 158B	26.4	2.72	1420.8	983.43	97.165	0	0	0.00000	0.00	0.00	0	124	30	2.86	0.05
1 159B	0.0	0.00	1420.8	983.43	96.889	2	973	0.01030	0.00	0.00	0	124	0	2.86	0.00
1 160B	29.7	2.97	1450.5	970.47	97.840	0	0	0.00000	0.00	0.00	0	124	30	2.78	0.05
1 161B	0.0	0.00	1450.5	970.47	97.488	2	1044	0.00880	0.00	0.00	0	124	0	2.78	0.00
1 162B	27.9	3.03	1478.4	949.72	98.458	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.07
1 163B	0.0	0.00	1478.4	949.72	98.102	2	1101	0.01000	0.00	0.00	0	124	0	2.71	0.00
1 164B	25.2	3.16	1503.6	930.00	99.113	0	0	0.00000	0.00	0.00	0	124	30	2.71	0.10
1 165B	0.0	0.00	1503.6	930.00	98.770	2	1034	0.00970	0.00	0.00	0	124	0	2.71	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN A PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinA.lac Run date: Fri Sep 25 11:01:52 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1A	40.0	4.10	40.0	4.10	1.310	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1	2A	0.0	0.00	40.0	4.10	1.306	2	2398	0.00920	0.00	0.00	0	124	0	3.69	0.00
1	3A	39.8	3.69	79.8	5.87	2.486	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.01
1	4A	0.0	0.00	79.8	5.87	2.475	2	1498	0.00970	0.00	0.00	0	124	0	3.34	0.00
1	5A	38.3	3.36	118.1	7.87	3.549	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	6A	0.0	0.00	118.1	7.87	3.532	2	1253	0.00910	0.00	0.00	0	124	0	3.16	0.00
1	7A	32.4	2.76	150.5	9.36	4.415	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	8A	0.0	0.00	150.5	9.36	4.394	2	1114	0.01010	0.00	0.00	0	124	0	3.07	0.00
1	9A	27.7	3.32	178.2	11.10	5.456	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.07
1	10A	0.0	0.00	178.2	11.10	5.423	2	1242	0.00870	0.00	0.00	0	124	0	2.99	0.00
1	11A	33.9	4.69	212.1	13.59	6.923	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.10
1	12A	0.0	0.00	212.1	13.59	6.877	2	1469	0.00990	0.00	0.00	0	124	0	2.99	0.00
1	13A	38.9	5.22	251.0	16.39	8.546	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.10
1	14A	0.0	0.00	251.0	16.39	8.498	2	1177	0.00870	0.00	0.00	0	134	0	2.90	0.00
1	15A	38.3	4.98	289.3	19.15	10.090	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1	16A	0.0	0.00	289.3	19.15	10.047	2	994	0.01040	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN B PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinB.lac Run date: Fri Sep 25 11:05:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1B	22.1	4.08	22.1	4.08	1.305	0	0	0.00000	0.00	0.00	0	124	30	3.99	0.10
1	2B	0.0	0.00	22.1	4.08	1.299	2	2664	0.00930	0.00	0.00	0	124	0	3.99	0.00
1	3B	39.9	5.19	62.0	6.93	2.958	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.10
1	4B	0.0	0.00	62.0	6.93	2.948	2	1443	0.01240	0.00	0.00	0	124	0	2.81	0.00
1	5B	39.0	3.72	101.0	9.73	4.137	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.04
1	6B	0.0	0.00	101.0	9.73	4.129	2	732	0.01030	0.00	0.00	0	124	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinC.lac Run date: Tue Sep 29 13:49:47 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1C	17.8	2.69	17.8	2.69	0.860	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1	2C	0.0	0.00	17.8	2.69	0.859	2	1591	0.02010	0.00	0.00	0	124	0	5.44	0.00
1	3C	15.5	2.27	33.3	4.44	1.584	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1	4C	0.0	0.00	33.3	4.44	1.583	2	1045	0.01800	0.00	0.00	0	124	0	5.27	0.00
1	5C	29.5	4.17	62.8	7.79	2.916	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1	6C	0.0	0.00	62.8	7.79	2.914	2	1347	0.01730	0.00	0.00	0	124	0	5.09	0.00
1	7C	25.1	3.48	87.9	10.30	4.028	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	8C	0.0	0.00	87.9	10.30	4.021	2	1037	0.01750	0.00	0.00	0	124	0	5.00	0.00
1	9C	20.7	2.83	108.6	12.23	4.925	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1	10C	0.0	0.00	108.6	12.23	4.918	2	733	0.01640	0.00	0.00	0	124	0	4.92	0.00
1	11C	25.8	3.46	134.4	14.64	6.024	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1	12C	0.0	0.00	134.4	14.64	6.014	2	713	0.01620	0.00	0.00	0	124	0	4.83	0.00
1	13C	31.9	4.28	166.3	17.65	7.382	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1	14C	0.0	0.00	166.3	17.65	7.366	2	939	0.01560	0.00	0.00	0	124	0	4.83	0.00
1	15C	34.6	4.55	200.9	20.73	8.822	0	0	0.00000	0.00	0.00	0	124	30	4.74	0.01
1	16C	0.0	0.00	200.9	20.73	8.800	2	903	0.01260	0.00	0.00	0	124	0	4.74	0.00
1	17C	32.8	4.16	233.7	23.36	10.131	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	18C	0.0	0.00	233.7	23.36	10.098	2	1112	0.01420	0.00	0.00	0	124	0	4.57	0.00
1	19C	23.2	2.83	256.9	24.63	11.002	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	20C	0.0	0.00	256.9	24.63	10.956	2	1160	0.01210	0.00	0.00	0	124	0	4.39	0.00
1	21C	29.7	3.40	286.6	25.33	12.045	0	0	0.00000	0.00	0.00	0	124	30	4.13	0.01
1	22C	0.0	0.00	286.6	25.33	11.966	2	1549	0.01130	0.00	0.00	0	124	0	4.13	0.00
1	23C	35.4	3.63	322.0	25.92	13.126	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1	24C	0.0	0.00	322.0	25.92	12.997	2	1993	0.01060	0.00	0.00	0	124	0	3.69	0.00
1	25C	28.1	2.67	350.1	26.06	13.851	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1	26C	0.0	0.00	350.1	26.06	13.791	2	765	0.00890	0.00	0.00	0	124	0	3.42	0.00
1	27C	35.0	3.07	385.1	26.61	14.773	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1	28C	0.0	0.00	385.1	26.61	14.601	2	1922	0.00820	0.00	0.00	0	124	0	3.16	0.00
1	29C	34.0	2.90	419.1	26.72	15.528	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1	30C	0.0	0.00	419.1	26.72	15.401	2	1457	0.01040	0.00	0.00	0	124	0	3.07	0.00
1	31C	29.3	2.43	448.4	26.95	16.179	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1	32C	0.0	0.00	448.4	26.95	16.065	2	1251	0.01080	0.00	0.00	0	124	0	2.99	0.00
1	33C	35.6	4.35	484.0	27.52	17.457	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.08
1	34C	0.0	0.00	484.0	27.52	17.251	2	2107	0.01100	0.00	0.00	0	124	0	2.90	0.00
1	35D	16.7	2.12	16.7	2.12	0.678	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	36D	0.0	0.00	16.7	2.12	0.676	2	1299	0.01300	0.00	0.00	0	134	0	4.57	0.00
1	37D	29.0	3.53	45.7	5.07	1.807	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	38D	0.0	0.00	45.7	5.07	1.806	2	1308	0.01380	0.00	0.00	0	124	0	4.39	0.00
1	39D	29.9	3.49	75.6	7.69	2.923	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1	40D	0.0	0.00	75.6	7.69	2.915	2	1530	0.01050	0.00	0.00	0	124	0	4.21	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41D	21.4	2.35	97.0	8.67	3.665	0	0	0.00000	0.00	0.00	0	124	30	3.95	0.01
1 42D	0.0	0.00	97.0	8.67	3.649	2	1185	0.01070	0.00	0.00	0	124	0	3.95	0.00
1 43D	26.1	2.67	123.1	9.63	4.504	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 44D	0.0	0.00	123.1	9.63	4.473	2	1524	0.01060	0.00	0.00	0	124	0	3.69	0.00
1 45D	30.2	2.94	153.3	10.41	5.415	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 46D	0.0	0.00	153.3	10.41	5.363	2	1697	0.00840	0.00	0.00	0	124	0	3.51	0.00
1 47D	30.2	2.65	183.5	10.68	6.210	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 48D	0.0	0.00	183.5	10.68	6.168	2	1239	0.00990	0.00	0.00	0	124	0	3.16	0.00
1 49D	39.0	3.32	222.5	12.07	7.231	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1 50D	0.0	0.00	222.5	12.07	7.167	2	1500	0.00870	0.00	0.00	0	124	0	3.07	0.00
1 51D	31.8	3.42	254.3	13.45	8.261	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.05
1 52D	0.0	0.00	254.3	13.45	8.209	2	1258	0.01140	0.00	0.00	0	124	0	2.99	0.00
1 53D	23.0	3.18	277.3	14.98	9.226	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.10
1 54D	0.0	0.00	277.3	14.98	9.161	2	1118	0.00760	0.00	0.00	0	124	0	2.99	0.00
1 55D	14.6	1.96	291.9	15.45	9.788	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.10
1 56D	0.0	0.00	291.9	15.45	9.716	2	1256	0.00990	0.00	0.00	0	124	0	2.90	0.00

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*****************************************************************************************************************
*                                                   CONFLUENCE Q'S                                              *
* 1   57C  TC 1259 QC    27.25 QCD    39.95 QD    12.70       1   57D  TD 1194 QD    15.21 QD     0.00 QwC    22.25 Qç     0.00
*                                        1   57CD TCD 1257 QCD    39.98 QC    27.23 QD    12.75
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 57CD	291.9	15.21	775.9	39.98	26.965	2	5	0.00100	0.00	0.00	0	124	0	2.90	0.00
1 58E	12.6	1.69	12.6	1.69	0.541	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.10
1 59E	0.0	0.00	12.6	1.69	0.539	2	1440	0.01150	0.00	0.00	0	124	0	2.90	0.00
1 60E	28.7	3.73	41.3	4.76	1.733	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.10
1 61E	0.0	0.00	41.3	4.76	1.719	2	3334	0.01150	0.00	0.00	0	124	0	2.81	0.00
1 62F	16.5	2.45	16.5	2.45	0.785	0	0	0.00000	0.00	0.00	0	124	30	5.36	0.01
1 63F	0.0	0.00	16.5	2.45	0.784	2	1673	0.02100	0.00	0.00	0	124	0	5.36	0.00
1 64F	24.0	3.51	40.5	5.34	1.907	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1 65F	0.0	0.00	40.5	5.34	1.906	2	955	0.02000	0.00	0.00	0	124	0	5.27	0.00
1 66F	33.9	4.79	74.4	9.48	3.438	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1 67F	0.0	0.00	74.4	9.48	3.436	2	1251	0.01830	0.00	0.00	0	124	0	5.09	0.00
1 68F	29.6	4.11	104.0	12.70	4.750	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1 69F	0.0	0.00	104.0	12.70	4.744	2	1122	0.01740	0.00	0.00	0	124	0	5.00	0.00
1 70F	25.9	3.54	129.9	15.17	5.875	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1 71F	0.0	0.00	129.9	15.17	5.864	2	874	0.01460	0.00	0.00	0	124	0	4.92	0.00
1 72F	26.7	3.58	156.6	17.45	7.009	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 73F	0.0	0.00	156.6	17.45	6.993	2	907	0.01500	0.00	0.00	0	124	0	4.83	0.00
1 74F	29.9	3.93	186.5	19.71	8.252	0	0	0.00000	0.00	0.00	0	124	30	4.74	0.01
1 75F	0.0	0.00	186.5	19.71	8.232	2	876	0.01400	0.00	0.00	0	124	0	4.74	0.00
1 76F	39.5	5.01	226.0	22.60	9.834	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 77F	0.0	0.00	226.0	22.60	9.808	2	987	0.01600	0.00	0.00	0	124	0	4.57	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 78F	38.8	4.73	264.8	25.35	11.321	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 79F	0.0	0.00	264.8	25.35	11.290	2	900	0.01300	0.00	0.00	0	124	0	4.39	0.00
1 80F	39.6	4.63	304.4	27.99	12.770	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 81F	0.0	0.00	304.4	27.99	12.738	2	831	0.01430	0.00	0.00	0	124	0	4.21	0.00
1 82F	39.9	4.47	344.3	30.56	14.169	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 83F	0.0	0.00	344.3	30.56	14.131	2	829	0.01210	0.00	0.00	0	124	0	4.04	0.00
1 84F	39.8	4.26	384.1	32.79	15.494	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 85F	0.0	0.00	384.1	32.79	15.449	2	853	0.01170	0.00	0.00	0	124	0	3.86	0.00
1 86F	39.1	4.19	423.2	34.68	16.788	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 87F	0.0	0.00	423.2	34.68	16.715	2	1094	0.00990	0.00	0.00	0	124	0	3.86	0.00
1 88F	22.9	2.35	446.1	34.91	17.465	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 89F	0.0	0.00	446.1	34.91	17.392	2	845	0.00780	0.00	0.00	0	124	0	3.69	0.00
1 90F	36.2	3.44	482.3	35.67	18.491	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.01
1 91F	0.0	0.00	482.3	35.67	18.333	2	1675	0.00880	0.00	0.00	0	124	0	3.42	0.00
1 92F	23.7	2.08	506.0	35.67	18.998	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.01
1 93F	0.0	0.00	506.0	35.67	18.866	2	1298	0.00950	0.00	0.00	0	124	0	3.16	0.00
1 94F	17.9	1.53	523.9	35.74	19.354	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.01
1 95F	0.0	0.00	523.9	35.74	19.236	2	1020	0.00840	0.00	0.00	0	124	0	3.07	0.00
1 96F	22.5	1.87	546.4	35.94	19.834	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 97F	0.0	0.00	546.4	35.94	19.638	2	1387	0.00640	0.00	0.00	0	124	0	2.99	0.00
1 98F	21.4	1.78	567.8	35.90	20.206	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.01
1 99F	0.0	0.00	567.8	35.90	20.060	2	1222	0.00990	0.00	0.00	0	124	0	2.99	0.00
1 100F	16.7	2.24	584.5	36.10	20.777	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.10
1 101F	0.0	0.00	584.5	36.10	20.632	2	1247	0.01150	0.00	0.00	0	124	0	2.90	0.00
1 102F	23.0	2.99	607.5	36.42	21.589	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.10
1 103F	0.0	0.00	607.5	36.42	21.168	2	3287	0.01110	0.00	0.00	0	124	0	2.81	0.00
1 104G	18.2	2.44	18.2	2.44	0.781	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.10
1 105G	0.0	0.00	18.2	2.44	0.780	2	1898	0.01040	0.00	0.00	0	134	0	2.90	0.00
1 106G	39.9	4.50	58.1	5.76	2.218	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.07
1 107G	0.0	0.00	58.1	5.76	2.202	2	2469	0.00900	0.00	0.00	0	134	0	2.81	0.00
1 109C	21.4	2.78	797.3	40.40	27.855	0	0	0.00000	0.00	0.00	0	124	30	2.81	0.10
1 108CE	41.3	3.97	838.6	42.16	29.574	0	0	0.00000	0.00	0.00	0	124	0	2.81	0.00
1 109CF	607.5	35.58	1446.1	77.15	50.742	0	0	0.00000	0.00	0.00	0	124	0	2.81	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                                *
* 1  110C  TC 1262 QC    77.15 QCG    78.94 QG     1.80       1  110G  TG 1193 QG     5.12
QG175206155735623870000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000.00 QçC    65.79 Qç     0.00
*                                          1  110CG TCG 1261 QCG    78.96 QC    77.14 QG     1.82
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN C PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 110CG	58.1	5.12	1504.2	78.96	52.320	2	2279	0.00940	0.00	0.00	0	124	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN H PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinH.lac Run date: Fri Sep 25 11:55:59 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1H	19.0	2.55	19.0	2.55	0.815	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.10
1	2H	0.0	0.00	19.0	2.55	0.814	2	1718	0.00900	0.00	0.00	0	134	0	2.90	0.00
1	3H	39.5	3.54	58.5	5.00	1.945	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.03
1	4H	0.0	0.00	58.5	5.00	1.939	2	1850	0.01100	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinI.lac Run date: Tue Sep 29 17:13:36 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1I	10.8	1.53	10.8	1.53	0.488	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1	2I	0.0	0.00	10.8	1.53	0.487	2	1416	0.01690	0.00	0.00	0	124	0	5.09	0.00
1	3I	18.1	2.51	28.9	3.61	1.290	0	0	0.00000	0.00	0.00	0	124	30	5.00	0.01
1	4I	0.0	0.00	28.9	3.61	1.290	2	929	0.01630	0.00	0.00	0	124	0	5.00	0.00
1	5I	12.8	1.83	41.7	5.04	1.858	0	0	0.00000	0.00	0.00	0	124	28	5.00	0.01
1	6I	0.0	0.00	41.7	5.04	1.857	2	459	0.01690	0.00	0.00	0	124	0	5.00	0.00
1	7I	16.5	2.65	58.2	6.98	2.583	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	8I	0.0	0.00	58.2	6.98	2.583	2	616	0.01360	0.00	0.00	0	134	0	4.92	0.00
1	9I	25.9	4.16	84.1	10.20	3.723	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	10I	0.0	0.00	84.1	10.20	3.721	2	879	0.01490	0.00	0.00	0	134	0	4.92	0.00
1	11I	26.8	4.00	110.9	13.20	4.875	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1	12I	0.0	0.00	110.9	13.20	4.866	2	968	0.01270	0.00	0.00	0	134	0	4.83	0.00
1	13I	31.1	4.01	142.0	16.13	6.150	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1	14I	0.0	0.00	142.0	16.13	6.131	2	1180	0.01260	0.00	0.00	0	134	0	4.65	0.00
1	15I	37.7	4.78	179.7	18.81	7.661	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	16I	0.0	0.00	179.7	18.81	7.626	2	1443	0.01290	0.00	0.00	0	134	0	4.57	0.00
1	17I	27.6	3.29	207.3	19.49	8.680	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1	18I	0.0	0.00	207.3	19.49	8.651	2	900	0.01190	0.00	0.00	0	134	0	4.30	0.00
1	19I	25.5	2.98	232.8	20.23	9.604	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1	20I	0.0	0.00	232.8	20.23	9.574	2	838	0.01250	0.00	0.00	0	134	0	4.21	0.00
1	21I	37.2	4.17	270.0	21.95	10.908	0	0	0.00000	0.00	0.00	0	134	30	4.04	0.01
1	22I	0.0	0.00	270.0	21.95	10.854	2	1165	0.01030	0.00	0.00	0	134	0	4.04	0.00
1	23I	34.3	3.68	304.3	23.06	12.030	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1	24I	0.0	0.00	304.3	23.06	11.976	2	1034	0.01070	0.00	0.00	0	134	0	3.86	0.00
1	25I	38.0	3.89	342.3	24.46	13.221	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1	26I	0.0	0.00	342.3	24.46	13.158	2	1049	0.01010	0.00	0.00	0	134	0	3.69	0.00
1	27I	39.5	3.66	381.8	25.61	14.329	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.01
1	28I	0.0	0.00	381.8	25.61	14.175	2	2077	0.00930	0.00	0.00	0	134	0	3.34	0.00
1	29I	29.4	3.25	411.2	25.67	15.214	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.05
1	30I	0.0	0.00	411.2	25.67	15.074	2	1661	0.00960	0.00	0.00	0	134	0	3.07	0.00
1	31I	39.6	5.48	450.8	26.63	16.826	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1	32I	0.0	0.00	450.8	26.63	16.707	2	1306	0.00980	0.00	0.00	0	134	0	2.99	0.00
1	33I	39.3	7.37	490.1	28.29	19.064	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.18
1	34I	0.0	0.00	490.1	28.29	18.911	2	1279	0.00660	0.00	0.00	0	134	0	2.99	0.00
1	35I	26.7	3.58	516.8	29.88	20.057	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.10
1	36I	0.0	0.00	516.8	29.88	19.972	2	878	0.01140	0.00	0.00	0	134	0	2.90	0.00
1	37I	37.9	4.05	554.7	32.01	21.268	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.06
1	38I	0.0	0.00	554.7	32.01	21.031	2	1809	0.00760	0.00	0.00	0	134	0	2.81	0.00
1	39J	27.8	3.53	27.8	3.53	1.128	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1	40J	0.0	0.00	27.8	3.53	1.127	2	1645	0.01190	0.00	0.00	0	134	0	4.57	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN I PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 41J	18.8	2.29	46.6	4.98	1.860	0	0	0.00000	0.00	0.00	0	134	30	4.39	0.01
1 42J	0.0	0.00	46.6	4.98	1.858	2	760	0.01290	0.00	0.00	0	134	0	4.39	0.00
1 43J	32.3	3.86	78.9	7.97	3.091	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1 44J	0.0	0.00	78.9	7.97	3.088	2	1022	0.01280	0.00	0.00	0	134	0	4.30	0.00
1 45J	32.3	3.70	111.2	10.74	4.272	0	0	0.00000	0.00	0.00	0	134	30	4.13	0.01
1 46J	0.0	0.00	111.2	10.74	4.260	2	1126	0.01150	0.00	0.00	0	134	0	4.13	0.00
1 47J	27.3	2.93	138.5	12.56	5.196	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 48J	0.0	0.00	138.5	12.56	5.176	2	1116	0.01060	0.00	0.00	0	134	0	3.86	0.00
1 49J	22.5	2.30	161.0	13.40	5.913	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1 50J	0.0	0.00	161.0	13.40	5.889	2	1019	0.01040	0.00	0.00	0	134	0	3.69	0.00
1 51J	18.6	1.72	179.6	13.61	6.440	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.01
1 52J	0.0	0.00	179.6	13.61	6.406	2	1085	0.00980	0.00	0.00	0	134	0	3.34	0.00
1 53J	35.3	4.24	214.9	14.66	7.763	0	0	0.00000	0.00	0.00	0	134	30	3.34	0.05
1 54J	0.0	0.00	214.9	14.66	7.711	2	1400	0.01030	0.00	0.00	0	134	0	3.34	0.00
1 55J	40.0	5.85	254.9	17.61	9.582	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.10
1 56J	0.0	0.00	254.9	17.61	9.505	2	1510	0.00790	0.00	0.00	0	134	0	3.16	0.00
1 57J	40.0	5.53	294.9	20.35	11.275	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1 58J	0.0	0.00	294.9	20.35	11.196	2	1410	0.00900	0.00	0.00	0	134	0	2.99	0.00
1 59J	37.3	9.23	332.2	25.70	14.148	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.29
1 60J	0.0	0.00	332.2	25.70	14.055	2	1434	0.00910	0.00	0.00	0	134	0	2.90	0.00
1 61J	28.5	3.71	360.7	27.27	15.240	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 62J	0.0	0.00	360.7	27.27	15.053	2	2082	0.00730	0.00	0.00	0	134	0	2.81	0.00

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*                                                CONFLUENCE Q'S                                                 *
* 1   63I  TI 1193 QI    30.95 QIJ    56.88 QJ    25.92       1   63J  TJ 1196 QJ    26.07 QJ-
2715248217031485600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000.00 Q□I    30.86 QÖ     0.00
*                                        1   63IJ TIJ 1195 QIJ    56.95 QI    30.91 QJ    26.04
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63IJ	360.7	26.07	915.4	56.95	36.083	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinK.lac Run date: Fri Sep 25 12:13:53 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1K	310.1	777.12	310.1	777.12	36.507	0	0	0.00000	0.00	0.00	0	120	9	8.00	0.01
1	2K	0.0	0.00	310.1	777.12	36.486	2	1160	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	3K	21.5	7.50	331.6	772.77	37.610	0	0	0.00000	0.00	0.00	0	124	18	5.62	0.01
1	4K	0.0	0.00	331.6	772.77	37.609	2	571	0.03050	0.00	0.00	0	124	0	5.62	0.00
1	5K	39.6	6.30	371.2	773.40	39.555	0	0	0.00000	0.00	0.00	0	124	30	5.53	0.01
1	6B	39.7	5.16	39.7	5.16	1.651	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1	6K	0.0	0.00	371.2	773.40	39.564	2	1014	0.02040	0.00	0.00	0	134	0	2.81	0.00
1	7K	39.6	5.98	410.8	763.45	41.476	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1	8K	0.0	0.00	410.8	763.45	41.497	2	1054	0.01830	0.00	0.00	0	124	0	5.44	0.00
1	9K	30.7	6.40	441.5	753.20	42.969	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1	10K	0.0	0.00	441.5	753.20	42.971	2	957	0.01610	0.00	0.00	0	134	0	5.27	0.00
1	11K	33.2	6.50	474.7	743.64	44.528	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1	12K	0.0	0.00	474.7	743.64	44.447	2	1511	0.01470	0.00	0.00	0	134	0	5.18	0.00
1	13L	28.8	20.62	28.8	20.62	1.703	0	0	0.00000	0.00	0.00	0	134	14	5.79	0.01
1	14L	0.0	0.00	28.8	20.62	1.702	2	659	0.02120	0.00	0.00	0	134	0	5.79	0.00
1	15L	24.8	15.13	53.6	33.23	3.130	0	0	0.00000	0.00	0.00	0	134	16	5.71	0.01
1	16L	0.0	0.00	53.6	33.23	3.130	2	724	0.02090	0.00	0.00	0	134	0	5.71	0.00
1	17B	39.1	5.17	78.8	10.33	3.304	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.09
1	18L	0.0	0.00	53.6	31.83	3.129	2	1152	0.01700	0.00	0.00	0	134	0	2.99	0.00
1	19L	21.3	4.97	74.9	32.05	4.194	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1	20L	0.0	0.00	74.9	32.05	4.190	2	1374	0.01640	0.00	0.00	0	134	0	5.44	0.00
1	21L	17.9	3.73	92.8	30.33	5.048	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1	22L	0.0	0.00	92.8	30.33	5.030	2	1523	0.01560	0.00	0.00	0	134	0	5.27	0.00

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* CONFLUENCE Q'S *
* 1 23K TK 1167 QK 698.76 QKL 708.15 QL 9.38 1 23L TL 1185 QL 27.09 QL-
1145305994511848600000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□K
125.67 Q□ 1.#R
* 1 23KL TKL 1167 QKL 708.15 QK 698.76 QL 9.38
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	23KL	92.8	27.09	567.5	708.15	49.411	2	709	0.01300	0.00	0.00	0	134	0	5.27	0.00
1	24K	30.9	4.97	598.4	703.33	50.771	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	25K	0.0	0.00	598.4	703.33	50.697	2	778	0.01320	0.00	0.00	0	134	0	4.92	0.00
1	26K	32.3	5.19	630.7	696.78	52.118	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1	27K	0.0	0.00	630.7	696.78	52.019	2	881	0.01070	0.00	0.00	0	134	0	4.92	0.00
1	28K	28.9	4.32	659.6	681.05	53.264	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1	29K	0.0	0.00	659.6	681.05	53.135	2	934	0.01050	0.00	0.00	0	134	0	4.83	0.00
1	30K	21.2	2.93	680.8	665.58	54.029	0	0	0.00000	0.00	0.00	0	134	30	4.74	0.01

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	31K	0.0	0.00	680.8	665.58	53.927	2	853	0.01320	0.00	0.00	0	134	0	4.74	0.00
1	32M	940.0	3968.73	940.0	3968.73	513.706	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.90
1	33M	0.0	0.00	940.0	3968.73	512.993	2	1000	0.02000	0.00	0.00	0	120	0	8.00	0.00
1	34M	31.7	9.13	971.7	3841.28	514.716	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1	35M	0.0	0.00	971.7	3841.28	514.606	2	1319	0.02170	0.00	0.00	0	134	0	5.79	0.00
1	36M	29.5	7.70	1001.2	3765.76	516.146	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1	37M	0.0	0.00	1001.2	3765.76	516.089	2	1114	0.01940	0.00	0.00	0	134	0	5.62	0.00
1	38M	27.9	6.51	1029.1	3644.81	517.484	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1	39M	0.0	0.00	1029.1	3644.81	517.446	2	1014	0.01810	0.00	0.00	0	134	0	5.44	0.00
1	40M	39.2	8.68	1068.3	3535.55	519.367	0	0	0.00000	0.00	0.00	0	134	30	5.36	0.01
1	41M	0.0	0.00	1068.3	3535.55	519.309	2	1409	0.01550	0.00	0.00	0	134	0	5.36	0.00
1	42N	447.4	932.01	447.4	932.01	52.448	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1	43N	0.0	0.00	447.4	932.01	52.493	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1	44N	39.5	32.84	486.9	947.60	54.851	0	0	0.00000	0.00	0.00	0	134	12	5.79	0.01
1	45N	0.0	0.00	486.9	947.60	54.851	2	684	0.05170	0.00	0.00	0	134	0	5.79	0.00
1	46N	38.9	27.06	525.8	968.49	57.111	0	0	0.00000	0.00	0.00	0	134	14	5.71	0.01
1	47N	0.0	0.00	525.8	968.49	57.103	2	702	0.02820	0.00	0.00	0	134	0	5.71	0.00
1	48N	37.9	15.69	563.7	979.86	59.170	0	0	0.00000	0.00	0.00	0	134	22	5.62	0.01
1	49N	0.0	0.00	563.7	979.86	59.150	2	938	0.02310	0.00	0.00	0	134	0	5.62	0.00
1	50N	32.3	7.54	596.0	976.86	60.765	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1	51N	0.0	0.00	596.0	976.86	60.656	2	1933	0.00920	0.00	0.00	0	134	0	5.44	0.00

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*                                           CONFLUENCE Q'S                                      *
* 1   52M  TM 1160 QM  3430.83 QMN  3937.06 QN    506.24      1   52N  TN 1166 QN   903.36 QN    -0.00 QpM  1650.36 Q□     1.#R
*                                1   52MN TMN 1161 QMN  3987.44 QM  3370.22 QN   617.23
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52MN	596.0	903.36	1664.3	3987.44	579.863	2	885	0.02080	0.00	0.00	0	134	0	5.44	0.00
1	53M	18.1	3.32	1682.4	3934.34	580.694	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1	54M	0.0	0.00	1682.4	3934.34	580.448	2	1259	0.00920	0.00	0.00	0	134	0	5.09	0.00
1	55O	35.7	8.33	35.7	8.33	1.785	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1	56O	0.0	0.00	35.7	8.33	1.781	2	2369	0.01220	0.00	0.00	0	134	0	5.44	0.00
1	57B	40.0	9.86	118.8	20.19	5.313	0	0	0.00000	0.00	0.00	0	134	29	5.44	0.01
1	58O	0.0	0.00	35.7	6.20	1.772	2	1288	0.01250	0.00	0.00	0	134	0	5.44	0.00

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*                                           CONFLUENCE Q'S                                      *
* 1   59M  TM 1164 QM  3823.04 QMO  3825.21 QO     2.17       1   590  TO 1193 QO     5.71 QO-
1924454074487529300000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000.00 QÞM   613.77 Q□     1.#R
*                                1   59MO TMO 1164 QMO  3825.21 QM  3823.04 QO     2.17
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 59MO	35.7	5.71	1718.1	3825.21	581.872	2	934	0.01150	0.00	0.00	0	134	0	5.44	0.00
1 60M	21.5	3.46	1739.6	3776.50	582.819	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1 61M	0.0	0.00	1739.6	3776.50	582.356	2	1075	0.01320	0.00	0.00	0	134	0	4.92	0.00
1 62M	0.0	0.00	1739.6	3690.89	582.354	2	5	0.01000	0.00	0.00	0	134	0	4.92	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1   63K  TK 1177 QK   653.65 QKM  2474.30 QM  1820.65       1   63M  TM 1167 QM  3690.88 QM     0.00 Q»K   158.49 Q□     1.#R
*                                        1   63KM TKM 1167 QKM  3849.37 QK   158.49 QM  3690.88
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 63KM	1739.6	3690.88	2420.4	3849.37	636.278	2	5	0.01000	0.00	0.00	0	134	0	4.92	0.00
1 64K	31.4	4.69	2451.8	3853.31	637.630	0	0	0.00000	0.00	0.00	0	134	30	4.83	0.01
1 65K	0.0	0.00	2451.8	3853.31	637.135	2	784	0.01050	0.00	0.00	0	134	0	4.83	0.00
1 66K	37.2	0.00	2489.0	3818.64	637.135	0	0	0.00000	0.00	0.00	0	124	30	4.74	0.01
1 67K	0.0	0.00	2489.0	3818.64	636.607	2	770	0.01080	0.00	0.00	0	124	0	4.74	0.00
1 68K	34.7	4.40	2523.7	3783.65	638.015	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1 69K	0.0	0.00	2523.7	3783.65	637.206	2	992	0.01000	0.00	0.00	0	124	0	4.57	0.00
1 70K	19.1	2.33	2542.8	3719.71	637.950	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 71K	0.0	0.00	2542.8	3719.71	636.959	2	975	0.00800	0.00	0.00	0	124	0	4.39	0.00
1 72K	10.9	1.30	2553.7	3667.41	637.375	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.01
1 73K	0.0	0.00	2553.7	3667.41	636.507	2	715	0.00700	0.00	0.00	0	124	0	4.30	0.00
1 74K	24.2	2.83	2577.9	3634.84	637.412	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 75K	0.0	0.00	2577.9	3634.84	636.267	2	1168	0.01280	0.00	0.00	0	124	0	4.21	0.00
1 76P	72.8	233.01	72.8	233.01	8.603	0	0	0.00000	0.00	0.00	0	120	6	8.00	0.01
1 77P	0.0	0.00	72.8	233.01	8.600	2	640	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 78P	26.5	28.14	99.3	253.99	10.131	0	0	0.00000	0.00	0.00	0	124	7	5.79	0.01
1 79P	0.0	0.00	99.3	253.99	10.124	2	1220	0.00870	0.00	0.00	0	124	0	5.79	0.00
1 80P	39.7	10.36	139.0	216.55	12.196	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1 81P	0.0	0.00	139.0	216.55	12.171	2	2419	0.01850	0.00	0.00	0	134	0	5.62	0.00
1 82Q	40.0	11.52	40.0	11.52	2.174	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1 83Q	0.0	0.00	40.0	11.52	2.173	2	1582	0.02720	0.00	0.00	0	134	0	5.79	0.00
1 84Q	40.0	11.52	80.0	20.15	4.348	0	0	0.00000	0.00	0.00	0	134	30	5.79	0.01
1 85Q	0.0	0.00	80.0	20.15	4.343	2	1847	0.02110	0.00	0.00	0	134	0	5.79	0.00

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**********************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                  *
* 1   86P  TP 1166 QP   167.81 QPQ   182.14 QQ    14.33       1   86Q  TQ 1175 QQ    18.59 QQ-
13916834280107392000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□P    92.70 Q□     1.#R
*                                        1   86PQ TPQ 1166 QPQ   182.14 QP   167.81 QQ    14.33
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 86PQ	80.0	18.59	219.0	182.14	16.490	2	949	0.02000	0.00	0.00	0	134	0	5.79	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 87P	40.0	12.28	259.0	184.54	18.610	0	0	0.00000	0.00	0.00	0	134	27	5.62	0.01
1 88P	0.0	0.00	259.0	184.54	18.570	2	856	0.01150	0.00	0.00	0	134	0	5.62	0.00
1 89P	40.0	7.83	299.0	181.73	20.446	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1 90P	0.0	0.00	299.0	181.73	20.392	2	1066	0.01300	0.00	0.00	0	134	0	5.18	0.00
1 91P	40.0	7.33	339.0	177.56	22.227	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1 92P	0.0	0.00	339.0	177.56	22.131	2	1323	0.01000	0.00	0.00	0	134	0	5.09	0.00
1 93P	38.5	6.19	377.5	166.60	23.825	0	0	0.00000	0.00	0.00	0	134	30	4.92	0.01
1 94P	0.0	0.00	377.5	166.60	23.723	2	1231	0.00980	0.00	0.00	0	134	0	4.92	0.00
1 95P	32.9	4.41	410.4	159.22	25.133	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 96P	0.0	0.00	410.4	159.22	24.868	2	853	0.00100	0.00	0.00	0	124	0	4.83	0.00
1 97P	32.3	4.17	442.7	136.69	26.202	0	0	0.00000	0.00	0.00	0	124	30	4.65	0.01
1 98P	0.0	0.00	442.7	136.69	26.094	2	903	0.00830	0.00	0.00	0	124	0	4.65	0.00
1 99P	36.0	4.78	478.7	135.34	27.622	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 100P	0.0	0.00	478.7	135.34	27.468	2	1173	0.00770	0.00	0.00	0	124	0	4.78	0.00
1 101P	22.9	2.79	501.6	131.66	28.360	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1 102P	0.0	0.00	501.6	131.66	28.268	2	832	0.01210	0.00	0.00	0	124	0	4.39	0.00
1 103P	12.6	1.47	514.2	130.64	28.739	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1 104P	0.0	0.00	514.2	130.64	28.624	2	949	0.01050	0.00	0.00	0	124	0	4.21	0.00

****
* CONFLUENCE Q'S *
* 1 105K TK 1175 QK 3581.17 QKP 3612.72 QP 31.55 1 105P TP 1220 QP 128.94 QP-
80257173220307373000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000.00 QÔK 637.16 Q□ 1.#R
* 1 105KP TKP 1175 QKP 3612.72 QK 3581.17 QP 31.55
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 105KP	514.2	128.94	3092.1	3612.72	664.886	2	5	0.01000	0.00	0.00	0	124	0	4.21	0.00
1 106K	32.1	3.68	3124.2	3615.11	666.063	0	0	0.00000	0.00	0.00	0	124	30	4.13	0.01
1 107K	0.0	0.00	3124.2	3615.11	664.983	2	913	0.01100	0.00	0.00	0	124	0	4.13	0.00
1 108K	37.7	4.23	3161.9	3594.53	666.335	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 109K	0.0	0.00	3161.9	3594.53	664.943	2	1081	0.01000	0.00	0.00	0	124	0	4.04	0.00
1 110K	39.4	4.22	3201.3	3550.06	666.293	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 111K	0.0	0.00	3201.3	3550.06	665.030	2	1044	0.01240	0.00	0.00	0	124	0	3.86	0.00
1 112K	39.8	4.08	3241.1	3521.44	666.334	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.01
1 113K	0.0	0.00	3241.1	3521.44	664.876	2	1121	0.01110	0.00	0.00	0	124	0	3.69	0.00
1 114K	40.0	3.90	3281.1	3487.91	666.122	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.01
1 115K	0.0	0.00	3281.1	3487.91	664.741	2	960	0.00950	0.00	0.00	0	124	0	3.51	0.00
1 116K	39.8	3.96	3320.9	3453.03	666.009	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.02
1 117K	0.0	0.00	3320.9	3453.03	664.703	2	919	0.00990	0.00	0.00	0	124	0	3.34	0.00
1 118K	39.8	5.04	3360.7	3429.13	666.316	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.07
1 119K	0.0	0.00	3360.7	3429.13	665.492	2	835	0.01980	0.00	0.00	0	134	0	3.16	0.00
1 120K	22.4	3.04	3383.1	3413.91	666.465	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.09
1 121K	0.0	0.00	3383.1	3413.91	664.835	2	1042	0.00770	0.00	0.00	0	134	0	3.07	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 122R	21.6	2.98	21.6	2.98	0.910	0	0	0.00000	0.00	0.00	0	134	30	4.74	0.01
1 123R	0.0	0.00	21.6	2.98	0.909	2	1940	0.01230	0.00	0.00	0	134	0	4.74	0.00
1 124R	32.5	4.19	54.1	5.92	2.250	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1 125R	0.0	0.00	54.1	5.92	2.248	2	1189	0.01320	0.00	0.00	0	134	0	4.65	0.00
1 126R	23.9	3.03	78.0	8.15	3.218	0	0	0.00000	0.00	0.00	0	134	30	4.57	0.01
1 127R	0.0	0.00	78.0	8.15	3.214	2	803	0.01280	0.00	0.00	0	134	0	4.57	0.00
1 128R	28.8	3.72	106.8	11.04	4.402	0	0	0.00000	0.00	0.00	0	134	30	4.65	0.01
1 129R	0.0	0.00	106.8	11.04	4.392	2	966	0.01040	0.00	0.00	0	134	0	4.65	0.00
1 130R	29.3	3.57	136.1	13.42	5.534	0	0	0.00000	0.00	0.00	0	134	30	4.39	0.01
1 131R	0.0	0.00	136.1	13.42	5.520	2	795	0.00960	0.00	0.00	0	134	0	4.39	0.00
1 132R	27.5	3.28	163.6	15.41	6.570	0	0	0.00000	0.00	0.00	0	134	30	4.30	0.01
1 133R	0.0	0.00	163.6	15.41	6.554	2	759	0.01050	0.00	0.00	0	134	0	4.30	0.00
1 134R	27.3	3.19	190.9	17.23	7.574	0	0	0.00000	0.00	0.00	0	134	30	4.21	0.01
1 135R	0.0	0.00	190.9	17.23	7.554	2	740	0.00980	0.00	0.00	0	134	0	4.21	0.00
1 136R	29.4	3.37	220.3	19.02	8.632	0	0	0.00000	0.00	0.00	0	134	30	4.13	0.01
1 137R	0.0	0.00	220.3	19.02	8.604	2	849	0.01000	0.00	0.00	0	134	0	4.13	0.00
1 138R	36.9	4.14	257.2	21.11	9.927	0	0	0.00000	0.00	0.00	0	134	30	4.04	0.01
1 139R	0.0	0.00	257.2	21.11	9.889	2	960	0.01020	0.00	0.00	0	134	0	4.04	0.00
1 140R	27.6	2.96	284.8	22.23	10.835	0	0	0.00000	0.00	0.00	0	134	30	3.86	0.01
1 141R	0.0	0.00	284.8	22.23	10.807	2	705	0.01250	0.00	0.00	0	134	0	3.86	0.00
1 142R	36.0	3.69	320.8	24.03	11.986	0	0	0.00000	0.00	0.00	0	134	30	3.69	0.01
1 143R	0.0	0.00	320.8	24.03	11.938	2	966	0.01040	0.00	0.00	0	134	0	3.69	0.00
1 144R	39.6	3.76	360.4	25.46	13.141	0	0	0.00000	0.00	0.00	0	134	30	3.42	0.01
1 145R	0.0	0.00	360.4	25.46	13.076	2	1078	0.00940	0.00	0.00	0	134	0	3.42	0.00
1 146R	27.4	2.40	387.8	25.80	13.845	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.01
1 147R	0.0	0.00	387.8	25.80	13.808	2	693	0.01440	0.00	0.00	0	134	0	3.16	0.00
1 148R	27.6	3.68	415.4	27.10	14.984	0	0	0.00000	0.00	0.00	0	134	30	3.16	0.08
1 149R	0.0	0.00	415.4	27.10	14.893	2	1266	0.00970	0.00	0.00	0	134	0	3.16	0.00
1 150R	20.7	2.94	436.1	27.51	15.833	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.10
1 151R	0.0	0.00	436.1	27.51	15.721	2	1379	0.00960	0.00	0.00	0	134	0	3.07	0.00

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*****************************************************************************************************************************
*                                                    CONFLUENCE Q'S                                                         *
* 1  152K  TK 1188 QK  3376.11 QKR  3402.28 QR    26.18       1  152R  TR 1205 QR    27.42 QR     0.00 QcK  1982.18 Q□     1.#R
*                                      1  152KR TKR 1188 QKR  3402.28 QK  3376.11 QR    26.18
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 152KR	436.1	27.42	3819.2	3402.28	678.736	2	1212	0.00830	0.00	0.00	0	134	0	3.07	0.00
1 153K	38.8	4.89	3858.0	3357.46	680.300	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.08
1 154K	0.0	0.00	3858.0	3357.46	677.255	2	2066	0.00970	0.00	0.00	0	134	0	2.99	0.00
1 155K	27.3	3.50	3885.3	3255.27	678.374	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.09
1 156K	0.0	0.00	3885.3	3255.27	675.685	2	1710	0.00880	0.00	0.00	0	134	0	2.90	0.00
1 157K	22.1	2.87	3907.4	3190.56	676.604	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 158K	0.0	0.00	3907.4	3190.56	673.898	2	1697	0.00870	0.00	0.00	0	134	0	2.81	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4   Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 159S	39.3	5.27	39.3	5.27	1.686	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.10
1 160S	0.0	0.00	39.3	5.27	1.683	2	2302	0.01100	0.00	0.00	0	134	0	2.90	0.00
1 161S	36.7	4.77	76.0	8.04	3.209	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 162S	0.0	0.00	76.0	8.04	3.191	2	2012	0.01210	0.00	0.00	0	134	0	2.81	0.00
1 163T	16.1	2.23	16.1	2.23	0.712	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1 164T	0.0	0.00	16.1	2.23	0.711	2	1839	0.00880	0.00	0.00	0	134	0	2.99	0.00
1 165T	28.5	3.94	44.6	5.03	1.972	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1 166T	0.0	0.00	44.6	5.03	1.970	2	887	0.01190	0.00	0.00	0	134	0	2.99	0.00
1 167T	38.0	4.94	82.6	9.41	3.550	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 168T	0.0	0.00	82.6	9.41	3.545	2	1078	0.00880	0.00	0.00	0	134	0	2.81	0.00
1 169T	39.8	5.17	122.4	13.35	5.200	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 170T	0.0	0.00	122.4	13.35	5.184	2	1337	0.01200	0.00	0.00	0	134	0	2.81	0.00
1 171T	29.2	3.80	151.6	15.51	6.398	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 172T	0.0	0.00	151.6	15.51	6.351	2	1813	0.00980	0.00	0.00	0	134	0	2.81	0.00
1 173KS	76.0	7.56	3983.4	3141.35	677.089	0	0	0.00000	0.00	0.00	0	134	0	2.81	0.00

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*******************************************************************************************
*                                        CONFLUENCE Q'S                                   *
* 1  174K  TK 1201 QK  3141.35 QKT  3155.05 QT    13.70     1  174T  TT 1190 QT    14.66 QT     0.00 Q–K  1106.49 Q□     1.#R
*                           1  174KT TKT 1201 QKT  3155.05 QK  3141.35 QT    13.70
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 174KT	151.6	14.66	4135.0	3155.05	681.720	2	1115	0.00920	0.00	0.00	0	134	0	2.81	0.00
1 175K	28.5	3.71	4163.5	3136.66	682.905	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 176K	0.0	0.00	4163.5	3136.66	679.781	2	1834	0.00810	0.00	0.00	0	134	0	2.81	0.00
1 177U	29.4	3.82	29.4	3.82	1.222	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.10
1 178U	29.1	3.89	58.5	7.71	2.467	0	0	0.00000	0.00	0.00	0	134	30	2.89	0.10
1 179U	0.0	0.00	58.5	7.71	2.448	2	3079	0.00820	0.00	0.00	0	134	0	2.89	0.00
1 180U	31.8	3.40	90.3	7.62	3.535	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.06
1 181U	0.0	0.00	90.3	7.62	3.498	2	2207	0.01120	0.00	0.00	0	134	0	2.81	0.00
1 182U	21.3	1.91	111.6	7.50	4.108	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.03
1 183U	0.0	0.00	111.6	7.50	4.039	2	2448	0.00810	0.00	0.00	0	134	0	2.81	0.00

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*******************************************************************************************
*                                        CONFLUENCE Q'S                                   *
* 1  184K  TK 1207 QK  3069.84 QKU  3076.82 QU     6.97     1  184U  TU 1225 QU     7.28
QU1581358118692084500000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000.00 QdK  1931.81 Q□     1.#R
*                           1  184KU TKU 1207 QKU  3076.82 QK  3069.84 QU     6.97
*******************************************************************************************
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NEXTLIGHT
AV SOLAR RANCH ONE
BASIN K PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 184KU	111.6	7.28	4275.1	3076.82	683.812	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN V PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinV.lac Run date: Fri Sep 25 12:25:20 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1V	23.8	2.82	23.8	2.82	0.902	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.08
1	2V	0.0	0.00	23.8	2.82	0.901	2	1412	0.01030	0.00	0.00	0	134	0	2.81	0.00
1	3V	39.4	3.53	63.2	5.52	2.029	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.03
1	4V	0.0	0.00	63.2	5.52	2.028	2	1046	0.01150	0.00	0.00	0	134	0	2.81	0.00
1	5V	39.9	4.26	103.1	8.84	3.392	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.06
1	6V	0.0	0.00	103.1	8.84	3.388	2	892	0.01000	0.00	0.00	0	134	0	2.81	0.00
1	7V	40.0	4.28	143.1	12.11	4.756	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.06
1	8V	0.0	0.00	143.1	12.11	4.745	2	964	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\BasinW.lac Run date: Tue Sep 29 08:57:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	1W	24.1	3.06	24.1	3.06	0.978	0	0	0.00000	0.00	0.00	0	124	30	4.57	0.01
1	2B	24.6	1.92	24.6	1.92	0.614	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1	2W	0.0	0.00	24.1	3.06	0.977	2	1848	0.01050	0.00	0.00	0	134	0	2.81	0.00
1	3W	22.3	2.72	46.4	4.71	1.846	0	0	0.00000	0.00	0.00	0	124	30	4.39	0.01
1	4B	15.1	2.09	39.7	4.01	1.282	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1	4W	0.0	0.00	46.4	4.71	1.844	2	1007	0.01070	0.00	0.00	0	134	0	2.99	0.00
1	5W	26.9	3.14	73.3	6.94	2.849	0	0	0.00000	0.00	0.00	0	124	30	4.21	0.01
1	6W	0.0	0.00	73.3	6.94	2.841	2	1111	0.00990	0.00	0.00	0	124	0	4.21	0.00
1	7W	24.7	2.77	98.0	8.75	3.727	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1	8W	0.0	0.00	98.0	8.75	3.709	2	1118	0.00710	0.00	0.00	0	124	0	4.04	0.00
1	9W	35.1	3.76	133.1	10.68	4.912	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1	10W	0.0	0.00	133.1	10.68	4.886	2	1301	0.01000	0.00	0.00	0	124	0	3.86	0.00
1	11W	24.8	2.79	157.9	11.78	5.779	0	0	0.00000	0.00	0.00	0	124	30	3.78	0.02
1	12W	0.0	0.00	157.9	11.78	5.757	2	779	0.00750	0.00	0.00	0	124	0	3.78	0.00
1	13W	36.2	4.81	194.1	14.66	7.294	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.05
1	14W	0.0	0.00	194.1	14.66	7.271	2	915	0.01440	0.00	0.00	0	124	0	3.69	0.00
1	15W	33.0	4.64	227.1	17.92	8.757	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.07
1	16W	0.0	0.00	227.1	17.92	8.735	2	796	0.01390	0.00	0.00	0	124	0	3.51	0.00
1	17W	39.5	6.10	266.6	22.60	10.687	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.10
1	18W	0.0	0.00	266.6	22.60	10.655	2	930	0.01200	0.00	0.00	0	124	0	3.34	0.00
1	19W	32.8	4.80	299.4	26.08	12.188	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	20W	0.0	0.00	299.4	26.08	12.154	2	774	0.00940	0.00	0.00	0	124	0	3.16	0.00
1	21W	35.4	5.18	334.8	29.56	13.809	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	22W	0.0	0.00	334.8	29.56	13.748	2	1066	0.00820	0.00	0.00	0	124	0	3.16	0.00
1	23W	19.1	2.71	353.9	30.39	14.616	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.10
1	24W	0.0	0.00	353.9	30.39	14.548	2	860	0.00630	0.00	0.00	0	134	0	3.07	0.00
1	25W	11.4	1.62	365.3	30.42	15.066	0	0	0.00000	0.00	0.00	0	134	30	3.07	0.10
1	26W	0.0	0.00	365.3	30.42	15.009	2	684	0.00730	0.00	0.00	0	134	0	3.07	0.00
1	27W	22.7	3.14	388.0	31.13	16.013	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.10
1	28W	0.0	0.00	388.0	31.13	15.855	2	1949	0.01030	0.00	0.00	0	134	0	2.99	0.00
1	29X	7.3	1.07	7.3	1.07	0.341	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	30X	0.0	0.00	7.3	1.07	0.311	2	1088	0.00760	0.00	0.00	0	124	0	3.16	0.00
1	31X	23.1	3.28	30.4	3.88	1.360	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.10
1	32X	0.0	0.00	30.4	3.88	1.360	2	882	0.01350	0.00	0.00	0	124	0	3.07	0.00
1	33X	13.0	1.83	43.4	5.41	1.935	0	0	0.00000	0.00	0.00	0	124	29	2.99	0.10
1	34X	0.0	0.00	43.4	5.41	1.934	2	429	0.01290	0.00	0.00	0	124	0	2.99	0.00
1	35X	18.5	2.56	61.9	7.65	2.753	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.10
1	36X	0.0	0.00	61.9	7.65	2.752	2	1115	0.01280	0.00	0.00	0	124	0	2.99	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   37W  TW 1206 QW    30.47 QWX    34.58 QX     4.11       1   37X  TX 1180 QX     7.45
QX16374021777172390000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000.00 Q□W    23.54 Q'     0.00
*                                        1   37WX TWX 1201 QWX    34.83 QW    30.06 QX     4.77
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	37WX	61.9	7.45	449.9	34.83	18.548	2	642	0.00980	0.00	0.00	0	124	0	2.99	0.00
1	38W	19.2	2.12	469.1	35.26	19.225	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.06
1	39W	0.0	0.00	469.1	35.26	19.078	2	1430	0.00960	0.00	0.00	0	124	0	2.90	0.00
1	40Y	6.4	0.94	6.4	0.94	0.299	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	41Y	0.0	0.00	6.4	0.94	0.235	2	970	0.00890	0.00	0.00	0	124	0	3.16	0.00
1	42Y	11.2	1.64	17.6	2.29	0.759	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	43Y	0.0	0.00	17.6	2.29	0.758	2	831	0.01140	0.00	0.00	0	124	0	3.16	0.00
1	44Y	15.6	2.22	33.2	4.13	1.466	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.10
1	45Y	0.0	0.00	33.2	4.13	1.466	2	883	0.01070	0.00	0.00	0	124	0	3.07	0.00
1	46Y	9.5	1.31	42.7	5.05	1.886	0	0	0.00000	0.00	0.00	0	124	30	2.99	0.10
1	47Y	0.0	0.00	42.7	5.05	1.885	2	390	0.01680	0.00	0.00	0	124	0	2.99	0.00
1	48Y	13.1	1.76	55.8	6.44	2.447	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.10
1	49Y	0.0	0.00	55.8	6.44	2.447	2	658	0.01670	0.00	0.00	0	124	0	2.90	0.00
1	50Y	24.4	2.55	80.2	8.40	3.262	0	0	0.00000	0.00	0.00	0	124	30	2.90	0.05
1	51Y	0.0	0.00	80.2	8.40	3.254	2	1416	0.01050	0.00	0.00	0	124	0	2.90	0.00

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*****************************************************************************************************************
*                                                CONFLUENCE Q'S                                                 *
* 1   52W  TW 1214 QW    35.04 QWY    40.15 QY     5.12       1   52Y  TY 1186 QY     8.09 QY     0.00 QLW    29.00 Q'     0.00
*                                        1   52WY TWY 1208 QWY    40.45 QW    34.67 QY     5.79
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LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1	52WY	80.2	8.09	549.3	40.45	22.114	2	1623	0.00800	0.00	0.00	0	124	0	2.90	0.00
1	53Z	12.8	2.08	12.8	2.08	0.665	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.10
1	54Z	0.0	0.00	12.8	2.08	0.664	2	1273	0.01320	0.00	0.00	0	124	0	3.51	0.00
1	55Z	24.9	3.94	37.7	5.44	1.924	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.10
1	56Z	0.0	0.00	37.7	5.44	1.923	2	1086	0.01170	0.00	0.00	0	124	0	3.42	0.00
1	57Z	25.8	3.88	63.5	8.52	3.164	0	0	0.00000	0.00	0.00	0	124	30	3.25	0.10
1	58Z	0.0	0.00	63.5	8.52	3.162	2	863	0.01350	0.00	0.00	0	124	0	3.25	0.00
1	59Z	30.1	4.40	93.6	12.02	4.570	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1	60Z	0.0	0.00	93.6	12.02	4.563	2	922	0.01230	0.00	0.00	0	124	0	3.16	0.00
1	61Z	28.0	3.98	121.6	14.92	5.835	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.10
1	62Z	0.0	0.00	121.6	14.92	5.822	2	907	0.01020	0.00	0.00	0	124	0	3.07	0.00
1	63Z	32.7	4.64	154.3	17.97	7.307	0	0	0.00000	0.00	0.00	0	124	30	3.07	0.10
1	64Z	0.0	0.00	154.3	17.97	7.285	2	1048	0.01130	0.00	0.00	0	124	0	3.07	0.00
1	65Z	25.7	2.77	180.0	19.26	8.169	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.05
1	66Z	0.0	0.00	180.0	19.26	8.142	2	1003	0.01240	0.00	0.00	0	134	0	2.99	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN W PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 67Z	9.1	0.76	189.1	19.20	8.383	0	0	0.00000	0.00	0.00	0	134	30	2.99	0.01
1 68Z	0.0	0.00	189.1	19.20	8.371	2	399	0.01470	0.00	0.00	0	134	0	2.99	0.00
1 69Z	24.4	1.96	213.5	19.78	8.999	0	0	0.00000	0.00	0.00	0	134	30	2.90	0.01
1 70Z	0.0	0.00	213.5	19.78	8.961	2	1072	0.01280	0.00	0.00	0	134	0	2.90	0.00
1 71Z	27.0	2.11	240.5	20.20	9.635	0	0	0.00000	0.00	0.00	0	134	30	2.81	0.01
1 72Z	0.0	0.00	240.5	20.20	9.567	2	1351	0.00920	0.00	0.00	0	134	0	2.81	0.00

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*****************************************************************************************************************************
*                                                                CONFLUENCE Q'S                                                *
* 1   73W  TW 1219 QW    40.19 QWZ    58.48 QZ    18.28       1   73Z  TZ 1204 QZ    19.95 QZ    -0.00 Q9W    38.46 Q'     0.00
*                                     1   73WZ TWZ 1211 QWZ    59.26 QW    39.71 QZ    19.55
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LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 73WZ	240.5	19.95	789.8	59.26	31.680	2	5	0.01000	0.00	0.00	0	134	0	2.81	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100A PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\Basin100A.lac Run date: Fri Sep 25 12:44:12 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 101A	8.2	1.33	8.2	1.33	0.426	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.10
1 102A	0.0	0.00	8.2	1.33	0.424	2	1080	0.01170	0.00	0.00	0	124	0	3.51	0.00
1 103A	17.4	2.69	25.6	3.64	1.284	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.10
1 104A	0.0	0.00	25.6	3.64	1.283	2	846	0.01260	0.00	0.00	0	124	0	3.34	0.00
1 105A	18.4	2.77	44.0	5.98	2.168	0	0	0.00000	0.00	0.00	0	124	30	3.25	0.10
1 106A	0.0	0.00	44.0	5.98	2.167	2	782	0.01420	0.00	0.00	0	124	0	3.25	0.00
1 107A	24.3	3.55	68.3	8.93	3.304	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1 108A	0.0	0.00	68.3	8.93	3.302	2	822	0.01180	0.00	0.00	0	124	0	3.16	0.00
1 109A	21.0	3.07	89.3	11.26	4.284	0	0	0.00000	0.00	0.00	0	124	30	3.16	0.10
1 110A	0.0	0.00	89.3	11.26	4.280	2	717	0.01020	0.00	0.00	0	124	0	3.16	0.00

Normal End of MODRAT

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 25 YEAR CLEAR

File name: V:\1NEX010100\Engr\DESIGN\HYDR\WMS\Proposed Conditions\Q25\Basin100B.lac Run date: Tue Sep 29 16:15:49 2009

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 13B	30.0	4.10	30.0	4.10	1.310	0	0	0.00000	0.00	0.00	0	124	30	4.92	0.01
1 14B	22.1	3.79	52.1	7.88	2.302	0	0	0.00000	0.00	0.00	0	134	30	5.00	0.01
1 20B	38.7	5.47	90.8	13.35	4.051	0	0	0.00000	0.00	0.00	0	124	30	5.09	0.01
1 21B	11.2	2.05	102.0	15.40	4.565	0	0	0.00000	0.00	0.00	0	134	30	5.09	0.01
1 28B	24.5	5.72	126.5	21.12	5.790	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 29B	7.6	1.15	134.1	22.27	6.157	0	0	0.00000	0.00	0.00	0	124	30	5.44	0.01
1 35B	15.5	2.75	149.6	25.01	6.946	0	0	0.00000	0.00	0.00	0	124	30	5.71	0.01
1 36B	29.0	5.38	178.6	30.39	8.447	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 100B	67.1	239.25	245.7	266.67	16.388	0	0	0.00000	0.00	0.00	0	120	5	8.00	0.01
1 101B	0.0	0.00	245.7	266.67	16.390	2	240	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 102B	26.0	5.32	271.7	267.03	17.785	0	0	0.00000	0.00	0.00	0	124	30	5.97	0.01
1 103B	0.0	0.00	271.7	267.03	17.784	2	1058	0.04570	0.00	0.00	0	124	0	5.97	0.00
1 104B	24.8	4.60	296.5	259.60	19.068	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 105B	0.0	0.00	296.5	259.60	19.056	2	1470	0.02950	0.00	0.00	0	124	0	5.79	0.00
1 106B	18.1	3.04	314.6	233.17	19.962	0	0	0.00000	0.00	0.00	0	124	30	5.62	0.01
1 107B	0.0	0.00	314.6	233.17	19.952	2	959	0.01820	0.00	0.00	0	124	0	5.62	0.00
1 108C	634.1	1320.94	634.1	1320.94	74.335	0	0	0.00000	0.00	0.00	0	120	12	8.00	0.01
1 109C	0.0	0.00	634.1	1320.94	74.404	2	2000	0.05000	0.00	0.00	0	120	0	8.00	0.00
1 110C	39.7	7.74	673.8	1312.30	76.496	0	0	0.00000	0.00	0.00	0	124	30	5.88	0.01
1 111C	0.0	0.00	673.8	1312.30	76.489	2	1568	0.03970	0.00	0.00	0	124	0	5.88	0.00
1 112D	37.7	7.35	37.7	7.35	1.987	0	0	0.00000	0.00	0.00	0	124	30	5.88	0.01
1 113D	0.0	0.00	37.7	7.35	1.986	2	2150	0.02780	0.00	0.00	0	124	0	5.88	0.00

```
*****************************************************************************************************************
*                                        CONFLUENCE Q'S                                                         *
* 1  114C  TC 1159 QC  1298.43 QCD  1302.22 QD     3.79      1  114D  TD 1172 QD     6.40
QD1396973468541906400000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000.00 Q□C   262.57 Q□     0.00
*                                    1  114CD TCD 1159 QCD  1302.22 QC  1298.43 QD     3.79
*****************************************************************************************************************
```

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 114CD	37.7	6.40	711.5	1302.22	78.499	2	1532	0.02480	0.00	0.00	0	124	0	5.88	0.00
1 115C	12.0	2.02	723.5	1284.75	79.100	0	0	0.00000	0.00	0.00	0	124	30	5.62	0.01
1 116C	0.0	0.00	723.5	1284.75	79.050	2	949	0.01960	0.00	0.00	0	124	0	5.62	0.00

```
*****************************************************************************************************************
*                                        CONFLUENCE Q'S                                                         *
* 1  117B  TB 1162 QB   215.38 QBC  1480.63 QC  1265.24      1  117C  TC 1163 QC  1273.84 QC     0.00 QªB   206.32 Q□     0.00
*                                    1  117BC TBC 1162 QBC  1480.63 QB   215.38 QC  1265.24
*****************************************************************************************************************
```

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 117BC	723.5	1273.84	1038.1	1480.63	98.927	2	1210	0.01230	0.00	0.00	0	124	0	5.62	0.00
1 118B	34.1	4.99	1072.2	1456.84	100.523	0	0	0.00000	0.00	0.00	0	124	30	5.27	0.01
1 119B	0.0	0.00	1072.2	1456.84	100.405	2	944	0.01350	0.00	0.00	0	124	0	5.27	0.00
1 120E	31.1	5.77	31.1	5.77	1.610	0	0	0.00000	0.00	0.00	0	124	30	5.79	0.01
1 121E	0.0	0.00	31.1	5.77	1.610	2	2049	0.03100	0.00	0.00	0	124	0	5.79	0.00
1 122E	18.9	3.35	50.0	7.78	2.572	0	0	0.00000	0.00	0.00	0	124	30	5.71	0.01
1 123E	0.0	0.00	50.0	7.78	2.571	2	866	0.03040	0.00	0.00	0	124	0	5.71	0.00
1 124E	37.4	9.24	87.4	15.00	4.482	0	0	0.00000	0.00	0.00	0	134	30	5.53	0.01
1 125E	0.0	0.00	87.4	15.00	4.474	2	1753	0.01750	0.00	0.00	0	134	0	5.53	0.00
1 126E	21.3	4.72	108.7	16.84	5.518	0	0	0.00000	0.00	0.00	0	134	30	5.36	0.01
1 127E	0.0	0.00	108.7	16.84	5.508	2	919	0.01770	0.00	0.00	0	134	0	5.36	0.00
1 128E	16.6	6.48	125.3	17.53	6.348	0	0	0.00000	0.00	0.00	0	134	20	5.27	0.01
1 129E	0.0	0.00	125.3	17.53	6.333	2	904	0.01440	0.00	0.00	0	134	0	5.27	0.00

****
* CONFLUENCE Q'S *
* 1 130B TB 1167 QB 1438.15 QBE 1454.35 QE 16.20 1 130E TE 1182 QE 17.46 QE 0.00 Q×B 414.40 Q□ 0.00
* 1 130BE TBE 1167 QBE 1454.35 QB 1438.15 QE 16.20
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 130BE	125.3	17.46	1197.5	1454.35	106.577	2	1100	0.01140	0.00	0.00	0	134	0	5.27	0.00
1 131F	13.6	3.74	13.6	3.74	0.725	0	0	0.00000	0.00	0.00	0	134	30	5.71	0.01
1 132F	0.0	0.00	13.6	3.74	0.725	2	906	0.03180	0.00	0.00	0	134	0	5.71	0.00
1 133F	26.6	6.94	40.2	10.00	2.113	0	0	0.00000	0.00	0.00	0	134	30	5.62	0.01
1 134F	0.0	0.00	40.2	10.00	2.113	2	1224	0.02140	0.00	0.00	0	134	0	5.62	0.00
1 135F	37.2	8.68	77.4	16.22	3.973	0	0	0.00000	0.00	0.00	0	134	30	5.44	0.01
1 136F	0.0	0.00	77.4	16.22	3.968	2	1787	0.01630	0.00	0.00	0	134	0	5.44	0.00
1 137F	24.5	5.11	101.9	17.63	5.143	0	0	0.00000	0.00	0.00	0	134	30	5.27	0.01
1 138F	0.0	0.00	101.9	17.63	5.135	2	979	0.01940	0.00	0.00	0	134	0	5.27	0.00
1 139F	14.3	2.80	116.2	18.62	5.806	0	0	0.00000	0.00	0.00	0	134	30	5.18	0.01
1 140F	0.0	0.00	116.2	18.62	5.794	2	790	0.01440	0.00	0.00	0	134	0	5.18	0.00

****
* CONFLUENCE Q'S *
* 1 141B TB 1169 QB 1429.11 QBF 1442.68 QF 13.57 1 141F TF 1184 QF 18.31 QF-
808477870847897790000000000000000000000000000000000000000000000000000000000000000000000000.00 Q-B 478.26 Q□ 0.00
* 1 141BF TBF 1169 QBF 1442.68 QB 1429.11 QF 13.57
****

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 141BF	116.2	18.31	1313.7	1442.68	112.114	2	1041	0.00840	0.00	0.00	0	134	0	5.18	0.00
1 142B	27.0	3.62	1340.7	1413.65	113.272	0	0	0.00000	0.00	0.00	0	124	30	4.83	0.01
1 143B	0.0	0.00	1340.7	1413.65	113.049	2	872	0.01000	0.00	0.00	0	124	0	4.83	0.00
1 144B	24.7	3.19	1365.4	1399.07	114.069	0	0	0.00000	0.00	0.00	0	124	30	4.65	0.01
1 145B	0.0	0.00	1365.4	1399.07	113.758	2	1127	0.01000	0.00	0.00	0	124	0	4.65	0.00

NEXTLIGHT
AV SOLAR RANCH ONE
BASIN 100B PROPOSED CONDITIONS – 25 YEAR CLEAR

Los Angeles County Flood Control District
Modified Rational Method Hydrology

Storm Day 4 Storm Frequency 25

LOCATION	SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	TOTAL VOLUME	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN	PCT IMPV
1 146B	26.0	3.45	1391.4	1372.48	114.861	0	0	0.00000	0.00	0.00	0	124	30	4.78	0.01
1 147B	0.0	0.00	1391.4	1372.48	114.517	2	1083	0.00870	0.00	0.00	0	124	0	4.78	0.00
1 148B	22.6	2.70	1414.0	1345.62	115.380	0	0	0.00000	0.00	0.00	0	124	30	4.30	0.01
1 149B	0.0	0.00	1414.0	1345.62	115.057	2	872	0.00640	0.00	0.00	0	124	0	4.30	0.00
1 150B	28.5	3.20	1442.5	1319.30	116.079	0	0	0.00000	0.00	0.00	0	124	30	4.04	0.01
1 151B	0.0	0.00	1442.5	1319.30	115.624	2	1358	0.01000	0.00	0.00	0	124	0	4.04	0.00
1 152B	23.4	2.51	1465.9	1282.60	116.426	0	0	0.00000	0.00	0.00	0	124	30	3.86	0.01
1 153B	0.0	0.00	1465.9	1282.60	116.001	2	1217	0.00940	0.00	0.00	0	124	0	3.86	0.00
1 154B	20.9	2.30	1486.8	1251.73	116.736	0	0	0.00000	0.00	0.00	0	124	30	3.69	0.02
1 155B	0.0	0.00	1486.8	1251.73	116.483	2	807	0.01170	0.00	0.00	0	124	0	3.69	0.00
1 156B	26.1	3.38	1512.9	1240.56	117.565	0	0	0.00000	0.00	0.00	0	124	30	3.60	0.05
1 157B	0.0	0.00	1512.9	1240.56	117.283	2	966	0.01090	0.00	0.00	0	124	0	3.60	0.00
1 158B	26.4	3.33	1539.3	1228.45	118.349	0	0	0.00000	0.00	0.00	0	124	30	3.51	0.05
1 159B	0.0	0.00	1539.3	1228.45	118.049	2	973	0.01030	0.00	0.00	0	124	0	3.51	0.00
1 160B	29.7	3.65	1569.0	1214.22	119.218	0	0	0.00000	0.00	0.00	0	124	30	3.42	0.05
1 161B	0.0	0.00	1569.0	1214.22	118.828	2	1044	0.00880	0.00	0.00	0	124	0	3.42	0.00
1 162B	27.9	3.74	1596.9	1190.66	120.023	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.07
1 163B	0.0	0.00	1596.9	1190.66	119.628	2	1101	0.01000	0.00	0.00	0	124	0	3.34	0.00
1 164B	25.2	3.89	1622.1	1167.50	120.874	0	0	0.00000	0.00	0.00	0	124	30	3.34	0.10
1 165B	0.0	0.00	1622.1	1167.50	120.496	2	1034	0.00970	0.00	0.00	0	124	0	3.34	0.00

Normal End of MODRAT

APPENDIX H:

HEC-RAS PROFILES AND CROSS SECTIONS

```
                    HEC-RAS Version 4.0.0 March 2008
                      U.S. Army Corps of Engineers
                     Hydrologic Engineering Center
                           609 Second Street
                           Davis, California


          X     X  XXXXXX    XXXX        XXXX       XX      XXXX
          X     X  X        X    X       X   X     X  X    X
          X     X  X        X            X   X    X    X   X
          XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
          X     X  X        X            X  X     X    X        X
          X     X  X        X    X       X   X    X    X        X
          X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Drainage A
Project File : Primary.prj
Run Date and Time: 9/24/2009 9:22:53 AM

Project in English units

Project Description:
Drainage Channel "A"

PLAN DATA

Plan Title: Plan 04
Plan File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Primary\Primary.p04

Geometry Title: Drainage A
Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Primary\Primary.g01

Flow Title : Drainage A
Flow File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Primary\Primary.f01

Plan Summary Information:

Number of:					
Cross Sections	=	26	Multiple Openings	=	0
Culverts	=	0	Inline Structures	=	0
Bridges	=	0	Lateral Structures	=	0

Computational Information

Water surface calculation tolerance	=	0.01
Critical depth calculation tolerance	=	0.01
Maximum number of iterations	=	20
Maximum difference tolerance	=	0.3
Flow tolerance factor	=	0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: Drainage A
Flow File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Primary\Primary.f01

Flow Data (cfs)

River	Reach	RS	PF 1
Primary	Primary	22000	4796.14

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Primary	Primary	PF 1		Critical

GEOMETRY DATA

Geometry Title: Drainage A
Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Primary\Primary.g01

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 22000

INPUT
Description:
Station Elevation Data num= 189

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2714.48	13.54	2714.45	48.78	2714.42	62.23	2714.39	76.65	2714.37
91.59	2714.28	106.04	2714.21	108.46	2714.19	117.05	2714.13	130.57	2714.02
143.13	2713.92	155.4	2713.82	208.52	2713.54	256.1	2713.42	262.37	2713.43
263.72	2713.42	268.23	2713.43	312.45	2713.2	352.35	2713.17	380.32	2713.23
407.18	2713.24	416.83	2713.25	439.94	2713.15	466.19	2712.98	470.61	2712.97
488.44	2712.79	510.02	2712.55	517.89	2712.44	528.33	2712.34	536.3	2712.29
538.16	2712.27	539.19	2712.26	548.8	2712.18	564.08	2712.05	577.69	2711.94
584.1	2711.9	589.67	2711.87	591.21	2711.86	598.93	2711.82	604.73	2711.78
626.14	2711.71	646.31	2711.68	654	2711.66	661.27	2711.65	684.84	2711.64
708.85	2711.59	710.48	2711.58	713.29	2711.57	723.58	2711.55	730.9	2711.52
764.21	2711.42	800.06	2711.26	812.86	2711.17	820.98	2711.11	829.33	2711.06
830.06	2711.05	840.84	2710.99	843.58	2710.97	853.4	2710.94	854.72	2710.91
943.04	2710.33	975.39	2710.06	979.02	2710.05	981.88	2710.04	991.11	2710.02
992.54	2710.01	998.02	2710	1001.95	2709.99	1004.74	2709.98	1009.48	2709.97
1033.07	2709.77	1089.9	2709.32	1092.09	2709.31	1106.05	2709.24	1106.62	2709.23
1129.47	2709.1	1166.9	2708.75	1173.49	2708.67	1175.01	2708.66	1178.6	2708.62
1186.19	2708.54	1205.06	2708.37	1206.4	2708.35	1214.35	2708.26	1231.64	2708.1
1247.13	2707.95	1254.54	2707.87	1259.78	2707.81	1262.31	2707.79	1265.31	2707.76
1271.37	2707.68	1277.14	2707.62	1278.33	2707.61	1322.9	2707.18	1355.27	2706.9
1360.28	2706.89	1365.41	2706.81	1372.24	2706.77	1378.78	2706.73	1379.81	2706.72
1385.92	2706.68	1386.97	2706.67	1388.4	2706.66	1390.36	2706.65	1402.55	2706.58
1407.96	2706.54	1413.01	2706.49	1417.01	2706.48	1421.9	2706.43	1435.37	2706.33
1447.15	2706.25	1449.22	2706.24	1451.53	2706.23	1463.07	2706.21	1466.81	2706.19
1470.4	2706.18	1471.06	2706.17	1496.03	2706.12	1519.5	2706.13	1531.19	2706.14
1533.16	2706.15	1544.66	2706.21	1554.59	2706.26	1621	2706.64	1681.54	2706.59

```
 1710.04 2706.55 1798.72 2706.64 1854.35 2706.54 1867.59 2706.51 1897.15 2706.52
 1928.34 2706.59 1932.79 2706.61 1957.12 2706.55 1981.62 2706.52 2021.77 2706.51
 2043.68 2706.53 2066.67 2706.59 2068.44  2706.6 2085.87 2706.63 2090.92 2706.64
 2114.84  2706.7 2168.28 2706.71 2222.95 2706.62  2237.8  2706.6 2285.67 2706.75
 2331.37 2707.09 2343.25 2707.12 2348.12 2707.16 2369.04 2707.23 2372.39 2707.25
 2392.28 2707.32 2400.97 2707.36  2404.1 2707.39 2414.77 2707.52 2424.44 2707.64
 2427.73 2707.67 2440.98 2707.82 2455.16 2707.99 2487.99 2708.27 2513.45 2708.44
 2522.95 2708.47    2528  2708.5 2538.71 2708.57 2555.41 2708.68 2562.89 2708.73
 2570.46 2708.69 2577.15 2708.71 2646.51 2708.94 2726.95  2709.3 2801.01 2709.97
 2807.28 2709.98 2810.58 2709.99 2818.14    2710  2852.4 2710.53 2913.15 2711.33
 2956.53 2711.81 2958.39 2711.82  2980.3 2712.01 2999.92 2712.22 3008.62 2712.21
 3027.42 2712.22 3046.76 2712.28 3062.77 2712.34 3085.29 2712.55  3121.3 2712.79
 3151.55 2712.94 3168.61 2712.97 3189.36 2713.04    3200 2713.05

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1206.4     .05    2528      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1206.4    2528           518.55     500  568.87             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2708.22    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.13    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2708.09    Reach Len. (ft)           518.55     500.00     568.87
  Crit W.S. (ft)                      Flow Area (sq ft)                   1661.01
  E.G. Slope (ft/ft)      0.006359    Area (sq ft)                        1661.01
  Q Total (cfs)            4796.14    Flow (cfs)                          4796.14
  Top Width (ft)           1234.98    Top Width (ft)                      1234.98
  Vel Total (ft/s)            2.89    Avg. Vel. (ft/s)                       2.89
  Max Chl Dpth (ft)           1.97    Hydr. Depth (ft)                       1.34
  Conv. Total (cfs)        60145.5    Conv. (cfs)                         60145.5
  Length Wtd. (ft)          500.08    Wetted Per. (ft)                    1234.99
  Min Ch El (ft)           2706.12    Shear (lb/sq ft)                       0.53
  Alpha                       1.00    Stream Power (lb/ft s)                 1.54
  Frctn Loss (ft)             4.52    Cum Volume (acre-ft)        3.02     385.67      58.67
  C & E Loss (ft)             0.01    Cum SA (acres)              9.59     292.96      66.82


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 21500

INPUT
Description:
Station Elevation Data    num=     179
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2706.48   14.59  2706.5   43.66 2706.52   72.98 2706.47   77.24 2706.49
  105.55 2706.34  110.73 2706.35  120.82 2706.34   126.6 2706.36  131.28 2706.33
  137.59 2706.38  143.35 2706.44   210.6 2706.63  281.38 2706.25  282.58 2706.24
  286.83 2706.21  293.14 2706.16  309.06  2706.1  334.88 2706.01  347.78 2705.94
  356.28 2705.92  369.56 2705.89  372.07 2705.88  374.46 2705.87  378.23 2705.85
   383.9 2705.88  388.96 2705.85  393.78 2705.84  395.96 2705.83   432.4 2705.96
  465.96 2705.92  477.97  2705.9  490.11 2705.89  502.88  2705.9  504.45 2705.89
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     516  2705.9  527.76 2705.93  530.29  2705.9   541.5 2705.94  563.42 2705.97
  585.08 2705.99  597.14 2705.98  608.69 2705.97  620.29 2705.96  632.54 2705.94
  657.32 2705.86  683.16 2705.77  698.55 2705.69  701.02 2705.67  704.18 2705.64
   707.1 2705.61  709.07  2705.6  723.59 2705.54  725.23 2705.53  737.51  2705.5
  745.58 2705.45  752.35 2705.42  766.15 2705.39  779.36 2705.36  781.31 2705.35
  796.52 2705.32  811.16 2705.29  824.53 2705.27   871.4 2705.04  880.73 2705.03
  892.56 2705.02  909.13    2705  920.92 2704.89   921.2  2704.9  923.84 2704.89
  926.07 2704.88  934.49 2704.81  942.24 2704.75  948.64 2704.69  965.81 2704.53
  967.58 2704.52  969.43 2704.51  985.62 2704.37 1000.87 2704.25 1010.53 2704.17
 1019.86  2704.1 1027.34 2704.03 1034.63    2704 1088.96 2703.71 1136.87 2703.52
 1142.09 2703.51 1152.04  2703.5 1153.28 2703.49 1169.37 2703.43 1185.12 2703.35
 1187.76 2703.34 1189.86 2703.33 1195.49 2703.29 1204.81 2703.25  1215.5 2703.19
 1218.08 2703.18 1228.41 2703.13 1257.74 2703.04  1284.7 2702.99 1300.28 2702.97
 1328.76 2702.78  1364.7 2702.44 1369.37 2702.43  1377.3 2702.33 1386.39 2702.23
 1393.88  2702.2  1398.1 2702.16 1402.45 2702.11  1403.2  2702.1 1408.67 2702.07
 1409.77 2702.06 1412.77 2702.04 1419.67 2701.99 1420.17 2701.98 1421.39 2701.97
 1426.74 2701.92 1431.42 2701.86 1436.54  2701.8 1479.14 2701.53 1511.93 2701.43
 1519.26 2701.44 1522.08 2701.45 1524.17 2701.46 1554.29 2701.54 1587.17 2701.71
 1590.35 2701.73 1593.62 2701.76  1595.6 2701.77 1696.51 2702.06 1792.85 2701.91
 1802.03 2701.82 1804.04 2701.83 1811.83 2701.82 1813.48 2701.81 1861.36 2701.79
 1913.37 2701.97 1915.85 2701.99 1918.62 2702.01 1965.09  2702.3 2004.39 2702.47
 2021.01 2702.53 2035.38 2702.61 2061.38 2702.67 2086.53 2702.69 2099.18 2702.67
 2104.73  2702.7 2118.44 2702.77 2124.32 2702.79 2136.93 2702.86 2164.98 2702.98
 2190.58 2703.26  2198.2 2703.25    2213 2703.23 2222.42 2703.25 2318.75 2703.49
 2442.53 2704.18 2461.73 2704.36 2487.94 2704.62 2490.56 2704.63 2522.49 2704.95
 2528.56    2705 2531.41 2705.01 2534.04 2705.02 2547.81 2705.05 2574.49 2705.28
 2644.05 2705.74    2670 2705.82 2673.74 2705.85  2677.7 2705.87 2701.06 2706.02
 2703.12 2706.01 2723.89 2706.07 2745.85 2706.17    2767 2706.36 2796.83 2706.66
 2828.71 2706.96 2848.34 2707.17 2875.07 2707.46    2900  2707.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1284.7     .05  2198.2      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1284.7  2198.2           424.89     500  341.32             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2703.70    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.26    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2703.43    Reach Len. (ft)          424.89     500.00     341.32
  Crit W.S. (ft)           2703.09    Flow Area (sq ft)         30.75    1161.25      11.53
  E.G. Slope (ft/ft)      0.013869    Area (sq ft)              30.75    1161.25      11.53
  Q Total (cfs)            4796.14    Flow (cfs)                22.14    4769.17       4.83
  Top Width (ft)           1128.21    Top Width (ft)           116.51     913.50      98.21
  Vel Total (ft/s)            3.99    Avg. Vel. (ft/s)           0.72       4.11       0.42
  Max Chl Dpth (ft)           2.00    Hydr. Depth (ft)           0.26       1.27       0.12
  Conv. Total (cfs)        40726.1    Conv. (cfs)               188.0    40497.0       41.1
  Length Wtd. (ft)          499.75    Wetted Per. (ft)         116.51     913.51      98.21
  Min Ch El (ft)           2701.43    Shear (lb/sq ft)           0.23       1.10       0.10
  Alpha                       1.06    Stream Power (lb/ft s)     0.16       4.52       0.04
  Frctn Loss (ft)             4.98    Cum Volume (acre-ft)       2.84     369.48      58.59
  C & E Loss (ft)             0.02    Cum SA (acres)             8.89     280.63      66.18


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION
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RIVER: Primary
REACH: Primary RS: 21000

INPUT
Description:
Station Elevation Data num= 192

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2706.44	9.57	2706.34	26.31	2706.28	57.32	2706.13	91.61	2705.89
94.26	2705.88	130.3	2705.49	139.15	2705.44	140.83	2705.43	148.45	2705.41
149.91	2705.39	158.17	2705.41	165.85	2705.44	230.53	2705.26	255.77	2705.29
272.18	2705.28	284.4	2705.2	295.34	2705.14	303.43	2705.08	305.81	2705.07
319.46	2705	329.82	2704.86	406.63	2704.09	464.72	2703.67	475.27	2703.63
486.22	2703.58	495.29	2703.52	505.29	2703.44	516.47	2703.38	527.33	2703.3
542.35	2703.22	556.68	2703.15	573.16	2703.02	582.45	2702.99	591.45	2702.96
600.36	2702.94	609.29	2702.93	616.44	2702.91	631.36	2702.85	639.87	2702.81
648.32	2702.76	656.38	2702.72	664.44	2702.68	679.44	2702.65	695.76	2702.57
713.43	2702.46	720.53	2702.41	731.28	2702.33	742.75	2702.24	747.52	2702.19
752.46	2702.14	759.56	2702.1	759.99	2702.09	767.02	2702.04	768.53	2702.03
770.05	2702.02	776.22	2701.97	778.27	2701.96	788.42	2701.89	793.19	2701.85
799.22	2701.78	807.28	2701.71	814.42	2701.65	819.33	2701.61	830.78	2701.6
884.43	2701.33	949.8	2700.85	952.82	2700.83	968.48	2700.67	970.87	2700.65
973.13	2700.63	975.26	2700.62	976.89	2700.6	978.95	2700.59	980.92	2700.57
982.73	2700.56	995.97	2700.47	1010.72	2700.36	1011.92	2700.35	1027.82	2700.26
1028.84	2700.25	1040.5	2700.21	1040.82	2700.2	1047.76	2700.19	1062.85	2700.18
1080.97	2700.2	1099.29	2700.12	1116.4	2700.01	1177.8	2700.02	1181.14	2700.01
1181.4	2700.01	1190.54	2700	1202.79	2699.92	1218.01	2699.82	1223.65	2699.76
1236.47	2699.58	1239.63	2699.53	1246.75	2699.45	1251.53	2699.36	1254.4	2699.3
1283.58	2698.93	1289.98	2698.8	1290.84	2698.79	1300.42	2698.61	1301.23	2698.6
1314.39	2698.36	1316.1	2698.33	1334.92	2697.98	1365.14	2697.47	1380.35	2697.18
1399.56	2696.81	1450.09	2695.81	1491.45	2695	1495	2694.97	1498.42	2694.95
1505.37	2695	1507.9	2695.02	1508.17	2695.03	1513.37	2695.08	1542.65	2695.13
1544.95	2695.14	1560.32	2695.2	1683.36	2696.52	1793.1	2696.91	1799.99	2696.87
1823.12	2696.98	1838.14	2697.05	1862.34	2697.18	1890.21	2697.36	1900.12	2697.41
1915.1	2697.5	1932.22	2697.6	1942.99	2697.64	1957.8	2697.73	1982.61	2697.85
2005.2	2697.94	2018.28	2697.96	2036.08	2698	2049.68	2698.04	2065.15	2698.05
2081	2698.11	2103.54	2698.2	2164.43	2698.59	2245.03	2699.23	2250.53	2699.25
2264.82	2699.39	2283.89	2699.56	2286.99	2699.58	2300.1	2699.68	2318.09	2699.81
2347.87	2700	2352.19	2700.01	2364.94	2700.11	2405.51	2700.35	2433.2	2700.49
2459.95	2700.65	2462.68	2700.64	2494.97	2700.89	2546.99	2701.46	2592.54	2701.4
2611.68	2701.44	2654.47	2701.55	2709.45	2701.85	2717.98	2701.94	2729.62	2702.05
2750.11	2702.14	2764.82	2702.28	2781.74	2702.36	2792.45	2702.41	2809.9	2702.56
2829.55	2702.7	2839.24	2702.79	2879.44	2703.08	2911.39	2703.24	2931.12	2703.33
2988.96	2703.7	3063.87	2704.31	3069	2704.33	3092.06	2704.57	3118.19	2704.81
3140.94	2705	3148.13	2705.06	3177.53	2705.29	3180.07	2705.31	3206.41	2705.53
3226.77	2705.71	3233.27	2705.75	3240.49	2705.8	3261.97	2706	3272.59	2706.09
3286.69	2706.2	3300	2706.32						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	1181.4	.05	2300.1	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1181.4	2300.1	432.44	500	658.41	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2698.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.050	
W.S. Elev (ft)	2698.50	Reach Len. (ft)	432.44	500.00	658.41
Crit W.S. (ft)		Flow Area (sq ft)		1356.46	
E.G. Slope (ft/ft)	0.007514	Area (sq ft)		1356.46	
Q Total (cfs)	4796.14	Flow (cfs)		4796.14	

Top Width (ft)	843.55	Top Width (ft)			843.55	
Vel Total (ft/s)	3.54	Avg. Vel. (ft/s)			3.54	
Max Chl Dpth (ft)	3.55	Hydr. Depth (ft)			1.61	
Conv. Total (cfs)	55328.2	Conv. (cfs)			55328.2	
Length Wtd. (ft)	500.00	Wetted Per. (ft)			843.59	
Min Ch El (ft)	2694.95	Shear (lb/sq ft)			0.75	
Alpha	1.00	Stream Power (lb/ft s)			2.67	
Frctn Loss (ft)	3.97	Cum Volume (acre-ft)		2.69	355.03	58.55
C & E Loss (ft)	0.00	Cum SA (acres)		8.32	270.55	65.79

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 20500

INPUT
Description:
Station Elevation Data num= 200

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2704.93	6.79	2704.92	32.76	2704.91	39.22	2704.9	46.45	2704.91
49.25	2704.9	58.33	2704.91	81.93	2704.9	86.06	2704.89	207.06	2703.66
321.07	2702.72	335.59	2702.52	369.44	2702	421.69	2701.09	426.88	2701.04
428.08	2701.03	429.35	2701.01	432.06	2700.98	436.31	2700.92	480.96	2700.4
483.14	2700.37	483.77	2700.36	522.58	2700	535.69	2699.99	562.22	2699.98
569.42	2699.97	574.04	2699.96	575.16	2699.97	633.4	2699.24	639.71	2699.2
704.66	2698.68	756.48	2698.35	771.56	2698.26	798.34	2698.02	834.63	2697.64
844.77	2697.58	854.46	2697.52	857.37	2697.5	881.3	2697.22	911.64	2696.83
914.27	2696.8	922.05	2696.73	927.41	2696.68	932.45	2696.63	937.45	2696.58
957.43	2696.42	974.12	2696.32	978.11	2696.3	988.77	2696.21	1011.77	2695.98
1012.86	2695.97	1048.56	2695.55	1089.27	2695.01	1090.35	2695	1128	2694.94
1151.51	2694.96	1161.78	2694.95	1176.2	2694.96	1200.98	2694.97	1204.07	2694.96
1225.91	2694.94	1230.82	2694.95	1231.31	2694.94	1236.83	2694.93	1244.1	2694.91
1250.32	2694.89	1313.29	2694.06	1327.93	2693.94	1330.51	2693.92	1331.67	2693.91
1341.46	2693.81	1350.79	2693.72	1353.6	2693.69	1365.68	2693.55	1380.01	2693.48
1396.03	2693.38	1435.54	2692.93	1466.02	2692.61	1488.91	2692.46	1500.75	2692.33
1506.23	2692.34	1514.61	2692.35	1560.71	2692.26	1611.7	2692.06	1643.47	2691.78
1669.11	2691.67	1679.34	2691.62	1700.36	2691.52	1725.95	2691.72	1770.22	2692.03
1810.69	2692.35	1867.72	2692.86	1899.01	2693.2	1924.19	2693.47	1942.16	2693.66
1955.43	2693.78	1968.81	2693.91	1996.38	2694.17	2013.88	2694.31	2016.94	2694.32
2019.82	2694.34	2027.96	2694.4	2038.63	2694.46	2041.31	2694.48	2066.79	2694.6
2072.62	2694.64	2077.53	2694.67	2098.2	2694.77	2122.44	2694.89	2144.37	2695
2169.54	2695.11	2193.82	2695.23	2196.53	2695.25	2199.65	2695.26	2217.42	2695.36
2244.29	2695.51	2275	2695.69	2277.86	2695.7	2304.81	2695.88	2349.97	2696.08
2391.09	2696.24	2414.89	2696.29	2422.67	2696.31	2447.74	2696.38	2454.77	2696.39
2461.97	2696.41	2472.22	2696.45	2499.88	2696.63	2536.5	2696.92	2558.47	2697.01
2565.24	2697.08	2574.26	2697.16	2594.34	2697.28	2609.84	2697.4	2635.03	2697.56
2655.06	2697.72	2695.01	2698.01	2726.68	2698.2	2753.97	2698.34	2764.99	2698.38
2774.99	2698.41	2810.33	2698.61	2850.38	2698.87	2856.46	2698.89	2896.17	2699.18
2900.21	2699.21	2937.57	2699.43	2943.55	2699.47	2948.82	2699.5	2951.17	2699.51
2981	2699.63	2985.65	2699.67	3033.61	2699.94	3037.2	2699.93	3046.64	2699.94
3051.85	2699.95	3063.44	2699.96	3067.97	2699.97	3081.4	2699.98	3083.82	2699.99
3098.62	2700	3101.13	2700.01	3121.35	2700.1	3122.11	2700.11	3122.96	2700.12
3143.51	2700.31	3228.76	2700.94	3296.49	2701.27	3304.23	2701.31	3326.95	2701.45
3356.36	2701.69	3380.97	2701.81	3390.62	2701.91	3401.55	2702.01	3414.17	2702.12
3437.19	2702.32	3451.91	2702.44	3467.07	2702.58	3491.08	2702.81	3520.07	2703.11
3538.26	2703.3	3569.03	2703.6	3581.31	2703.72	3601.11	2703.89	3616.57	2704
3621.69	2704.04	3651.41	2704.28	3678.45	2704.47	3681.68	2704.5	3686.2	2704.52

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 3690.25 2704.55 3702.93 2704.64 3717.65 2704.72 3744.65 2704.87 3767.87    2705
 3781.62 2705.07 3816.07 2705.24 3846.59 2705.37 3875.87 2705.48    3900 2705.62

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1244.1     .05  2098.2      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1244.1  2098.2            905.88     500  269.85             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2694.72    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.22    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2694.49    Reach Len. (ft)          905.88     500.00     269.85
  Crit W.S. (ft)                      Flow Area (sq ft)                  1260.19
  E.G. Slope (ft/ft)      0.008402    Area (sq ft)                       1260.19
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)            763.05    Top Width (ft)                      763.05
  Vel Total (ft/s)            3.81    Avg. Vel. (ft/s)                      3.81
  Max Chl Dpth (ft)           2.97    Hydr. Depth (ft)                      1.65
  Conv. Total (cfs)        52324.6    Conv. (cfs)                        52324.6
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    763.08
  Min Ch El (ft)           2691.52    Shear (lb/sq ft)                      0.87
  Alpha                       1.00    Stream Power (lb/ft s)                3.30
  Frctn Loss (ft)             3.36    Cum Volume (acre-ft)        2.69     340.01      58.55
  C & E Loss (ft)             0.03    Cum SA (acres)              8.32     261.33      65.79


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 20000

INPUT
Description:
Station Elevation Data    num=     156
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2695.62   39.39 2695.58   51.19 2695.56   62.55 2695.55  103.32 2695.56
  131.17  2695.6  161.23 2695.66  198.21 2695.71   204.7  2695.7  239.81 2695.74
  264.61 2695.75  283.66 2695.74  429.92 2695.22  441.47 2695.23  453.91 2695.21
  466.57  2695.2  491.61 2695.17  508.24 2695.15  531.12 2695.13  542.53  2695.1
  550.21 2695.09  554.59 2695.08   565.1 2695.05  573.72 2695.04  581.04 2695.03
  586.54 2695.02  590.01 2695.01  597.05    2695  677.61 2694.21  694.22 2694.05
  813.49 2692.89   896.9 2692.08     945 2691.62 1015.62    2691 1048.06 2690.75
 1050.55 2690.73 1052.95 2690.72 1073.52 2690.51 1074.45  2690.5 1076.94 2690.48
 1081.33 2690.45 1112.09 2690.15 1127.98    2690 1145.29 2689.97 1156.17 2689.96
 1193.16 2689.88 1200.37 2689.86 1214.49 2689.83 1225.94 2689.81 1247.07 2689.86
 1265.89  2689.9 1275.74 2689.92 1283.81 2689.93 1295.27 2689.95 1303.95 2689.96
 1308.72 2689.97 1325.46 2689.99 1332.42    2690 1342.46 2690.03 1359.49    2690
  1361.1 2689.98 1362.24 2689.97 1364.43 2689.93 1371.33 2689.82 1373.84 2689.86
 1382.71    2690  1402.1 2690.01 1423.29 2690.02 1437.98 2690.01  1469.2    2690
 1472.37 2689.67  1472.9 2689.61 1475.07 2689.83  1476.6    2690 1497.65 2689.51
 1498.96 2689.31 1507.81  2688.9 1511.32    2690 1519.62 2689.96 1519.63 2689.97
 1529.65  2689.5  1530.1 2689.53 1530.49 2689.56 1540.89 2689.19 1547.66 2688.98
  1552.4 2688.86 1556.89 2688.74 1672.55  2688.6 1802.92 2689.21 1807.52 2689.27
 1849.87 2689.68 1851.55  2689.7 1855.68 2689.75  1858.6 2689.79 1885.44    2690
 1901.39 2689.99 1907.24 2689.98 1916.98 2689.99 1921.03    2690 1933.81 2690.02
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 1947.43 2690.03 1959.97 2690.02 1973.99    2690 1980.63 2689.97 2000.67 2689.93
 2004.27 2689.94    2016 2689.92 2029.59 2689.93 2038.37 2689.94 2048.08 2689.95
 2073.72    2690 2078.65 2690.02 2092.04 2690.04 2096.01 2690.05  2140.4 2690.29
    2200  2690.5 2224.76  2690.7 2243.75  2690.8 2261.62  2690.9 2263.31 2690.91
 2265.53 2690.93 2285.62 2691.07 2291.72  2691.1    2349 2691.48  2397.2 2691.72
 2410.93 2691.76    24122691.765  2427.3 2691.84 2444.92 2691.93 2461.26 2692.01
 2471.34 2692.06 2478.51 2692.11 2490.62 2692.18 2514.56 2692.31 2530.69 2692.42
 2547.22 2692.54 2561.47 2692.65 2571.25 2692.73 2591.55 2692.86 2598.55 2692.92
 2605.84 2692.96 2614.12    2693 2625.05 2693.11 2666.11 2693.37 2698.43 2693.51
 2706.25 2693.53 2717.22 2693.54 2796.87 2693.92 2902.79 2694.71 2921.85  2694.9
  2922.5 2694.91 2936.92    2695 2946.57 2695.01  2953.6 2695.02 2968.42 2695.03
    3000 2695.17

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     945     .05    2412      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           945    2412           547.79     500  549.68             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2691.33    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.11    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2691.21    Reach Len. (ft)          547.79     500.00     549.68
  Crit W.S. (ft)                      Flow Area (sq ft)                  1781.79
  E.G. Slope (ft/ft)      0.005488    Area (sq ft)                       1781.79
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)           1317.68    Top Width (ft)                     1317.68
  Vel Total (ft/s)            2.69    Avg. Vel. (ft/s)                      2.69
  Max Chl Dpth (ft)           2.61    Hydr. Depth (ft)                      1.35
  Conv. Total (cfs)        64741.4    Conv. (cfs)                        64741.4
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                   1317.96
  Min Ch El (ft)           2688.60    Shear (lb/sq ft)                      0.46
  Alpha                       1.00    Stream Power (lb/ft s)                1.25
  Frctn Loss (ft)             4.21    Cum Volume (acre-ft)        2.69     322.55      58.55
  C & E Loss (ft)             0.02    Cum SA (acres)              8.32     249.39      65.79


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 19500

INPUT
Description:
Station Elevation Data    num=     140
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2689.11    7.67 2689.06   48.35 2688.83   85.21 2688.68   174.2 2688.69
  267.73 2688.87   291.2 2688.97  397.64 2689.73  425.97 2689.96  433.74 2689.97
  446.09 2689.98  455.95 2689.99  464.65    2690  484.89 2690.01     495 2690.02
   513.5 2690.05  519.65 2690.06  545.96 2690.05  572.93 2690.04  585.63 2690.03
  629.69    2690  635.73 2690.01  641.26    2690  643.49 2690.01   652.7 2690.02
  692.96 2690.06   707.8 2690.04  747.89    2690  760.53 2689.97  771.49 2689.93
  773.34 2689.94  784.07 2689.97  786.99 2689.98   791.8    2690  923.64 2689.97
  926.13 2689.99  957.58 2689.89  988.92 2689.73  990.48 2689.72   996.1 2689.68
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 1003.86 2689.61    1014 2689.54 1046.39  2689.3 1049.36 2689.27 1094.21 2688.91
 1097.86 2688.88 1138.79 2688.21 1173.73 2688.31 1188.36 2688.22 1267.11 2687.28
 1417.73 2685.09 1422.76 2685.08 1423.69 2685.07 1443.71 2685.08 1445.84 2685.09
 1446.46 2685.08  1449.6 2685.06 1459.79 2685.05  1468.6 2685.04 1469.51 2685.03
  1474.3 2685.02  1484.7    2685 1491.95 2681.43 1494.98    2680  1507.6 2680.49
 1522.38 2682.18 1548.51 2683.35 1556.36 2683.93 1559.05 2684.12 1560.18  2684.2
 1562.23 2684.32 1579.54 2684.93 1585.14    2685 1591.16 2685.01 1599.77 2685.02
 1617.48 2685.07 1629.04 2685.06 1633.01 2685.07 1646.64 2685.09 1660.65 2685.12
 1676.77 2685.15 1691.01 2685.14 1706.23 2685.15 1718.82 2685.16 1796.73 2685.71
 1810.91 2685.75 1819.34  2685.8 1829.21 2685.87 1835.43 2685.93 1851.39 2685.99
 1854.55 2686.02 1867.59  2686.1 1878.32 2686.19 1888.21 2686.26 1922.92 2686.51
 1953.57  2686.7 1975.47 2686.82  1984.6 2686.87 1993.36 2686.91 2001.87 2686.95
  2026.7 2687.05 2051.93 2687.15  2068.8 2687.19 2085.66 2687.21  2111.9 2687.27
    2112 2687.27 2150.25 2687.19  2188.3 2687.25 2245.46 2687.24 2305.67  2687.1
 2312.76 2687.12 2320.06 2687.14 2340.58 2687.18 2363.33 2687.37 2370.98 2687.42
  2440.6 2687.48 2503.21 2687.36 2518.51 2687.26 2564.87 2687.18 2619.99 2687.69
 2631.67 2687.83  2645.6 2687.76 2652.57 2687.81 2672.34 2687.79 2679.56 2687.78
 2697.76  2687.8 2707.39 2687.78 2726.61 2687.73 2747.63 2687.67 2758.79 2687.74
  2830.1 2687.83 2840.97 2687.89 2864.09 2688.02 2889.67  2688.2 2911.24 2688.38
 2920.17 2688.47 2943.42 2688.68 2961.56 2688.81 2989.52 2688.94 2998.04 2688.99

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1    1014     .05    2112      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1014    2112           331.76     500  347.76             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2687.08    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.35    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2686.73    Reach Len. (ft)           331.76     500.00     347.76
  Crit W.S. (ft)           2686.25    Flow Area (sq ft)                   1005.64
  E.G. Slope (ft/ft)      0.014558    Area (sq ft)                        1005.64
  Q Total (cfs)            4796.14    Flow (cfs)                          4796.14
  Top Width (ft)            654.23    Top Width (ft)                       654.23
  Vel Total (ft/s)            4.77    Avg. Vel. (ft/s)                       4.77
  Max Chl Dpth (ft)           6.73    Hydr. Depth (ft)                       1.54
  Conv. Total (cfs)        39750.8    Conv. (cfs)                         39750.8
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                     655.57
  Min Ch El (ft)           2680.00    Shear (lb/sq ft)                       1.39
  Alpha                       1.00    Stream Power (lb/ft s)                 6.65
  Frctn Loss (ft)             3.85    Cum Volume (acre-ft)        2.69     306.55      58.55
  C & E Loss (ft)             0.06    Cum SA (acres)              8.32     238.07      65.79


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 19000

INPUT
Description:
Station Elevation Data    num=     136
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
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```
       0 2688.48   10.61 2688.41   90.93 2688.17  163.94  2688.1   180.7 2688.13
  250.05 2688.46  337.84 2688.96  361.16 2689.08  382.32 2689.05  426.59 2689.27
  478.83 2689.78  485.03 2689.77  488.28 2689.75  492.62  2689.7  493.63 2689.68
  499.07 2689.67  499.98 2689.66  512.83 2689.53  514.16 2689.52  532.25 2689.29
  557.58 2688.99  562.68 2688.98  589.04 2688.65  610.71 2688.39  622.25  2688.4
  638.28 2688.23  653.79 2688.09  667.75  2688.1  699.43 2687.93  727.17 2687.79
  734.91 2687.74  742.38 2687.69  746.25 2687.66  756.19 2687.69  764.09 2687.62
  791.59 2687.09   815.3 2687.26  960.43 2686.79     984 2686.63 1212.53 2685.02
  1222.6    2685  1228.6 2684.97 1231.08 2684.95 1234.57 2684.92 1238.59 2684.91
 1345.88 2682.81 1420.91 2681.42 1442.85 2680.96 1471.83 2680.35 1475.77 2680.28
 1487.99    2680 1535.91 2680.05 1542.53 2680.07 1587.35 2680.17 1605.78  2680.2
 1624.85 2680.24 1650.94 2680.29 1657.26  2680.3 1685.63 2680.24 1696.95 2680.21
    1700  2680.2 1708.98 2680.19 1719.64 2680.18 1724.06 2680.17 1732.73 2680.16
   1743.5 2680.15 1751.75 2680.14 1759.88 2680.13 1768.82 2680.12 1774.93 2680.11
 1781.86  2680.1 1824.11 2680.56 1828.45  2680.6 1833.32 2680.65  1834.8 2680.67
 1836.36 2680.69 1840.98 2680.72 1844.91 2680.76 1854.84 2680.85 1862.13 2680.92
 1875.54 2681.06 1891.62  2681.2 1904.12 2681.34 1915.73 2681.47 1924.16 2681.57
 1932.13 2681.66 1948.62 2681.79 1967.44 2681.92 1973.66 2681.99 1979.58 2682.06
    2011 2682.43 2035.65  2682.7 2075.32 2682.96 2078.24 2682.99  2127.5 2683.33
 2129.93 2683.36 2170.07 2683.65  2171.8 2683.67 2210.63 2683.94 2265.44  2684.4
    2274 2684.45 2289.16 2684.54  2325.6 2684.71 2367.71 2684.94 2377.97    2685
 2400.69 2685.03 2431.25    2685 2463.61 2685.05 2468.89 2685.08 2471.95 2685.07
 2483.63 2685.08 2500.27  2685.1  2505.1 2685.11 2547.27 2685.14 2573.86 2685.13
 2656.43 2685.35 2681.16 2685.29 2687.22 2685.31 2696.22 2685.44 2698.46 2685.47
 2731.25 2685.53 2732.79 2685.55 2776.13 2685.78 2777.25 2685.79 2814.05 2686.07
 2817.96 2686.08 2826.32 2686.12 2836.45 2686.16 2857.39  2686.4  2879.6 2686.53
 2907.48 2686.75 2917.06 2686.85 2939.73 2687.08 2969.26 2687.41 2998.79 2687.75
    3000 2687.77

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     984     .05    2274      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           984    2274           591.75     500  330.93             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2683.18    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.16    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2683.02    Reach Len. (ft)           591.75     500.00     330.93
  Crit W.S. (ft)                      Flow Area (sq ft)                   1482.24
  E.G. Slope (ft/ft)      0.004750    Area (sq ft)                        1482.24
  Q Total (cfs)            4796.14    Flow (cfs)                          4796.14
  Top Width (ft)            746.48    Top Width (ft)                       746.48
  Vel Total (ft/s)            3.24    Avg. Vel. (ft/s)                       3.24
  Max Chl Dpth (ft)           3.02    Hydr. Depth (ft)                       1.99
  Conv. Total (cfs)        69586.6    Conv. (cfs)                         69586.6
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                     746.53
  Min Ch El (ft)           2680.00    Shear (lb/sq ft)                       0.59
  Alpha                       1.00    Stream Power (lb/ft s)                 1.91
  Frctn Loss (ft)             2.49    Cum Volume (acre-ft)        2.69     292.27      58.55
  C & E Loss (ft)             0.01    Cum SA (acres)              8.32     230.03      65.79


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
```

REACH: Primary RS: 18500

INPUT
Description:
Station Elevation Data num= 153

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2685	11.09	2684.92	32.1	2684.75	34.2	2684.76	92.36	2684.41
143.68	2684.2	150.68	2684.22	160.12	2684.23	169.51	2684.22	177.21	2684.21
204.38	2684.08	213.33	2684.06	252.93	2683.84	281.62	2683.72	308.59	2683.61
319.75	2683.6	345.81	2683.53	374.45	2683.41	384.22	2683.42	410.78	2683.29
419.68	2683.32	440.43	2683.23	469.98	2683.14	498.03	2683.07	521.18	2683.04
532.79	2683.07	575.68	2683.08	620.24	2682.99	643.73	2682.98	654.32	2682.94
695.38	2682.93	705.47	2682.9	719.61	2682.86	736.96	2682.81	758	2682.79
783.47	2682.66	812.25	2682.5	835.26	2682.47	840.78	2682.44	860.35	2682.41
870.5	2682.39	919.14	2682.2	977.14	2681.89	980.53	2681.88	982.22	2681.87
997.88	2681.8	1054.94	2681.67	1108.62	2681.69	1117.44	2681.75	1127.38	2681.8
1148.15	2681.74	1156.45	2681.78	1189.47	2681.63	1200.5	2681.56	1226.56	2681.39
1246.36	2681.17	1250.73	2681.2	1263.12	2681.07	1267.06	2681.09	1273.23	2681.05
1276.79	2681.04	1280.43	2681.03	1286.56	2681.04	1295.51	2681.06	1298.74	2681.03
1316.27	2681.09	1320.39	2681.05	1325.72	2681	1346.3	2681.09	1352.15	2681.04
1475.91	2680.45	1487.95	2680.47	1517.73	2680.5	1530.75	2680.49	1593.18	2680.38
1607.33	2680.34	1616.12	2680.35	1659.18	2680.12	1666.41	2680.1	1678.14	2680.06
1680.39	2680.04	1694.76	2680	1694.96	2679.99	1773.57	2677.82	1819.94	2676.31
1859.75	2675.01	1860.56	2675	1861.55	2674.98	1877.21	2674.73	1881.05	2674.79
1886.38	2674.88	1893.2	2675	1901.32	2675.25	1912.62	2675.6	1918.3	2675.64
1927.35	2675.77	1942.02	2676.11	1965.81	2676.51	1974.57	2676.71	2039.78	2677.93
2053.88	2678.23	2146.73	2680	2167.22	2680.02	2180.43	2680.03	2276.95	2680.02
2311.19	2680.01	2318.8	2680	2337.91	2679.95	2345.36	2679.94	2356.79	2679.9
2357.94	2679.91	2383.29	2680	2395.12	2680.03	2402.16	2680.05	2435.11	2680.17
2451.2	2680.18	2460.07	2680.2	2566.73	2681.1	2604	2681.32	2722.74	2682.03
2744.23	2682.05	2759.28	2682.13	2778.45	2682.23	2796.41	2682.27	2815.75	2682.4
2831.21	2682.51	2838.34	2682.56	2853.26	2682.61	2868.79	2682.66	2880.32	2682.7
2887.97	2682.73	2899.19	2682.78	2910.85	2682.84	2915.9	2682.86	2921.67	2682.89
2927.84	2682.92	2967.94	2683.1	3002.86	2683.19	3013.65	2683.2	3049.05	2683.05
3083	2683.06	3178.04	2683.42	3304.99	2684.09	3334.24	2684.29	3383.5	2684.62
3390.45	2684.67	3396.07	2684.7	3398.31	2684.71	3438.02	2685	3441.91	2685.04
3480.92	2685.42	3485.21	2685.46	3500	2685.61				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	1200.5	.05	2604	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1200.5	2604	674.34	500	556.28	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2680.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.13	Wt. n-Val.		0.050	
W.S. Elev (ft)	2680.55	Reach Len. (ft)	674.34	500.00	556.28
Crit W.S. (ft)		Flow Area (sq ft)		1647.88	
E.G. Slope (ft/ft)	0.005234	Area (sq ft)		1647.88	
Q Total (cfs)	4796.14	Flow (cfs)		4796.14	
Top Width (ft)	1046.16	Top Width (ft)		1046.16	
Vel Total (ft/s)	2.91	Avg. Vel. (ft/s)		2.91	
Max Chl Dpth (ft)	5.82	Hydr. Depth (ft)		1.58	
Conv. Total (cfs)	66292.9	Conv. (cfs)		66292.9	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		1046.29	
Min Ch El (ft)	2674.73	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		1.50	
Frctn Loss (ft)	4.38	Cum Volume (acre-ft)	2.69	274.31	58.55
C & E Loss (ft)	0.02	Cum SA (acres)	8.32	219.74	65.79

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Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 18000

INPUT
Description:
Station Elevation Data    num=     128
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2680.06     7.6 2680.07   22.02 2680.03   39.34 2680.01   45.05    2680
   56.92 2679.93  103.83 2679.72  147.08 2679.55  178.38 2679.46  181.84 2679.44
  185.55 2679.43  191.84  2679.4  198.86 2679.37   237.7 2679.23  244.76 2679.18
  282.13 2679.01  290.37 2678.97  319.22 2678.82  327.45 2678.79  360.18 2678.65
   390.7 2678.53  412.71 2678.48  421.17 2678.45  447.42 2678.33  459.25  2678.3
  483.05 2678.15   501.9 2678.13  545.34 2677.87  584.07 2677.79  631.96 2677.64
  688.69 2677.38  701.69 2677.35  721.25 2677.21  733.34 2677.13  782.69 2677.02
  837.08 2677.04  842.87    2677  849.76 2676.96  859.02 2676.98  870.38 2676.91
  889.15 2676.79  898.64  2676.8  920.43 2676.65  940.96 2676.51  960.57 2676.38
  968.43 2676.36  988.51 2676.24  996.18 2676.22    1000 2676.21 1004.49 2676.23
  1024.9 2676.21 1034.18 2676.24 1056.55 2676.26 1087.28  2676.3 1102.42 2676.34
 1111.21 2676.33 1123.72 2676.39 1128.45 2676.38 1141.46 2676.47  1142.5 2676.46
 1248.64 2675.74 1261.32 2675.78 1271.91 2675.79 1308.23 2675.76 1313.92 2675.77
 1329.59 2675.74 1350.48  2675.7 1369.44 2675.66 1389.98 2675.62 1402.43 2675.63
  1422.8 2675.52 1485.81 2675.19 1488.11 2675.18    1503 2675.14 1506.86 2675.11
  1509.9  2675.1 1523.64 2675.07  1525.7 2675.05 1539.15 2675.04 1540.26 2675.03
 1541.64 2675.02 1543.04    2675 1545.24 2674.96 1545.57 2674.93 1546.19 2674.87
 1572.96 2672.54 1585.35 2671.18 1596.02    2670 1622.89 2674.27 1623.73 2674.52
  1625.3    2675 1639.69 2674.17 1650.03 2673.63 1653.06 2673.49 1693.31 2672.71
 1722.42 2672.52 1736.34 2672.76 1752.23 2673.03 1761.88 2673.25 1767.65 2673.39
 1788.99 2674.01 1819.72    2675 1839.45 2675.04 1847.12 2675.05 1852.99 2675.06
 1855.33 2675.07  1890.6 2675.11 1902.69 2675.18 1981.83 2675.39 2042.97 2676.06
    2054 2676.18  2092.5 2676.59 2147.67 2677.18 2162.38 2677.32 2219.92 2677.94
 2257.48  2678.3 2284.39 2678.58 2374.33  2679.4 2381.67 2679.48 2440.45    2680
 2452.83 2680.02 2453.83 2680.03 2466.75 2680.05 2469.89 2680.06 2479.86 2680.08
 2489.71 2680.09  2493.9 2680.11    2500 2680.12

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1142.5     .05  2092.5      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1142.5  2092.5            470.81     500  445.18             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2676.28    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.33    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2675.95    Reach Len. (ft)          470.81     500.00     445.18
  Crit W.S. (ft)                      Flow Area (sq ft)                  1037.47
  E.G. Slope (ft/ft)      0.017567    Area (sq ft)                       1037.47
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)            815.18    Top Width (ft)                      815.18
  Vel Total (ft/s)            4.62    Avg. Vel. (ft/s)                      4.62
  Max Chl Dpth (ft)           5.95    Hydr. Depth (ft)                      1.27
```

Conv. Total (cfs)	36185.8	Conv. (cfs)		36185.8	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		815.96	
Min Ch El (ft)	2670.00	Shear (lb/sq ft)		1.39	
Alpha	1.00	Stream Power (lb/ft s)		6.45	
Frctn Loss (ft)	4.18	Cum Volume (acre-ft)	2.69	258.90	58.55
C & E Loss (ft)	0.07	Cum SA (acres)	8.32	209.06	65.79

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 17500

INPUT
Description:
Station Elevation Data num= 146

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2675.42	125.2	2675.28	143	2675.18	159.84	2675.1	185.31	2675
187.71	2674.99	218.74	2674.83	240.81	2674.75	262.18	2674.68	290.57	2674.61
319.03	2674.55	322.88	2674.54	344.06	2674.5	357.96	2674.46	373.18	2674.42
383.49	2674.4	389.87	2674.38	407.21	2674.27	413	2674.24	443.29	2674.04
452.19	2674	462.02	2673.94	497.91	2673.72	527.44	2673.58	560.44	2673.49
592.11	2673.43	625.12	2673.46	631.8	2673.42	661.53	2673.45	674.82	2673.46
677.23	2673.47	679.16	2673.46	689.22	2673.41	711.41	2673.3	769.48	2673.19
849.46	2672.66	856.9	2672.57	867.69	2672.45	881.01	2672.29	896.13	2672.11
904.8	2672.06	921.93	2671.95	935.5	2671.76	955.17	2671.6	967.83	2671.45
979.73	2671.35	986.43	2671.3	992.67	2671.25	998.29	2671.22	1006.44	2671.18
1020.15	2671.08	1028.04	2671.04	1034.4	2671	1054.22	2670.95	1059.32	2670.92
1064.05	2670.9	1087.34	2670.84	1092	2670.83	1096.95	2670.82	1118.96	2670.75
1137.61	2670.67	1143.18	2670.68	1148.94	2670.69	1163.46	2670.63	1178.63	2670.5
1180.75	2670.51	1206.07	2670.29	1207.53	2670.3	1237.57	2670.1	1265.62	2670.08
1288.71	2670.2	1308.09	2670.34	1311.39	2670.33	1328.12	2670.51	1354.09	2670.26
1377.48	2670.36	1382.21	2670.37	1402.81	2670.45	1409.1	2670.46	1426.28	2670.52
1433.48	2670.53	1445.92	2670.57	1461.34	2670.59	1474.65	2670.61	1489.78	2670.63
1505.67	2670.64	1521.71	2670.65	1530.38	2670.64	1540	2670.65	1551.18	2670.63
1575.7	2670.67	1600	2670.58	1606.85	2670.57	1668.67	2670.46	1708.11	2670.5
1728.35	2670.4	1729.07	2670.39	1731.12	2670.38	1741.85	2670.36	1744.09	2670.35
1749.52	2670.31	1759.67	2670.29	1761.17	2670.28	1763.61	2670.27	1771.11	2670.25
1774.69	2670.24	1779.26	2670.21	1783.39	2670.2	1786.86	2670.18	1793.99	2670.16
1821.42	2670.15	1829.31	2670.11	1832.66	2670.09	1834.68	2670.08	1837.55	2670.06
1848.15	2670.01	1849.11	2670	1893.67	2666.02	1903.54	2665	1903.96	2664.99
1904.21	2664.98	1904.96	2665	1919.07	2668.23	1930.03	2670	1937.39	2670.01
2022.03	2670.97	2096.22	2671.82	2126.8	2672.07	2163.36	2672.36	2176.37	2672.45
2220.4	2673	2296.79	2673.93	2320	2674.16	2335.15	2674.3	2336.86	2674.32
2363.49	2674.59	2391.92	2674.96	2410.06	2675	2438.77	2675.03	2445.09	2675.04
2459.43	2675.06	2465.99	2675.07	2473.9	2675.08	2480.04	2675.1	2489.48	2675.11
2600	2676.06								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	904.8	.05	2126.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
904.8	2126.8	993.6	500	491.94	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2672.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.11	Wt. n-Val.		0.050	
W.S. Elev (ft)	2671.93	Reach Len. (ft)	993.60	500.00	491.94
Crit W.S. (ft)		Flow Area (sq ft)		1771.01	
E.G. Slope (ft/ft)	0.004866	Area (sq ft)		1771.01	
Q Total (cfs)	4796.14	Flow (cfs)		4796.14	
Top Width (ft)	1185.31	Top Width (ft)		1185.31	
Vel Total (ft/s)	2.71	Avg. Vel. (ft/s)		2.71	
Max Chl Dpth (ft)	6.94	Hydr. Depth (ft)		1.49	
Conv. Total (cfs)	68757.4	Conv. (cfs)		68757.4	
Length Wtd. (ft)	507.04	Wetted Per. (ft)		1186.07	
Min Ch El (ft)	2664.98	Shear (lb/sq ft)		0.45	
Alpha	1.00	Stream Power (lb/ft s)		1.23	
Frctn Loss (ft)	4.47	Cum Volume (acre-ft)	2.69	242.78	58.55
C & E Loss (ft)	0.04	Cum SA (acres)	8.32	197.58	65.79

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 17000

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2670.22	25.14	2670.08	40.2	2670.01	46.53	2670	48.88	2669.99
57.55	2669.96	119.78	2669.87	180.46	2669.86	222.95	2669.94	264.75	2669.89
267.09	2669.88	269.39	2669.87	304.24	2669.73	306.11	2669.72	333.85	2669.56
356.92	2669.43	361.79	2669.41	367.1	2669.38	371.91	2669.34	374.94	2669.32
377.87	2669.29	402.53	2669.14	408.63	2669.09	415.98	2669.03	424.62	2668.95
434.88	2668.84	463.93	2668.59	475.63	2668.47	490.41	2668.32	519.53	2668.03
536.51	2667.88	561.19	2667.62	577.32	2667.48	594.61	2667.29	648.69	2666.82
685.64	2666.57	702.5	2666.44	709.34	2666.42	714.44	2666.4	742.49	2666.43
774.2	2666.58	790.45	2666.41	795.78	2666.47	800.44	2666.51	822.56	2666.39
826.9	2666.43	832.71	2666.48	839.65	2666.53	866.82	2666.57	874.3	2666.62
884.43	2666.66	914.42	2666.85	929.96	2666.89	958.04	2667.12	996.07	2667.29
1004.54	2667.36	1012.6	2667.42	1024.54	2667.48	1040.97	2667.4	1056.37	2667.47
1069.73	2667.53	1079.41	2667.59	1092.55	2667.47	1166.12	2667.36	1249.55	2667.14
1261.14	2667.04	1270	2666.93	1373.55	2665.68	1417.25	2665.09	1421.42	2665.08
1423.4	2665.07	1429.03	2665.06	1431.25	2665.05	1436.55	2665.03	1442.78	2665.02
1448.22	2665	1463.84	2663.54	1498.32	2660	1503.86	2660.46	1516.08	2665
1525.86	2665.03	1527.61	2665.04	1534.98	2665.06	1536.32	2665.07	1538.7	2665.08
1547.14	2665.09	1552.51	2665.12	1555.07	2665.13	1561.48	2665.16	1567.67	2665.18
1567.97	2665.19	1645.86	2665.85	1746	2667.12	1862.22	2668.6	1913.09	2669.19
1945.97	2669.73	1947.19	2669.74	1948.22	2669.75	1962.68	2670	1974.87	2670.08
1988.84	2670.1	1998.91	2670.13						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	1270	.05	1746	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1270	1746	772.51	500	508.83	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2667.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.100	0.050	
W.S. Elev (ft)	2666.99	Reach Len. (ft)	772.51	500.00	508.83
Crit W.S. (ft)	2666.84	Flow Area (sq ft)	121.01	777.20	
E.G. Slope (ft/ft)	0.020618	Area (sq ft)	121.01	777.20	
Q Total (cfs)	4796.14	Flow (cfs)	136.86	4659.28	
Top Width (ft)	783.12	Top Width (ft)	317.48	465.64	
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)	1.13	5.99	
Max Chl Dpth (ft)	6.99	Hydr. Depth (ft)	0.38	1.67	
Conv. Total (cfs)	33401.5	Conv. (cfs)	953.1	32448.4	
Length Wtd. (ft)	503.91	Wetted Per. (ft)	317.48	466.75	
Min Ch El (ft)	2660.00	Shear (lb/sq ft)	0.49	2.14	
Alpha	1.23	Stream Power (lb/ft s)	0.55	12.85	
Frctn Loss (ft)	5.32	Cum Volume (acre-ft)	1.31	228.15	58.55
C & E Loss (ft)	0.12	Cum SA (acres)	4.70	188.10	65.79

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 16500

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2663.38	21.89	2663.27	105.93	2663.03	116.52	2662.97	146.39	2662.96
156.3	2662.93	185.73	2662.91	207.45	2662.89	218.91	2662.88	231.11	2662.87
280.64	2662.89	308.41	2662.88	323.14	2662.9	356.15	2662.88	380.72	2662.85
393.5	2662.83	418.32	2662.78	444.8	2662.69	462.4	2662.64	474.65	2662.61
506.9	2662.47	536.37	2662.39	546.84	2662.35	559.07	2662.38	637.17	2662.2
732.6	2661.77	733.61	2661.76	743.77	2661.69	757.08	2661.63	763.84	2661.59
775.65	2661.54	786.92	2661.48	804.85	2661.36	830.59	2661.2	836.07	2661.17
840.8	2661.14	875.16	2660.96	881.51	2660.92	887.78	2660.89	891.97	2660.86
932.55	2660.7	956.91	2660.63	979.56	2660.65	1007.05	2660.53	1015.91	2660.8
1024.97	2660.43	1025.8	2660.44	1027.7	2660.43	1029.66	2660.44	1032.29	2660.45
1034.86	2660.47	1056.7	2660.42	1079.15	2660.34	1080.69	2660.35	1082.34	2660.37
1118.07	2660.23	1152.43	2660.13	1153.06	2660.14	1181.43	2660.07	1204.69	2660.01
1207.52	2660	1229.5	2659.99	1262.76	2660	1283.23	2660.02	1308.31	2660.07
1312.1	2660.08	1352.29	2660.19	1382.84	2660.14	1404.16	2660.11	1417.58	2660.08
1421.59	2660.06	1441.69	2660.02	1442.99	2660.01	1449.32	2660	1467.92	2659.6
1474.94	2659.48	1480.11	2659.33	1489.82	2659.05	1490.7	2659.02	1505.88	2659.5
1515.3	2659.75	1522.69	2660	1527.28	2660.03	1530.47	2660.04	1535.38	2660.07
1539.65	2660.09	1542.36	2660.11	1545.87	2660.12	1548.89	2660.14	1552.07	2660.16
1552.99	2660.17	1553.64	2660.18	1555	2660.19	1555.7	2660.2	1558.06	2660.23
1646.57	2660.44	1682.35	2660.79	1746.38	2661.01	1795.2	2661.66	1873.67	2662.72
1900.07	2663.02	1917.89	2663.19	1933.66	2663.33	1947.19	2663.45	1959.6	2663.55
1987.11	2663.88	1993.54	2663.93	2030.24	2664.34	2078.65	2664.86	2079.62	2664.88
2091.81	2665	2104.9	2665.03	2106.29	2665.04	2118.85	2665.08	2200	2666.12

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	732.6	.05	1795.2	.1

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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         732.6  1795.2            427.6     500   369.1             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2662.09    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.15    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2661.94    Reach Len. (ft)          427.60     500.00     369.10
  Crit W.S. (ft)                      Flow Area (sq ft)          3.36    1561.14       2.99
  E.G. Slope (ft/ft)      0.006394    Area (sq ft)               3.36    1561.14       2.99
  Q Total (cfs)            4796.14    Flow (cfs)                 0.78    4794.39       0.97
  Top Width (ft)           1122.27    Top Width (ft)            38.64    1062.60      21.04
  Vel Total (ft/s)            3.06    Avg. Vel. (ft/s)           0.23       3.07       0.32
  Max Chl Dpth (ft)           2.92    Hydr. Depth (ft)           0.09       1.47       0.14
  Conv. Total (cfs)        59978.2    Conv. (cfs)                 9.8    59956.3       12.1
  Length Wtd. (ft)          499.98    Wetted Per. (ft)          38.64    1062.65      21.04
  Min Ch El (ft)           2659.02    Shear (lb/sq ft)           0.03       0.59       0.06
  Alpha                       1.01    Stream Power (lb/ft s)     0.01       1.80       0.02
  Frctn Loss (ft)             5.10    Cum Volume (acre-ft)       0.20     214.73      58.53
  C & E Loss (ft)             0.02    Cum SA (acres)             1.55     179.33      65.67


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 16000

INPUT
Description:
Station Elevation Data    num=     105
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2660.88    3.32 2660.87   62.98 2660.62  130.98 2660.29  164.39 2660.08
  177.17    2660  183.92 2659.98  255.11 2659.62  331.16 2659.41  334.71  2659.4
  342.77 2659.36  369.62 2659.33  372.75 2659.31  393.95 2659.26  397.73 2659.24
  403.36  2659.2   429.2 2659.08  435.59 2659.03   458.8 2658.97  481.36 2658.92
  485.48 2658.89  502.43 2658.87  505.64 2658.85  510.51 2658.83  526.47  2658.7
  533.62 2658.68  578.27 2658.44  618.51 2658.32  641.36  2658.3  651.77 2658.29
  663.43 2658.28  675.84 2658.26   699.6  2658.2  711.26 2658.17   731.4  2658.1
   740.3 2658.09  757.05 2658.01  777.28 2657.93  782.03 2657.94  790.85 2657.95
   808.1 2657.96  830.04 2657.94   843.4 2657.84  866.16 2657.78   866.8 2657.77
  892.49 2657.64  922.84 2657.44  944.91 2657.28  960.36 2657.17  973.24 2657.05
   990.5 2656.94 1021.19 2656.76 1034.13 2656.63 1060.61 2656.45  1090.1 2656.24
 1101.66 2656.13 1111.52 2656.05 1120.04 2655.98 1140.42 2655.85 1145.25 2655.81
 1151.09 2655.76 1158.25 2655.72 1164.64 2655.68  1169.9 2655.66 1172.94 2655.65
 1175.86 2655.63 1207.03  2655.5 1210.57 2655.48 1243.33 2655.36 1246.48 2655.35
 1249.09 2655.34 1265.72 2655.27 1271.56 2655.25 1280.49 2655.26 1293.69  2655.1
  1321.4 2655.09 1355.94 2655.14 1376.17 2655.08 1393.29 2655.01 1397.78    2655
  1403.4  2654.9 1473.51 2654.26 1533.56 2654.19 1547.33 2654.38 1571.08 2654.73
 1588.08    2655  1591.8 2655.01 1597.44 2655.08 1618.95 2655.25 1639.01 2655.41
  1660.2 2655.53 1662.73 2655.52 1747.61 2655.71 1914.46 2657.49 1941.58 2657.74
 1959.59 2657.91    1969 2657.99  1975.2 2658.04 1995.32 2658.22 2000.89 2658.27
 2024.93 2658.46 2065.48 2658.77 2116.23 2659.16 2163.07 2659.53    2200 2659.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
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       0      .1   866.8     .05    1969      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         866.8    1969           728.34     500  600.53             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2656.98    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.35    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2656.62    Reach Len. (ft)          728.34     500.00     600.53
  Crit W.S. (ft)           2656.36    Flow Area (sq ft)                  1008.41
  E.G. Slope (ft/ft)      0.018752    Area (sq ft)                       1008.41
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)            798.12    Top Width (ft)                      798.12
  Vel Total (ft/s)            4.76    Avg. Vel. (ft/s)                      4.76
  Max Chl Dpth (ft)           2.43    Hydr. Depth (ft)                      1.26
  Conv. Total (cfs)        35024.3    Conv. (cfs)                        35024.3
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    798.14
  Min Ch El (ft)           2654.19    Shear (lb/sq ft)                      1.48
  Alpha                       1.00    Stream Power (lb/ft s)                7.03
  Frctn Loss (ft)             5.45    Cum Volume (acre-ft)        0.19     199.99      58.52
  C & E Loss (ft)             0.07    Cum SA (acres)              1.36     168.65      65.58


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 15500

INPUT
Description:
Station Elevation Data    num=     108
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    2655   58.11 2654.47   63.47 2654.44  103.23 2654.04  110.83 2654.01
  123.37 2653.93  138.01 2653.84  151.29 2653.74  171.51 2653.56  180.16 2653.53
  189.65 2653.43  295.28 2652.67  364.94 2652.26  380.26 2652.12  389.69 2652.09
  408.74 2651.92  420.31 2651.87  437.41 2651.71  450.54 2651.58   460.8 2651.54
  470.52 2651.45  481.77 2651.39  494.02 2651.29  518.12 2651.11  546.49  2650.9
  554.05 2650.84  574.89 2650.69   579.9 2650.65  583.36 2650.62  604.65 2650.49
  607.49 2650.47  640.27  2650.3  642.67 2650.28  644.66 2650.27  647.74 2650.25
  650.49 2650.24  683.04 2650.12  712.45 2650.09  733.85 2650.02  746.44 2650.03
  773.15 2650.02  789.02    2650     800 2649.93  831.53 2649.91  845.42  2649.9
  862.44 2649.86  908.59 2649.76   953.6 2649.74   977.9 2649.77 1005.94 2649.78
 1028.42 2649.75 1063.29 2649.77 1085.45 2649.79 1087.21  2649.8 1088.67 2649.81
 1142.44 2649.93 1167.81 2649.94 1181.58 2649.92 1189.81 2649.93 1220.35    2650
  1235.3 2650.01 1256.98 2650.04 1332.68 2650.16  1417.2 2650.03 1431.92    2650
 1441.94 2649.99 1461.86 2649.98 1487.21 2649.97 1493.53 2649.96 1510.46 2649.97
 1532.04 2649.98 1580.15 2649.81 1603.83 2649.96 1616.72 2649.95 1628.46 2649.94
 1638.88 2649.93 1665.73 2649.91 1680.43 2649.93 1720.87    2650 1736.78 2650.19
 1755.08 2650.41 1758.05 2650.42 1765.31 2650.43 1773.49 2650.47 1792.38 2650.66
 1885.49 2651.46  1903.2 2651.58 1904.16 2651.59 1979.72 2652.34  1984.5 2652.38
 2021.89 2652.68 2039.53 2652.83  2070.4 2653.09 2101.69 2653.32 2138.34 2653.62
 2159.56 2653.79 2169.37 2653.86  2178.1 2653.93 2188.86    2654 2197.95 2654.05
 2206.16 2654.09 2242.74 2654.39 2246.74 2654.41 2290.31 2654.74 2292.16 2654.75
 2324.83    2655 2363.95 2655.31    2400  2655.6
```

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   460.8     .05  1903.2      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         460.8  1903.2           405.27     500  516.58             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2651.46    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.13    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2651.34    Reach Len. (ft)           405.27     500.00     516.58
  Crit W.S. (ft)                      Flow Area (sq ft)                   1679.63
  E.G. Slope (ft/ft)      0.007123    Area (sq ft)                        1679.63
  Q Total (cfs)            4796.14    Flow (cfs)                          4796.14
  Top Width (ft)           1382.67    Top Width (ft)                      1382.67
  Vel Total (ft/s)            2.86    Avg. Vel. (ft/s)                       2.86
  Max Chl Dpth (ft)           1.60    Hydr. Depth (ft)                       1.21
  Conv. Total (cfs)        56828.4    Conv. (cfs)                         56828.4
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    1382.68
  Min Ch El (ft)           2649.74    Shear (lb/sq ft)                       0.54
  Alpha                       1.00    Stream Power (lb/ft s)                 1.54
  Frctn Loss (ft)             4.54    Cum Volume (acre-ft)        0.19     184.56      58.52
  C & E Loss (ft)             0.01    Cum SA (acres)              1.36     156.14      65.58


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 15000

INPUT
Description:
Station Elevation Data    num=     111
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2649.72    4.16 2649.68   24.14 2649.49   54.73 2649.24    62.5  2649.2
    97.2 2648.98  128.73 2648.81  152.62 2648.74  164.79 2648.66  178.81 2648.55
   193.7  2648.5  202.06 2648.47  211.87 2648.38  218.17 2648.35  230.34 2648.26
   238.7 2648.21  260.54 2648.05  270.47 2647.99  281.03 2647.92  297.63 2647.81
  318.54 2647.65  342.65 2647.48  353.68 2647.39  381.99 2647.17  390.26 2647.09
   416.5 2646.87  427.96 2646.77  443.99 2646.63   445.2 2646.62  455.29 2646.53
  463.74 2646.45  471.84  2646.4   482.6 2646.31  492.17 2646.24  499.47  2646.2
  505.43 2646.17  523.11 2646.12  539.96 2646.11  545.11 2646.12  550.43 2646.11
  572.45 2646.08  594.95 2646.02  628.68 2645.92  655.86 2645.81  659.94 2645.79
  684.49  2645.7  687.48 2645.68  710.92 2645.61  712.65  2645.6  736.78 2645.55
  738.71 2645.53  743.83  2645.5  748.46 2645.48  774.61 2645.47  805.04 2645.48
  807.53 2645.47  837.49 2645.51  839.86  2645.5  841.63 2645.49  877.43 2645.52
  879.58 2645.51  917.87 2645.52   961.8 2645.51  971.99 2645.53  973.89 2645.54
  997.12 2645.57 1019.68 2645.64 1053.35 2645.76 1155.59 2645.29 1164.11 2645.31
  1179.2 2645.34  1209.5 2645.29  1213.6 2645.28 1237.45 2645.19 1253.29 2645.15
 1299.17    2645 1320.52 2644.99 1342.44    2645 1344.89 2645.02 1381.85 2645.08
 1393.91 2645.11  1427.4 2645.19 1439.43 2645.21 1468.19 2645.29 1475.51 2645.31
 1487.13 2645.35 1495.47 2645.33 1504.55 2645.32 1510.41 2645.34  1640.1 2646.66
 1666.82 2646.93 1683.33 2647.06 1699.23 2647.15 1724.87 2647.32 1759.76 2647.56
 1803.54 2647.91 1848.81 2648.29 1870.86 2648.45 1886.84 2648.57 1916.38 2648.81
 1926.86 2648.89 1935.57 2648.95 1961.79 2649.14 1968.31 2649.18 1974.12 2649.22
 2014.64 2649.51 2018.11 2649.53 2066.22 2649.86  2067.9 2649.87 2094.66    2650
    2100 2650.02
```

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   445.2     .05  1640.1      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         445.2  1640.1           381.79     500  424.41             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2646.92    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.19    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2646.73    Reach Len. (ft)          381.79     500.00     424.41
  Crit W.S. (ft)                      Flow Area (sq ft)          0.63    1356.45       0.21
  E.G. Slope (ft/ft)      0.011953    Area (sq ft)               0.63    1356.45       0.21
  Q Total (cfs)            4796.14    Flow (cfs)                 0.14    4795.96       0.03
  Top Width (ft)           1213.35    Top Width (ft)            12.05    1194.90       6.40
  Vel Total (ft/s)            3.53    Avg. Vel. (ft/s)           0.23       3.54       0.16
  Max Chl Dpth (ft)           1.73    Hydr. Depth (ft)           0.05       1.14       0.03
  Conv. Total (cfs)        43869.1    Conv. (cfs)                 1.3    43867.5        0.3
  Length Wtd. (ft)          499.88    Wetted Per. (ft)          12.05    1194.91       6.40
  Min Ch El (ft)           2644.99    Shear (lb/sq ft)           0.04       0.85       0.02
  Alpha                       1.00    Stream Power (lb/ft s)     0.01       3.00       0.00
  Frctn Loss (ft)             4.43    Cum Volume (acre-ft)       0.19     167.13      58.51
  C & E Loss (ft)             0.02    Cum SA (acres)             1.30     141.34      65.54


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 14500

INPUT
Description:
Station Elevation Data    num=     120
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2651.05    44.3  2650.8  142.72 2650.06  152.57 2650.04   154.3 2650.03
  167.68    2650     194 2649.68  220.46 2649.37  234.17 2649.21  248.73 2649.03
  272.51 2648.75  306.08 2648.37  329.47 2648.17  364.25 2647.83  392.59 2647.58
  412.27 2647.44  444.07 2647.13  485.57 2646.66  494.88 2646.58  499.87 2646.55
  530.28 2646.17  533.25 2646.15  538.74 2646.09  564.49 2645.83  571.86 2645.75
  600.96 2645.47  634.26 2645.14  647.57    2645  680.65 2644.61  681.64  2644.6
  682.93 2644.59  685.42 2644.56  735.91 2643.97   745.8 2643.87  786.85 2643.36
  806.38  2643.2  846.88 2642.76  878.11 2642.47  895.25 2642.34   913.1  2642.2
  941.87 2642.05  956.13 2641.94   956.8 2641.93  967.38 2641.85   995.9 2641.76
 1005.73 2641.69 1015.09 2641.63 1024.85 2641.59 1034.98 2641.55 1069.39 2641.42
    1107 2641.23 1115.81  2641.2 1139.17 2641.05 1147.65 2641.02 1170.49 2640.91
 1178.63 2640.88 1196.36 2640.82 1202.74 2640.79 1206.86 2640.78 1216.68 2640.77
 1236.85 2640.75 1273.16 2640.73 1303.88 2640.71 1349.71 2640.63  1392.3 2640.49
  1423.6  2640.3 1427.88 2640.29 1459.88 2640.13 1486.01 2640.09 1506.34 2640.12
 1526.47 2640.15 1549.66 2640.19 1552.39 2640.18  1554.8 2640.17 1585.38 2640.23
 1617.94 2640.33 1721.35 2640.36 1725.62 2640.35 1837.29 2641.25 1848.96 2641.34
 1876.95  2641.5 1887.22 2641.58 1937.33 2641.78 1982.94 2641.89  2003.2  2641.9
 2010.07 2641.95 2024.27 2641.94 2038.61 2641.92 2052.58 2641.88 2066.83 2641.86
 2075.04 2641.83 2080.07 2641.84 2116.81 2641.88  2126.8 2641.92 2143.14 2641.98
 2163.22 2642.13 2171.94 2642.19 2191.95 2642.35  2211.7 2642.52 2227.91 2642.67
 2249.04 2642.82 2270.77 2643.04 2293.37 2643.19 2311.31 2643.36 2335.12  2643.5
 2345.93  2643.6 2371.17 2643.75 2397.82 2643.89 2420.02 2643.96 2441.36  2644.1
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 2460.56 2644.23 2483.31 2644.41 2508.17 2644.62 2528.91  2644.8 2529.88 2644.81
 2549.97 2644.99 2551.73    2645 2553.32 2645.01 2576.12 2645.18    2600 2645.34

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   956.8     .05  2126.8      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         956.8  2126.8            366.41     500  368.01             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2642.48    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.14    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2642.34    Reach Len. (ft)          366.41     500.00     368.01
  Crit W.S. (ft)                      Flow Area (sq ft)         12.44    1587.60      14.88
  E.G. Slope (ft/ft)      0.006844    Area (sq ft)              12.44    1587.60      14.88
  Q Total (cfs)            4796.14    Flow (cfs)                 5.29    4783.90       6.95
  Top Width (ft)           1294.65    Top Width (ft)            61.15    1170.00      63.50
  Vel Total (ft/s)            2.97    Avg. Vel. (ft/s)           0.43       3.01       0.47
  Max Chl Dpth (ft)           2.25    Hydr. Depth (ft)           0.20       1.36       0.23
  Conv. Total (cfs)        57975.6    Conv. (cfs)                63.9    57827.6       84.0
  Length Wtd. (ft)          499.83    Wetted Per. (ft)          61.15    1170.01      63.50
  Min Ch El (ft)           2640.09    Shear (lb/sq ft)           0.09       0.58       0.10
  Alpha                       1.03    Stream Power (lb/ft s)     0.04       1.75       0.05
  Frctn Loss (ft)             4.25    Cum Volume (acre-ft)       0.13     150.24      58.44
  C & E Loss (ft)             0.01    Cum SA (acres)             0.98     127.77      65.20


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 14000

INPUT
Description:
Station Elevation Data    num=     122
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2650.54    31.1  2650.3    59.4 2650.11   60.45 2650.09   70.84 2650.01
   79.48    2650   95.65 2649.97   133.4 2649.76  135.13 2649.74  192.26 2649.33
  197.59 2649.26  204.46 2649.18  253.69 2648.76  263.97 2648.63  276.24 2648.47
  298.34 2648.26  314.82 2648.03  323.56 2647.94  345.96 2647.64  347.55 2647.62
  377.72 2647.25  414.23 2646.81  459.07 2646.25  523.29 2645.44   556.4    2645
  618.52 2644.14  687.46 2643.22  737.18 2642.62  771.39 2642.17  798.61 2641.85
  827.04 2641.47  859.36 2641.02  924.51 2640.08  925.19 2640.07  930.29    2640
  994.31 2639.33  998.43  2639.3 1001.34 2639.28 1004.42 2639.26 1064.86 2638.65
    10652638.649  1085.2 2638.51 1140.05 2638.01 1181.67 2637.66 1247.01 2637.23
 1295.47 2636.98 1327.48 2636.75 1352.76 2636.55 1361.27 2636.51 1380.46 2636.37
 1387.34 2636.31 1410.17 2636.17 1428.98 2636.08 1446.68 2636.01 1454.31 2635.99
 1459.27 2635.98 1462.22 2635.97 1481.45 2635.94 1483.34 2635.93 1499.76 2635.91
 1517.14 2635.83 1532.18 2635.79 1675.95 2635.94 1703.11 2635.83 1869.05 2636.78
 1879.55 2636.87 1886.92 2636.93 1918.39 2637.13 1946.15 2637.29  1972.9 2637.43
 1988.18  2637.5 1997.68 2637.54 2005.08  2637.6 2014.88 2637.65 2026.33  2637.7
 2039.88 2637.75 2049.78 2637.81 2066.37 2637.89 2080.78 2637.95 2108.55 2638.08
 2133.43 2638.17 2143.42 2638.18 2153.78 2638.19 2170.81 2638.24  2181.1 2638.26
 2200.08 2638.31 2220.96 2638.37 2243.81 2638.46 2261.04 2638.49 2277.75  2638.5
 2299.02 2638.59 2318.01 2638.65 2332.04 2638.68 2335.28 2638.69 2361.44 2638.74
 2386.86 2638.73    2403 2638.71    2409  2638.7 2431.97 2638.65 2450.29 2638.63
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 2468.47 2638.62 2556.34 2638.75 2648.02 2639.07 2679.78 2639.28 2681.82 2639.29
 2683.82  2639.3 2687.26 2639.31 2734.99 2639.65 2737.65 2639.66 2740.96 2639.68
 2786.69 2639.94 2808.71 2639.98 2838.04 2639.97 2844.89 2639.98 2855.16 2639.97
 2875.69 2639.96 2895.27 2639.95 2899.64 2639.96  2930.1 2639.99 2943.11    2640
 2952.98 2640.02    3000  2640.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1    1065     .05    2403      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1065    2403           652.43     500  602.05             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2638.23    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.22    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2638.01    Reach Len. (ft)          652.43     500.00     602.05
  Crit W.S. (ft)                      Flow Area (sq ft)                  1275.23
  E.G. Slope (ft/ft)      0.010857    Area (sq ft)                       1275.23
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)            952.65    Top Width (ft)                      952.65
  Vel Total (ft/s)             3.76    Avg. Vel. (ft/s)                      3.76
  Max Chl Dpth (ft)            2.22    Hydr. Depth (ft)                      1.34
  Conv. Total (cfs)        46030.6    Conv. (cfs)                        46030.6
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    952.67
  Min Ch El (ft)           2635.79    Shear (lb/sq ft)                      0.91
  Alpha                        1.00    Stream Power (lb/ft s)                3.41
  Frctn Loss (ft)              5.70    Cum Volume (acre-ft)        0.08     133.81      58.38
  C & E Loss (ft)              0.01    Cum SA (acres)              0.72     115.59      64.93


Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 13500

INPUT
Description:
Station Elevation Data    num=     164
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2646.67   69.11 2645.39   90.49    2645  175.21 2644.19  244.94 2643.54
  291.96 2643.22  303.28  2643.1  343.48 2642.85  370.34  2642.7  384.16 2642.57
  395.42  2642.5  421.81 2642.25   454.7 2641.89  457.27 2641.87   482.1 2641.59
  484.01 2641.57  491.18 2641.51  505.37 2641.37   573.6 2640.75  641.75 2640.02
  643.57 2640.01  647.67    2640  668.46 2639.77  670.06 2639.75  699.34 2639.44
  703.37 2639.41   721.5 2639.22  726.02 2639.18  730.76 2639.14  736.07 2639.08
  749.98 2638.95  772.43  2638.7  796.86 2638.46   829.6 2638.09   866.4 2637.71
  922.35  2637.1  973.56 2636.54 1004.61  2636.2 1046.79 2635.74 1106.68 2635.09
 1108.58 2635.07 1110.32 2635.05 1111.35 2635.04 1115.01    2635 1144.79 2634.64
 1147.72 2634.62  1180.9 2634.24 1205.12 2633.96 1214.26 2633.93 1259.54 2633.48
 1295.76 2633.14 1316.51 2632.97 1364.45  2632.6  1371.8 2632.55 1402.78 2632.37
 1421.59 2632.29 1442.58 2632.27 1447.26 2632.23 1513.88 2632.16 1574.95  2632.2
 1586.96 2632.24 1607.54 2632.22 1627.62 2632.19 1637.76 2632.22 1654.75 2632.19
 1667.23 2632.17    1677 2632.19  1686.4 2632.17 1695.19 2632.16 1704.68 2632.15
 1726.12 2632.14 1738.61 2632.13 1778.05 2632.02 1821.59 2631.84  1840.9 2631.72
 1861.78 2631.58  1883.4 2631.43 1890.85 2631.41 1913.36 2631.33 1920.39 2631.28
 1983.95 2631.05 2059.98 2630.55 2093.26  2630.3 2098.09 2630.28 2102.21 2630.26
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 2104.29 2630.25 2133.36 2630.01 2156.52 2630.04 2176.61 2630.09 2177.08  2630.1
 2198.98  2630.2 2199.89 2630.21  2223.9 2630.34 2225.84 2630.35 2228.55 2630.37
 2232.33  2630.4 2236.36 2630.43 2241.31 2630.49 2272.94 2630.68 2312.64 2630.88
 2349.09 2631.03 2378.06  2631.1 2423.19 2631.13 2469.13 2631.03 2469.27 2631.04
 2488.46  2630.9 2509.75 2630.86 2535.18 2630.77 2561.98 2630.64 2579.53 2630.67
  2589.3 2630.62 2600.97 2630.63 2603.82 2630.64 2608.29 2630.65 2612.94 2630.66
 2651.97 2631.01 2659.94 2631.06 2668.54 2631.11 2708.65 2631.51 2715.03 2631.54
 2717.79 2631.56    2742  2631.8 2744.25 2631.81 2761.79    2632 2780.74 2632.21
 2801.61 2632.46 2820.09 2632.53 2823.51 2632.52    2831 2632.54 2929.95 2632.85
 3098.53 2633.99 3107.14 2634.05 3143.83 2634.39 3148.18 2634.43 3190.09 2634.74
 3192.33 2634.76 3194.35 2634.77  3196.1 2634.79 3199.39 2634.81 3202.07 2634.83
 3205.81 2634.84 3214.96 2634.88 3228.78 2634.97 3234.18    2635 3244.99 2635.01
 3252.36 2635.02 3259.35 2635.03 3307.08 2635.26 3308.07 2635.27 3314.65  2635.3
 3330.98 2635.39 3412.12 2635.74 3482.98 2635.98 3494.21    2636 3506.38 2636.01
 3517.85 2636.03 3529.52 2636.04 3541.38 2636.05 3564.14 2636.07 3578.28 2636.09
 3601.73 2636.12 3622.43 2636.16 3770.82  2636.1    3800 2636.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1371.8     .05    2831      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1371.8    2831           692.56     500  324.43             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2632.52    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.17    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2632.34    Reach Len. (ft)          692.56     500.00     324.43
  Crit W.S. (ft)           2631.81    Flow Area (sq ft)                  1436.22
  E.G. Slope (ft/ft)      0.012000    Area (sq ft)                       1436.22
  Q Total (cfs)            4796.14    Flow (cfs)                         4796.14
  Top Width (ft)           1382.39    Top Width (ft)                     1382.39
  Vel Total (ft/s)            3.34    Avg. Vel. (ft/s)                      3.34
  Max Chl Dpth (ft)           2.33    Hydr. Depth (ft)                      1.04
  Conv. Total (cfs)        43782.6    Conv. (cfs)                        43782.6
  Length Wtd. (ft)          500.02    Wetted Per. (ft)                   1382.41
  Min Ch El (ft)           2630.01    Shear (lb/sq ft)                      0.78
  Alpha                       1.00    Stream Power (lb/ft s)                2.60
  Frctn Loss (ft)             3.46    Cum Volume (acre-ft)        0.08     118.25      58.38
  C & E Loss (ft)             0.03    Cum SA (acres)              0.72     102.19      64.93


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 13000

INPUT
Description:
Station Elevation Data    num=     234
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2634.95    1.34 2634.96     5.3 2634.95   44.15    2635   47.31 2635.01
   71.94 2635.14   88.73 2635.19  105.21 2635.23  106.49 2635.22  127.34 2635.26
  170.11 2635.33  228.05 2635.28  284.81 2635.11  302.05    2635  332.18 2634.77
  333.81 2634.76   335.7 2634.74  379.05  2634.4  381.97 2634.37   385.2 2634.33
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  390.46 2634.27  422.66    2634  441.28 2633.87  449.17 2633.77  461.72 2633.67
  466.76 2633.61  470.87 2633.55  475.31 2633.49  483.41 2633.38  496.63 2633.24
   513.4 2633.08  534.56 2632.91  545.85 2632.75  557.01 2632.59  576.25 2632.43
   583.4 2632.32  597.28 2632.16  605.56 2632.06  621.44 2631.92  632.25 2631.75
  653.36 2631.56  674.07 2631.38  683.52 2631.23  699.59  2631.1  708.03 2630.98
  718.98  2630.9  726.31 2630.81  732.83 2630.76  738.68 2630.73  759.83 2630.62
  790.22 2630.39  793.53  2630.4  831.18 2630.11  845.63    2630   868.5 2629.85
  868.93 2629.84  869.78 2629.83  901.05  2629.6  902.26 2629.58  903.07 2629.57
  930.18 2629.34  960.24 2629.14  961.75 2629.12  964.39 2629.09 1001.54 2628.94
 1004.65 2628.91 1035.39 2628.81  1037.7 2628.79  1049.1 2628.76 1050.97 2628.75
 1052.84 2628.74 1055.52 2628.73 1057.67 2628.72  1060.3  2628.7 1063.31 2628.68
 1065.76 2628.66 1069.76 2628.64 1081.35 2628.52 1104.45 2628.29 1127.49 2628.07
 1138.83 2627.94 1147.01  2627.8 1158.26  2627.6 1177.85  2627.4 1194.86 2627.26
  1214.1 2627.19 1286.84 2627.72 1344.02 2627.79 1370.36 2627.74 1384.02 2627.73
 1403.84  2627.7 1414.37 2627.68 1427.99 2627.69 1451.42 2627.67 1490.85 2627.62
  1529.6 2627.63 1557.61 2627.68 1608.46 2627.73  1626.1 2627.72 1637.85 2627.71
 1654.89 2627.75 1667.37 2627.77 1679.13 2627.79 1693.21 2627.81 1702.76 2627.84
 1713.19 2627.85 1724.19 2627.88 1737.05 2627.92 1752.84 2627.93 1767.04 2627.97
 1781.62 2627.98 1803.29 2628.01 1819.37 2628.04 1822.17 2628.05 1829.13 2628.07
 1842.57 2628.06 1855.88  2628.1 1869.57 2628.15 1884.87  2628.1  1893.9 2628.13
 1906.27  2628.1 1918.45 2628.08 1923.63 2628.09 1933.82 2628.07 1936.72 2628.08
 1967.31 2627.97 1997.03    2628 2009.05 2628.01 2059.34 2628.11 2107.17  2628.1
 2112.34 2628.09 2124.44 2628.07 2128.36 2628.06 2142.75 2628.03 2177.86 2627.96
 2216.97 2627.81 2230.44 2627.78 2246.22  2627.7 2256.18 2627.66 2266.71 2627.61
 2281.18 2627.55 2310.22 2627.46 2337.67 2627.41 2350.36  2627.4  2367.7 2627.35
 2403.69 2627.32 2408.86 2627.35 2424.16 2627.38 2439.14  2627.4 2447.17 2627.42
 2457.25 2627.45 2478.32 2627.49 2498.85 2627.52 2514.99 2627.51 2531.89 2627.53
 2544.77 2627.54  2564.6 2627.58 2594.27  2627.6 2610.26 2627.61 2622.53 2627.62
 2649.39 2627.61 2662.57 2627.59 2675.69 2627.61 2706.35 2627.57 2736.62 2627.58
 2789.36 2627.81 2854.67  2628.2 2865.32 2628.23 2875.55 2628.25 2902.47 2628.47
 2939.19 2628.44 2943.97 2628.43  2975.7 2628.76 2979.83  2628.8 3025.66 2629.38
 3047.22 2629.72 3068.13    2630 3082.43 2630.12 3158.68 2630.63 3220.68 2631.03
 3233.74 2631.09 3307.11 2631.27 3376.34 2631.31 3378.01 2631.32 3381.34 2631.31
 3385.03 2631.34 3395.03 2631.32 3398.71 2631.34 3402.45 2631.36 3412.62 2631.35
 3424.29 2631.45 3438.05 2631.59 3438.54  2631.6 3449.46 2631.61  3454.5 2631.66
 3465.09 2631.69 3466.92  2631.7 3468.65 2631.71 3473.65 2631.74 3477.47 2631.76
 3482.95 2631.79 3493.18 2631.87 3501.08 2631.89 3503.54 2631.91 3509.55 2631.92
 3515.68 2631.94 3522.32 2631.97 3532.02 2632.06 3538.76 2632.09 3539.72  2632.1
 3546.43 2632.12 3585.56 2632.47 3616.94 2632.69 3624.64 2632.71 3633.16 2632.73
 3641.75 2632.74 3642.59 2632.75 3650.95 2632.76 3684.71 2632.94 3714.13 2633.05
 3759.94 2633.12 3810.98 2633.42 3817.31 2633.46 3828.01 2633.52 3832.76 2633.54
  3835.5 2633.55 3847.42 2633.61 3858.07 2633.65 3868.81 2633.69 3871.87  2633.7
 3884.27 2633.73 3888.12 2633.75 3892.11 2633.76    3900 2633.77

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  1049.1     .05  2975.7      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1049.1  2975.7            547.56     500 1175.97             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2629.03    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.07    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2628.95    Reach Len. (ft)          547.56     500.00    1175.97
  Crit W.S. (ft)                      Flow Area (sq ft)          5.33    2200.45       1.63
  E.G. Slope (ft/ft)      0.004503    Area (sq ft)               5.33    2200.45       1.63
  Q Total (cfs)            4796.14    Flow (cfs)                 1.18    4794.60       0.35
  Top Width (ft)           1993.49    Top Width (ft)            50.70    1926.60      16.19
  Vel Total (ft/s)            2.17    Avg. Vel. (ft/s)           0.22       2.18       0.22
  Max Chl Dpth (ft)           1.76    Hydr. Depth (ft)           0.11       1.14       0.10
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Conv. Total (cfs)	71474.9	Conv. (cfs)	17.6	71452.0	5.3
Length Wtd. (ft)	565.47	Wetted Per. (ft)	50.70	1926.62	16.19
Min Ch El (ft)	2627.19	Shear (lb/sq ft)	0.03	0.32	0.03
Alpha	1.01	Stream Power (lb/ft s)	0.01	0.70	0.01
Frctn Loss (ft)	5.35	Cum Volume (acre-ft)	0.03	97.37	58.37
C & E Loss (ft)	0.02	Cum SA (acres)	0.32	83.20	64.87

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 12500

INPUT
Description:
Station Elevation Data num= 213

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2627.62	14.2	2627.39	69.8	2626.71	88.16	2626.75	107.84	2626.83
121.47	2626.98	133.18	2627.13	150.98	2627.02	158.25	2627.12	163.39	2627.18
185.88	2627.12	190.15	2627.15	229.91	2627.2	234.77	2627.17	249.72	2627.15
265.18	2627.08	273.11	2627.01	293.67	2626.95	305.58	2626.85	332.73	2626.77
344.25	2626.66	374.82	2626.53	382.58	2626.45	409.19	2626.31	424.1	2626.24
430.11	2626.16	437.03	2626.14	444.06	2626.12	460.04	2626.08	466.3	2626
520.36	2625.64	587.46	2625.03	588.09	2625.02	590.37	2625	595.13	2624.99
599.33	2624.98	613.64	2624.83	656.14	2624.47	662.26	2624.45	695.91	2624.22
729.36	2624.05	760.48	2623.93	769.92	2623.89	796.95	2623.83	805.47	2623.78
811.2	2623.75	812.87	2623.74	838.15	2623.67	852.19	2623.59	868.42	2623.46
883.96	2623.38	893.22	2623.32	928.65	2623.06	959.44	2622.88	970.64	2622.85
1009.79	2622.71	1046.33	2622.66	1059.67	2622.67	1077.93	2622.65	1110.47	2622.63
1124.44	2622.58	1139.1	2622.51	1155.7	2622.47	1171.1	2622.38	1181.63	2622.35
1199.74	2622.24	1205.78	2622.22	1209.96	2622.2	1227.19	2622.11	1231.99	2622.09
1236.71	2622.08	1244.03	2622.05	1252.86	2622.02	1262.73	2621.99	1272.38	2621.98
1286.32	2621.96	1294.97	2621.95	1304.65	2621.91	1324.91	2621.85	1344.39	2621.83
1352.86	2621.84	1367.41	2621.93	1418.31	2622.1	1453.06	2622.2	1464.26	2622.21
1482.49	2622.22	1491.66	2622.25	1523.83	2622.32	1555.03	2622.33	1576.81	2622.43
1595.61	2622.45	1614.73	2622.53	1623.51	2622.57	1642.2	2622.58	1644.07	2622.59
1645.93	2622.6	1660.78	2622.63	1674.87	2622.66	1695.15	2622.71	1717.82	2622.78
1742.26	2622.87	1768.44	2622.98	1788.27	2623.07	1789.65	2623.08	1810.07	2623.17
1824.92	2623.23	1901.21	2623.6	1957.88	2623.69	1961.7	2623.67	1965.74	2623.66
1994.86	2623.72	2023.64	2623.71	2040.62	2623.73	2057.16	2623.74	2063.04	2623.73
2090.94	2623.69	2106.62	2623.65	2123.33	2623.6	2146.6	2623.54	2174.5	2623.49
2201.77	2623.46	2225.14	2623.47	2248.69	2623.49	2252.24	2623.48	2275.92	2623.42
2302.24	2623.31	2328.47	2623.22	2344.81	2623.12	2359.1	2623.05	2370.63	2622.95
2414.32	2622.69	2451.58	2622.52	2463.63	2622.49	2474.64	2622.48	2483.58	2622.49
2496.24	2622.51	2509.18	2622.54	2520.47	2622.57	2530	2622.6	2604.93	2622.8
2675.4	2622.74	2681.63	2622.75	2687.91	2622.77	2696.3	2622.74	2710.6	2622.7
2722.7	2622.69	2740.2	2622.68	2754.69	2622.65	2763.92	2622.62	2795.82	2622.64
2807.8	2622.65	2816.22	2622.64	2862.3	2622.66	2876.76	2622.7	2890.18	2622.72
2904.89	2622.76	2929.1	2622.88	2955.66	2623.03	2962.93	2623.08	2975.32	2623.1
2980.61	2623.14	2990.99	2623.17	3001.23	2623.16	3031.49	2623.06	3067.02	2622.84
3069.79	2622.85	3077.06	2622.79	3088.42	2622.77	3090.79	2622.75	3154.55	2622.72
3224.7	2623.03	3242.56	2623.24	3252.42	2623.25	3281.03	2623.64	3318.16	2624.24
3322.16	2624.25	3362.43	2624.98	3363.51	2625	3416.61	2625.55	3451.83	2625.87
3479.45	2626.1	3499.5	2626.25	3513.9	2626.34	3515.01	2626.35	3523.06	2626.41
3524.1	2626.42	3539.22	2626.56	3553.39	2626.64	3577.12	2626.76	3604.16	2626.93
3614.57	2627.01	3615.86	2627.02	3626.86	2627.1	3637.28	2627.18	3638.52	2627.19

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 3648.67 2627.26 3656.92 2627.31 3666.51 2627.39 3669.97 2627.41 3678.47 2627.47
 3686.99 2627.51  3689.6 2627.53 3693.47 2627.56 3731.42 2627.91 3760.55 2628.13
 3763.64 2628.15 3773.19 2628.16 3804.49  2628.2 3836.92 2628.27 3847.31 2628.31
 3849.32 2628.32 3875.75 2628.41    3900 2628.51

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   811.2     .05  1961.7      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         811.2  1961.7           419.27     500  592.92             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2623.65    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.29    Wt. n-Val.                           0.050      0.100
  W.S. Elev (ft)           2623.36    Reach Len. (ft)          419.27     500.00     592.92
  Crit W.S. (ft)                      Flow Area (sq ft)                   820.01     529.23
  E.G. Slope (ft/ft)      0.031283    Area (sq ft)                        820.01     529.23
  Q Total (cfs)            4796.14    Flow (cfs)                         3867.60     928.54
  Top Width (ft)           1934.97    Top Width (ft)                      964.72     970.25
  Vel Total (ft/s)            3.55    Avg. Vel. (ft/s)                      4.72       1.75
  Max Chl Dpth (ft)           1.53    Hydr. Depth (ft)                      0.85       0.55
  Conv. Total (cfs)        27116.6    Conv. (cfs)                        21866.8     5249.8
  Length Wtd. (ft)          534.62    Wetted Per. (ft)                    964.73     970.26
  Min Ch El (ft)           2621.83    Shear (lb/sq ft)                      1.66       1.07
  Alpha                       1.47    Stream Power (lb/ft s)                7.83       1.87
  Frctn Loss (ft)             4.08    Cum Volume (acre-ft)                 80.04      51.21
  C & E Loss (ft)             0.08    Cum SA (acres)                       66.60      51.56


Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 12000

INPUT
Description:
Station Elevation Data    num=     189
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2623.71  150.23 2621.88  230.81 2621.02  234.67    2621  241.24 2620.97
  247.45 2620.95  268.36 2620.69  274.76 2620.66  304.65 2620.34  307.91 2620.32
  340.33    2620  353.66 2619.98  355.69 2619.97  368.41 2619.96  375.97 2619.95
  392.28 2619.93  401.99 2619.92  421.18  2619.9  434.73 2619.88  455.79 2619.86
     4562619.858  517.41 2619.34   549.8 2619.22  553.73  2619.2  570.76 2619.13
  583.73 2619.08  598.77 2619.02  628.49 2618.91  634.28  2618.9  667.31 2618.75
  673.22 2618.76   698.5 2618.61  721.94 2618.52   739.7 2618.44  747.39 2618.45
  762.93 2618.38   776.9 2618.39  790.89  2618.4  803.94 2618.41  817.15 2618.38
  876.84 2618.13  929.37 2617.97  942.84 2617.95   972.2 2617.86  982.69 2617.83
  989.97 2617.82  996.26  2617.8 1061.93 2617.67 1117.05 2617.63  1125.4 2617.67
 1133.82 2617.61 1149.49 2617.63 1157.65 2617.62 1224.72 2617.81  1306.4  2618.2
 1321.49  2618.3 1328.25 2618.31 1342.58 2618.39 1351.56 2618.42 1360.25 2618.44
 1376.55 2618.51 1385.98 2618.53 1406.21 2618.63 1427.65 2618.75 1448.85 2618.85
  1474.4 2618.89 1476.34  2618.9 1503.35 2618.87 1512.95 2618.83 1533.31 2618.93
 1540.84 2618.89  1544.2 2618.88 1544.77 2618.87 1565.92 2618.93 1584.88 2618.95
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  1589.4 2618.94  1602.7 2618.95 1611.65 2618.94 1619.13 2618.92  1630.4  2618.9
  1640.3 2618.87 1648.09 2618.84 1653.77 2618.81 1657.93 2618.79 1661.71 2618.78
 1685.44  2618.6 1707.18 2618.46  1714.3 2618.44 1772.32 2618.22 1825.35 2618.15
 1848.22 2618.07 1875.23 2617.81 1886.86 2617.75  1895.5 2617.71 1905.38 2617.65
 1915.76 2617.59 1931.46  2617.5 1936.63 2617.47 1952.69 2617.39 1957.45 2617.37
 1963.86 2617.38 1974.89 2617.41 1989.77 2617.43 2004.17 2617.42 2040.15 2617.44
 2050.96 2617.47 2082.71 2617.74 2108.78 2617.92 2123.81 2617.94 2132.74 2617.99
 2138.85 2618.02 2144.78 2618.05 2161.38 2618.11 2195.14 2618.16 2222.26 2618.15
 2231.76 2618.13 2234.65 2618.12 2248.18 2618.09 2256.13  2618.1 2268.12 2618.11
 2283.85 2618.02 2298.95 2617.99 2352.21 2617.95 2405.56 2617.99 2425.79 2618.06
 2441.36  2618.1 2458.22 2618.12 2473.63 2618.19 2485.51 2618.18 2542.76  2618.2
 2604.18 2618.05 2612.23 2618.04 2624.83 2617.97 2636.12 2617.94 2655.84 2617.91
 2657.45  2617.9 2667.32 2617.87 2686.85 2617.88 2693.93 2617.86 2707.44 2617.85
 2715.41 2617.83 2729.35  2617.8 2743.68 2617.78 2755.02 2617.75 2777.49 2617.68
 2825.66 2617.58 2848.28 2617.49 2879.51 2617.47 2920.51 2617.49 2944.63  2617.5
 2989.96 2617.54  3018.2 2617.59 3047.99 2617.68 3140.57 2618.45 3281.52 2619.96
 3291.59 2619.98 3298.91    2620 3302.54 2620.02  3311.2 2620.06 3314.21 2620.07
 3322.26 2620.08 3340.26 2620.18 3351.31 2620.24 3355.92 2620.25 3371.69 2620.34
 3378.21 2620.33  3384.9 2620.35 3391.93 2620.37 3414.41 2620.35  3517.3 2621.51
 3518.08 2621.52 3519.24 2621.53 3528.48 2621.59 3550.29 2621.78 3578.54 2622.06
 3587.15 2622.16 3593.94 2622.23 3594.97 2622.24 3596.93 2622.26 3598.56 2622.27
 3601.84 2622.29 3603.39 2622.31 3613.78 2622.45 3623.82 2622.51 3661.09 2622.97
 3687.58 2623.23 3718.52 2623.44 3743.84 2623.54    3800  2623.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     456     .05  1474.4      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           456  1474.4           263.01     300   678.8              .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2619.49    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.04    Wt. n-Val.                            0.050      0.100
  W.S. Elev (ft)           2619.46    Reach Len. (ft)           263.01     300.00     678.80
  Crit W.S. (ft)                      Flow Area (sq ft)                   1128.28    2456.91
  E.G. Slope (ft/ft)      0.003367    Area (sq ft)                        1128.28    2456.91
  Q Total (cfs)            4796.14    Flow (cfs)                          2150.40    2645.74
  Top Width (ft)           2731.45    Top Width (ft)                       971.09    1760.36
  Vel Total (ft/s)            1.34    Avg. Vel. (ft/s)                       1.91       1.08
  Max Chl Dpth (ft)           2.09    Hydr. Depth (ft)                       1.16       1.40
  Conv. Total (cfs)        82651.4    Conv. (cfs)                         37057.6    45593.8
  Length Wtd. (ft)          404.57    Wetted Per. (ft)                     971.10    1760.38
  Min Ch El (ft)           2617.61    Shear (lb/sq ft)                       0.24       0.29
  Alpha                       1.27    Stream Power (lb/ft s)                 0.47       0.32
  Frctn Loss (ft)             2.41    Cum Volume (acre-ft)                  68.86      30.88
  C & E Loss (ft)             0.01    Cum SA (acres)                        55.49      32.97


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 11700

INPUT
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Description:
Station Elevation Data num= 183

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2619.98	50.72	2620	77.85	2620.04	81.66	2620.03	85.92	2620.04
90.87	2620.05	96.21	2620.03	102.8	2620	105.27	2619.98	105.48	2619.97
116.31	2619.81	118.28	2619.79	120.65	2619.77	123.6	2619.76	127.37	2619.71
262.8	2618.14	379.22	2616.8	444.48	2616.22	453.82	2616.18	473.61	2616.07
478.05	2616.05	481.42	2616.03	485.32	2616.02	492.96	2615.98	514.75	2615.94
522.82	2615.9	542.63	2615.89	548.73	2615.86	567.73	2615.83	571.98	2615.81
592.93	2615.82	596.65	2615.8	670.56	2615.81	741.16	2615.72	754.08	2615.66
765.27	2615.62	794.74	2615.56	826.38	2615.55	859.57	2615.34	861.71	2615.33
877.82	2615.31	884.47	2615.3	890.62	2615.29	907.24	2615.35	924.03	2615.24
941.91	2615.22	947.37	2615.23	953.87	2615.26	973.43	2615.3	974.7	2615.31
1000.29	2615.37	1025.22	2615.43	1027.21	2615.44	1055.54	2615.5	1058.34	2615.51
1061.29	2615.53	1064.19	2615.54	1169.31	2615.66	1189.65	2615.63	1283.54	2615.92
1325.43	2615.97	1369.78	2615.96	1375.33	2616	1380.56	2616.03	1383.26	2616.04
1398.63	2616.09	1402.59	2616.11	1436.8	2616.22	1439.22	2616.23	1478.41	2616.33
1509.88	2616.39	1532.93	2616.4	1560.12	2616.39	1570.03	2616.4	1577.97	2616.37
1585.66	2616.36	1600.99	2616.38	1623.9	2616.4	1648.27	2616.47	1691.85	2616.53
1737.6	2616.3	1755.65	2616.28	1759.42	2616.29	1774.02	2616.28	1788.72	2616.26
1795.76	2616.25	1816.27	2616.26	1822.12	2616.28	1830.02	2616.29	1847.21	2616.28
1856.8	2616.29	1862.56	2616.31	1908.88	2616.71	1946.85	2616.98	1957.03	2616.99
1970.09	2617.06	1979.04	2617.1	1987.71	2617.15	1998	2617.18	2011.98	2617.24
2051.11	2617.31	2077.07	2617.32	2090.7	2617.3	2104.56	2617.27	2108.77	2617.26
2121.79	2617.24	2133.29	2617.25	2150.63	2617.26	2162.07	2617.2	2173.06	2617.17
2211.86	2617.15	2250.77	2617.18	2265.54	2617.23	2287.78	2617.28	2300.23	2617.3
2322.39	2617.39	2413.44	2617.41	2455.98	2617.31	2498.7	2617.29	2520.64	2617.23
2542.9	2617.24	2557.99	2617.19	2582.27	2617.16	2603.07	2617.13	2621.56	2617.09
2640.61	2617.06	2649.02	2617.04	2660.7	2617.03	2670.8	2616.98	2682.41	2616.99
2701.97	2616.97	2719.93	2616.9	2736.61	2616.83	2759.6	2616.81	2789.71	2616.83
2859.39	2616.87	2880.21	2616.91	2902.12	2616.97	2969.92	2617.53	3107.54	2619
3108.16	2619.01	3126.35	2619.26	3132.65	2619.31	3133.86	2619.32	3146.81	2619.39
3157.86	2619.42	3158.64	2619.43	3159.4	2619.45	3168.34	2619.55	3176.9	2619.66
3180.99	2619.7	3184.42	2619.71	3200.92	2619.86	3215.45	2620	3224.02	2620.02
3233.33	2620.03	3235.59	2620.04	3243.14	2620.05	3250.33	2620.07	3265.55	2620.12
3278.71	2620.09	3287.15	2620.08	3294.38	2620.09	3316.73	2620.1	3322.83	2620.09
3350.12	2620.4	3351.15	2620.41	3363.61	2620.49	3370.25	2620.54	3378.8	2620.63
3381.4	2620.66	3391.68	2620.75	3392.89	2620.76	3395.55	2620.79	3396.12	2620.8
3397.26	2620.81	3399.62	2620.84	3415.57	2621.04	3419.81	2621.07	3478.18	2621.79
3519.87	2622.19	3568.49	2622.51	3600	2622.64				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	262.8	.05	1998	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.8	1998	231.97	200	608.49	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2617.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.17	Wt. n-Val.		0.050	0.100
W.S. Elev (ft)	2616.90	Reach Len. (ft)	231.97	200.00	608.49
Crit W.S. (ft)		Flow Area (sq ft)		1464.86	8.75
E.G. Slope (ft/ft)	0.013249	Area (sq ft)		1464.86	8.75
Q Total (cfs)	4796.14	Flow (cfs)		4793.95	2.19
Top Width (ft)	1721.56	Top Width (ft)		1565.38	156.19
Vel Total (ft/s)	3.25	Avg. Vel. (ft/s)		3.27	0.25
Max Chl Dpth (ft)	1.68	Hydr. Depth (ft)		0.94	0.06
Conv. Total (cfs)	41667.8	Conv. (cfs)		41648.7	19.0
Length Wtd. (ft)	201.59	Wetted Per. (ft)		1565.39	156.19
Min Ch El (ft)	2615.22	Shear (lb/sq ft)		0.77	0.05

Alpha	1.01	Stream Power (lb/ft s)	2.53	0.01
Frctn Loss (ft)	1.45	Cum Volume (acre-ft)	59.93	11.67
C & E Loss (ft)	0.02	Cum SA (acres)	46.76	18.04

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 11500

INPUT
Description:
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2616.5	18.09	2616.31	43.16	2615.94	57.65	2615.76	58.19	2615.75
77	2615.57	97.01	2615.37	131.92	2615	138.81	2614.92	166.28	2614.55
186.83	2614.28	204.87	2614.07	223.37	2613.88	242.46	2613.72	259.76	2613.57
311.24	2613.26	355.57	2613.12	382.65	2613.11	387.56	2613.15	391.35	2613.18
419.4	2613.17	421.07	2613.18	442.92	2613.22	444.33	2613.24	453.49	2613.23
454.52	2613.24	462.83	2613.2	552.58	2613.63	645.09	2613.5	675.02	2613.31
693.66	2613.25	714.22	2613.28	722.49	2613.25	742.28	2613.27	814	2613.56
904.84	2614.15	908.59	2614.14	929.48	2614.31	932.63	2614.3	936.07	2614.29
955.03	2614.44	969.27	2614.51	971.75	2614.52	974.08	2614.51	989.58	2614.56
1008.28	2614.63	1032.85	2614.69	1063.17	2614.73	1100.83	2614.75	1102.28	2614.76
1145.49	2614.78	1146.74	2614.79	1152.27	2614.8	1157.66	2614.79	1192.6	2614.81
1210.73	2614.84	1229.14	2614.89	1229.34	2614.88	1256.5	2614.98	1261.02	2615
1269.22	2615.03	1321.23	2615.19	1362.62	2615.28	1392.75	2615.3	1413.51	2615.31
1440.95	2615.32	1444.56	2615.31	1464.25	2615.36	1476.59	2615.38	1533.99	2615.49
1593.63	2615.2	1655.35	2615.19	1656.38	2615.18	1668.26	2615.19	1734.38	2615.7
1783.83	2616.05	1789.25	2616.06	1806.33	2616.15	1818.02	2616.21	1829.37	2616.26
1861.13	2616.38	1905.51	2616.47	1939.54	2616.48	1957.43	2616.46	1975.63	2616.42
1981.15	2616.41	1989.55	2616.4	1993.66	2616.39	2008.72	2616.4	2031.41	2616.42
2038.59	2616.38	2045.49	2616.36	2069.82	2616.35	2094.19	2616.37	2103.43	2616.4
2132.37	2616.46	2140.32	2616.47	2169.29	2616.59	2282.63	2616.61	2318.39	2616.53
2393.02	2616.5	2417.68	2616.42	2431.85	2616.43	2451.31	2616.37	2472.72	2616.33
2492.65	2616.3	2516.46	2616.25	2540.96	2616.21	2545.9	2616.2	2566.77	2616.17
2606.23	2616.16	2616.76	2616.12	2626.56	2616.08	2640.09	2616.07	2657.86	2616.08
2701.89	2616.09	2727.98	2616.14	2740.65	2616.16	2754.01	2616.2	2795.55	2616.55
2880.72	2617.46	2881.1	2617.47	2892.44	2617.62	2913.02	2617.77	2913.81	2617.78
2956.62	2618.01	2992.92	2618.12	2993.47	2618.13	2994.55	2618.14	3000.36	2618.21
3006.43	2618.29	3009.34	2618.32	3028.7	2618.38	3047.28	2618.39	3056.79	2618.49
3067.27	2618.59	3078.47	2618.68	3086.58	2618.71	3097.59	2618.79	3109.19	2618.86
3121.21	2618.94	3128.32	2618.99	3188.08	2619.62	3207.11	2619.89	3208.06	2619.9
3213.28	2619.91	3218.52	2619.93	3223.29	2619.95	3227.67	2619.96	3239.41	2620
3245.03	2620.02	3246.24	2620.03	3298.79	2620.67	3355.29	2621.22	3355.41	2621.23
3420.73	2621.66	3474.75	2621.88	3500	2621.95				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	77	.05	1256.5	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
77	1256.5	249.6	500	450.21	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2615.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.11	Wt. n-Val.		0.050	0.100
W.S. Elev (ft)	2615.49	Reach Len. (ft)	249.60	500.00	450.21
Crit W.S. (ft)	2614.61	Flow Area (sq ft)		1795.65	97.52
E.G. Slope (ft/ft)	0.004506	Area (sq ft)		1795.65	97.52
Q Total (cfs)	4796.14	Flow (cfs)		4761.10	35.04
Top Width (ft)	1622.88	Top Width (ft)		1171.80	451.07
Vel Total (ft/s)	2.53	Avg. Vel. (ft/s)		2.65	0.36
Max Chl Dpth (ft)	2.38	Hydr. Depth (ft)		1.53	0.22
Conv. Total (cfs)	71450.4	Conv. (cfs)		70928.4	522.0
Length Wtd. (ft)	496.17	Wetted Per. (ft)		1171.82	451.07
Min Ch El (ft)	2613.11	Shear (lb/sq ft)		0.43	0.06
Alpha	1.09	Stream Power (lb/ft s)		1.14	0.02
Frctn Loss (ft)	4.20	Cum Volume (acre-ft)		52.44	10.93
C & E Loss (ft)	0.01	Cum SA (acres)		40.47	13.80

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 11000

INPUT
Description:
Station Elevation Data num= 122

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2611.64	3.5	2611.57	15.57	2611.36	41.8	2610.93	50.99	2610.8
53.59	2610.77	59.92	2610.67	62.58	2610.65	66.86	2610.58	69.9	2610.54
72.45	2610.5	74.97	2610.47	77.36	2610.46	79.76	2610.44	81.92	2610.41
84.04	2610.42	90.05	2610.36	94.83	2610.33	97.56	2610.32	99.88	2610.33
109.17	2610.38	118.26	2610.43	121.81	2610.42	125.76	2610.44	127.89	2610.43
140.01	2610.5	143.36	2610.52	144.72	2610.51	147.17	2610.54	148.45	2610.53
385.13	2611.11	616.4	2610.63	705.19	2610.02	709.42	2610.01	718.13	2610
725.91	2609.99	824.73	2609.71	847.08	2609.83	865.41	2609.81	899.88	2609.8
923.4	2609.78	945.71	2609.79	950.97	2609.8	998.68	2609.89	1028.74	2609.93
1035.95	2609.94	1047.77	2609.95	1079.7	2610	1095.35	2610.04	1114.33	2610.08
1140.09	2610.14	1148.76	2610.16	1164	2610.18	1177.61	2610.17	1185.31	2610.16
1195.44	2610.14	1217.57	2610.11	1263.92	2610.05	1271.73	2610.04	1297.49	2610
1323	2609.96	1336.81	2609.94	1347.57	2609.93	1392.35	2609.85	1415.8	2609.86
1459.14	2609.87	1470.93	2609.89	1477.79	2609.88	1483.94	2609.9	1489.73	2609.91
1500.75	2609.95	1521.22	2610	1542.71	2610.23	1569.68	2610.52	1576.3	2610.55
1607.26	2610.89	1759.61	2612.02	1852.54	2612.49	1870.35	2612.5	1919.02	2612.59
1936.81	2612.58	1950.58	2612.56	1961.42	2612.54	1986.2	2612.58	2031.6	2612.61
2110.21	2612.95	2225.12	2613.82	2240.45	2614	2247.93	2614.03	2252.78	2614.04
2264.59	2614.18	2267.67	2614.19	2285.1	2614.41	2287.81	2614.42	2308.64	2614.66
2310.96	2614.67	2330	2614.86	2343.88	2615	2361.47	2615.01	2397.35	2615.04
2440.74	2615.02	2448	2615.01	2458.87	2615	2467.88	2614.96	2687.64	2613.82
2850.55	2613.68	2858.89	2613.69	2865.23	2613.71	2885.34	2613.73	2944.49	2613.83
3007.85	2614	3013.45	2614.02	3019.86	2614.05	3025.8	2614.08	3030.08	2614.09
3137.05	2614.38	3264.24	2614.87	3266.3	2614.88	3267.66	2614.89	3271.23	2614.9
3272.43	2614.91	3500	2617.28						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	3.5	.05	1323	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3.5	1323	734.24	500	657.7	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2611.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.		0.050	0.100
W.S. Elev (ft)	2611.18	Reach Len. (ft)	734.24	500.00	657.70
Crit W.S. (ft)		Flow Area (sq ft)		1070.33	323.49
E.G. Slope (ft/ft)	0.021385	Area (sq ft)		1070.33	323.49
Q Total (cfs)	4796.14	Flow (cfs)		4093.37	702.77
Top Width (ft)	1620.14	Top Width (ft)		1296.55	323.59
Vel Total (ft/s)	3.44	Avg. Vel. (ft/s)		3.82	2.17
Max Chl Dpth (ft)	1.47	Hydr. Depth (ft)		0.83	1.00
Conv. Total (cfs)	32797.5	Conv. (cfs)		27991.7	4805.8
Length Wtd. (ft)	516.07	Wetted Per. (ft)		1296.56	323.60
Min Ch El (ft)	2609.71	Shear (lb/sq ft)		1.10	1.33
Alpha	1.11	Stream Power (lb/ft s)		4.21	2.90
Frctn Loss (ft)	2.80	Cum Volume (acre-ft)		35.99	8.75
C & E Loss (ft)	0.04	Cum SA (acres)		26.31	9.80

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Primary
REACH: Primary RS: 10500

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2609.91	1.43	2609.64	1.87	2609.68	2.15	2609.72	2.35	2609.75
2.57	2609.76	2.77	2609.78	3.2	2609.72	7.36	2609.12	9.08	2609.19
10.55	2609.24	11.59	2609.26	12.58	2609.28	13.35	2609.31	13.97	2609.39
14.54	2609.36	15.56	2609.38	80.41	2606.83	99.93	2606.32	104.18	2606.35
109.71	2606.27	115.32	2606.19	121.09	2606.12	126.21	2606.16	131.48	2606.19
136.65	2606.23	141.5	2606.26	147.38	2606.2	152.06	2606.23	156.31	2606.18
162.28	2606.22	213.39	2606.09	259.67	2606.1	272.88	2606.16	289.39	2606.24
306.5	2606.3	325.16	2606.38	341.29	2606.45	351.89	2606.49	368.74	2606.56
375.73	2606.59	381.22	2606.62	490.53	2606.74	528.81	2606.95	674.67	2607.44
694.2	2607.62	707.54	2607.61	730.37	2607.78	752.11	2607.91	766.69	2607.98
785.8	2608.11	806.71	2608.26	815.95	2608.32	881.16	2608.37	963.61	2607.88
972.73	2607.66	981.88	2607.44	995.56	2607.16	1020.26	2606.73	1052.05	2606.2
1077.83	2605.77	1097.36	2605.45	1107.69	2605.29	1114.03	2605.24	1114.59	2605.23
1126.07	2605.21	1126.66	2605.19	1126.94	2605.18	1134.29	2605.26	1145.71	2605.21
1156.89	2605.25	1159.32	2605.29	1162.3	2605.32	1173.55	2605.46	1375.5	2607.37
1433.6	2607.68	1469.99	2607.88	1484.05	2607.83	1503.88	2607.73	1525.87	2607.59
1528.2	2607.58	1545.61	2607.55	1566.17	2607.4	1568.99	2607.41	1583.11	2607.53
1596.82	2607.49	1644.04	2607.33	1687.56	2607.29	1700.12	2607.3	1713.62	2607.31
1732.38	2607.36	1751.99	2607.42	1765.72	2607.45	1782.44	2607.52	1794.61	2607.58
1824.69	2607.76	1859.85	2608.01	1874.35	2608.07	1901.06	2608.32	1917.63	2608.48
1925.78	2608.56	1937.34	2608.63	1945.14	2608.69	1963.6	2608.82	1972.23	2608.89
1984.17	2608.96	1994.8	2609.01	2027.72	2609.25	2073.11	2609.57	2114.63	2609.89
2115.36	2609.9	2129.31	2610	2137.96	2610.02	2143.52	2610.03	2191.62	2610.26
2259.21	2610.43	2285.74	2610.42	2302.11	2610.39	2319.5	2610.36	2348.79	2610.33

```
 2378.07 2610.32 2379.76 2610.31 2397.05 2610.32 2413.94 2610.35 2443.07 2610.39
 2478.69 2610.44 2481.15 2610.41 2514.62 2610.45 2534.33 2610.36 2550.66 2610.37
 2581.12 2610.42 2604.01 2610.53 2615.93 2610.56 2625.87 2610.59 2652.27 2610.74
 2682.02  2610.9 2709.17 2611.04 2728.52 2611.13 2760.57 2611.25 2801.13 2611.44
 2817.45 2611.52 2862.86 2611.77 2902.47 2611.97 2935.48 2612.09 2966.06 2612.19
 2985.31 2612.25 3001.25 2612.34 3011.86 2612.43 3022.81 2612.53 3032.99 2612.61
 3040.68 2612.68    3200 2614.42

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     3.2     .05  1433.6      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           3.2  1433.6           750.27     500  664.14              .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2608.55    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.06    Wt. n-Val.                           0.050      0.100
  W.S. Elev (ft)           2608.49    Reach Len. (ft)           750.27     500.00     664.14
  Crit W.S. (ft)                      Flow Area (sq ft)                   2247.70     415.98
  E.G. Slope (ft/ft)      0.002426    Area (sq ft)                        2247.70     415.98
  Q Total (cfs)            4796.14    Flow (cfs)                          4521.15     274.99
  Top Width (ft)           1879.87    Top Width (ft)                      1395.29     484.58
  Vel Total (ft/s)            1.80    Avg. Vel. (ft/s)                       2.01       0.66
  Max Chl Dpth (ft)           3.31    Hydr. Depth (ft)                       1.61       0.86
  Conv. Total (cfs)        97373.2    Conv. (cfs)                         91790.2     5582.9
  Length Wtd. (ft)          504.71    Wetted Per. (ft)                    1395.38     484.58
  Min Ch El (ft)           2605.18    Shear (lb/sq ft)                       0.24       0.13
  Alpha                       1.18    Stream Power (lb/ft s)                 0.49       0.09
  Frctn Loss (ft)             3.03    Cum Volume (acre-ft)                  16.95       3.17
  C & E Loss (ft)             0.07    Cum SA (acres)                        10.86       3.69


Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Primary
REACH: Primary            RS: 10000

INPUT
Description:
Station Elevation Data    num=     107
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  2605.5     8.7 2605.48   12.23 2605.47   17.81 2605.42   21.47  2605.4
   25.58 2605.35   28.86 2605.34   31.73  2605.3   35.02 2605.26   37.13 2605.24
   40.71 2605.19   44.86 2605.16   47.73 2605.13      55 2605.12   56.45 2605.11
   57.73 2605.08   59.03 2605.09   60.89 2605.07   61.96 2605.05   66.74    2605
   71.13 2604.97   71.81 2604.96   77.31 2604.92  102.28 2603.78  126.16 2602.92
  134.86 2602.69  197.71 2602.11  249.58  2602.2  254.12 2602.26  257.45 2602.29
  267.93 2602.39  288.49  2602.6  297.96 2602.73  302.64  2602.8  327.56 2603.02
  334.83 2603.13     339  2603.2  342.65 2603.26  347.48 2603.33  351.92  2603.4
  356.21 2603.46  373.95 2603.55  386.02 2603.56  394.66 2603.54  402.32 2603.61
  425.97 2603.73  564.26 2604.63  604.69 2604.94  616.95 2604.96   624.3 2604.98
  634.45    2605  644.09 2605.02  674.07 2605.05  692.79 2605.03  704.44    2605
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   710.5 2604.99  780.37 2604.92  788.13 2604.91   855.9 2604.98  878.49    2605
  882.65 2605.01     900 2605.02  940.88 2605.07   965.4 2605.06  984.63 2605.07
 1000.61 2605.08 1049.44 2605.12 1107.85 2605.18  1172.8  2605.1  1214.9 2605.06
 1234.24 2605.05 1274.39 2605.04 1278.93 2605.01 1281.62    2605 1835.19 2605.05
 1888.54 2605.34 1889.84 2605.35 1969.65 2605.46 2048.44 2605.41 2049.34 2605.42
 2064.74 2605.34  2081.6 2605.37 2099.44 2605.45 2102.52 2605.44 2107.75 2605.43
 2113.95 2605.44 2125.43 2605.47 2134.51  2605.5 2142.54 2605.55 2152.49 2605.62
 2154.29 2605.63 2158.01 2605.65 2163.64 2605.68 2170.69 2605.72  2178.1 2605.76
 2184.73  2605.8 2288.16 2606.45 2825.79 2609.98 2834.49    2610 2836.26 2610.01
 2856.23 2610.23 2864.05 2610.27 2874.76 2610.33 2877.16 2610.34 2878.29 2610.35
 2890.56 2610.43    2900  2610.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     8.7     .05   710.5      .1

Bank Sta: Left   Right    Coeff Contr.   Expan.
           8.7   710.5             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2605.45    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.72    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2604.74    Reach Len. (ft)
  Crit W.S. (ft)           2604.74    Flow Area (sq ft)                    705.98
  E.G. Slope (ft/ft)      0.032695    Area (sq ft)                         705.98
  Q Total (cfs)            4796.14    Flow (cfs)                          4796.14
  Top Width (ft)            496.59    Top Width (ft)                       496.59
  Vel Total (ft/s)            6.79    Avg. Vel. (ft/s)                       6.79
  Max Chl Dpth (ft)           2.62    Hydr. Depth (ft)                       1.42
  Conv. Total (cfs)        26524.7    Conv. (cfs)                         26524.7
  Length Wtd. (ft)                    Wetted Per. (ft)                     496.64
  Min Ch El (ft)           2602.11    Shear (lb/sq ft)                       2.90
  Alpha                       1.00    Stream Power (lb/ft s)                19.71
  Frctn Loss (ft)                     Cum Volume (acre-ft)
  C & E Loss (ft)                     Cum SA (acres)



SUMMARY OF MANNING'S N VALUES

River:Primary

      Reach          River Sta.       n1        n2        n3

 Primary              22000              .1       .05        .1
 Primary              21500              .1       .05        .1
 Primary              21000              .1       .05        .1
 Primary              20500              .1       .05        .1
 Primary              20000              .1       .05        .1
 Primary              19500              .1       .05        .1
 Primary              19000              .1       .05        .1
 Primary              18500              .1       .05        .1
 Primary              18000              .1       .05        .1
 Primary              17500              .1       .05        .1
 Primary              17000              .1       .05        .1
 Primary              16500              .1       .05        .1
 Primary              16000              .1       .05        .1
 Primary              15500              .1       .05        .1
 Primary              15000              .1       .05        .1
 Primary              14500              .1       .05        .1
```

Primary	14000	.1	.05	.1
Primary	13500	.1	.05	.1
Primary	13000	.1	.05	.1
Primary	12500	.1	.05	.1
Primary	12000	.1	.05	.1
Primary	11700	.1	.05	.1
Primary	11500	.1	.05	.1
Primary	11000	.1	.05	.1
Primary	10500	.1	.05	.1
Primary	10000	.1	.05	.1

SUMMARY OF REACH LENGTHS

River: Primary

Reach	River Sta.	Left	Channel	Right
Primary	22000	518.55	500	568.87
Primary	21500	424.89	500	341.32
Primary	21000	432.44	500	658.41
Primary	20500	905.88	500	269.85
Primary	20000	547.79	500	549.68
Primary	19500	331.76	500	347.76
Primary	19000	591.75	500	330.93
Primary	18500	674.34	500	556.28
Primary	18000	470.81	500	445.18
Primary	17500	993.6	500	491.94
Primary	17000	772.51	500	508.83
Primary	16500	427.6	500	369.1
Primary	16000	728.34	500	600.53
Primary	15500	405.27	500	516.58
Primary	15000	381.79	500	424.41
Primary	14500	366.41	500	368.01
Primary	14000	652.43	500	602.05
Primary	13500	692.56	500	324.43
Primary	13000	547.56	500	1175.97
Primary	12500	419.27	500	592.92
Primary	12000	263.01	300	678.8
Primary	11700	231.97	200	608.49
Primary	11500	249.6	500	450.21
Primary	11000	734.24	500	657.7
Primary	10500	750.27	500	664.14
Primary	10000			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Primary

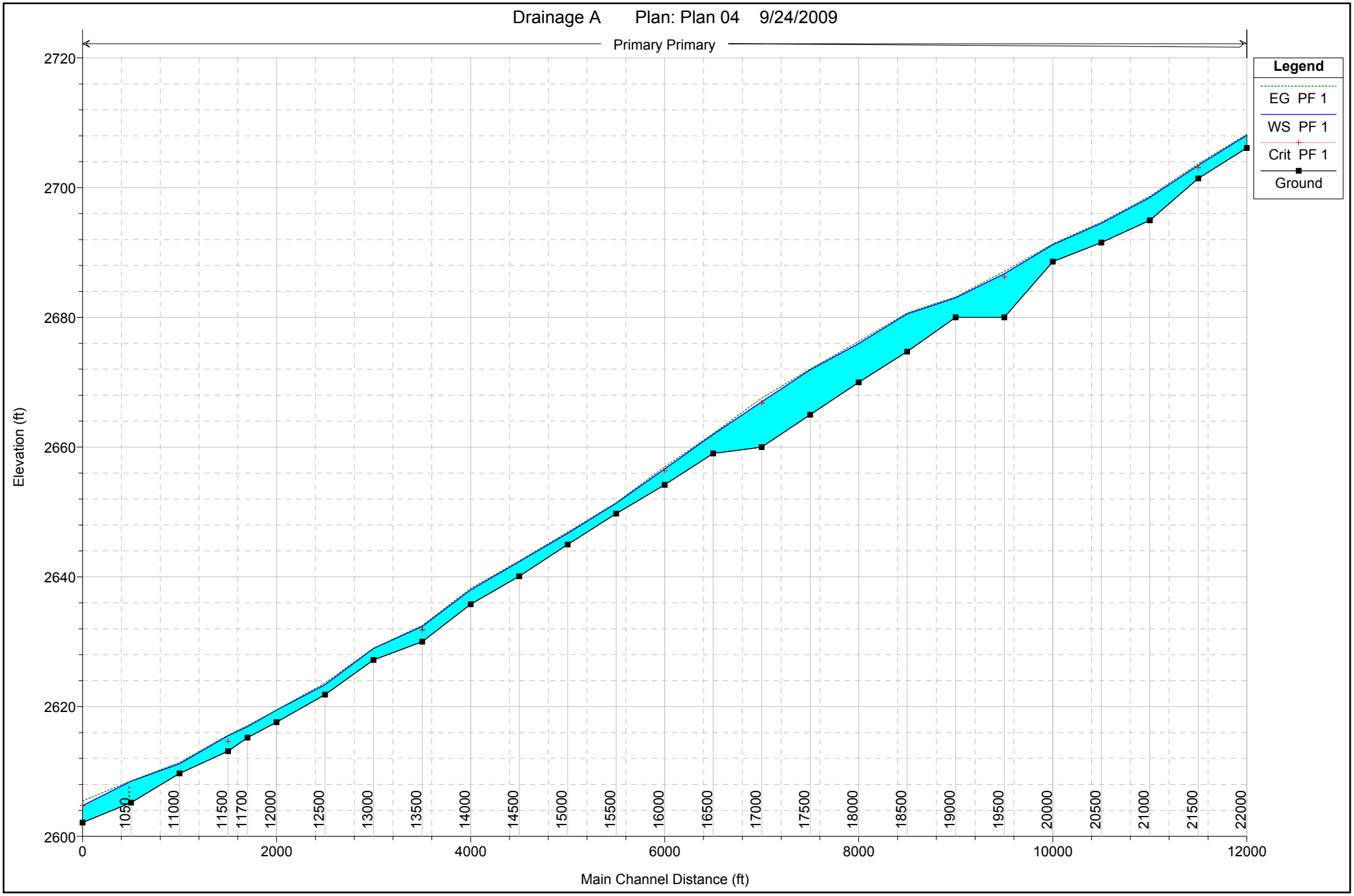
Reach	River Sta.	Contr.	Expan.
Primary	22000	.1	.3
Primary	21500	.1	.3
Primary	21000	.1	.3
Primary	20500	.1	.3
Primary	20000	.1	.3
Primary	19500	.1	.3

Primary	19000	.1	.3
Primary	18500	.1	.3
Primary	18000	.1	.3
Primary	17500	.1	.3
Primary	17000	.1	.3
Primary	16500	.1	.3
Primary	16000	.1	.3
Primary	15500	.1	.3
Primary	15000	.1	.3
Primary	14500	.1	.3
Primary	14000	.1	.3
Primary	13500	.1	.3
Primary	13000	.1	.3
Primary	12500	.1	.3
Primary	12000	.1	.3
Primary	11700	.1	.3
Primary	11500	.1	.3
Primary	11000	.1	.3
Primary	10500	.1	.3
Primary	10000	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Primary	22000	PF 1	4796.14	2706.12	2708.09		2708.22	0.006359	2.89	1661.01	1234.98	0.44
Primary	21500	PF 1	4796.14	2701.43	2703.43	2703.09	2703.70	0.013869	4.11	1203.52	1128.21	0.64
Primary	21000	PF 1	4796.14	2694.95	2698.50		2698.69	0.007514	3.54	1356.46	843.55	0.49
Primary	20500	PF 1	4796.14	2691.52	2694.49		2694.72	0.008402	3.81	1260.19	763.05	0.52
Primary	20000	PF 1	4796.14	2688.60	2691.21		2691.33	0.005488	2.69	1781.79	1317.68	0.41
Primary	19500	PF 1	4796.14	2680.00	2686.73	2686.25	2687.08	0.014558	4.77	1005.64	654.23	0.68
Primary	19000	PF 1	4796.14	2680.00	2683.02		2683.18	0.004750	3.24	1482.24	746.48	0.40
Primary	18500	PF 1	4796.14	2674.73	2680.55		2680.68	0.005234	2.91	1647.88	1046.16	0.41
Primary	18000	PF 1	4796.14	2670.00	2675.95		2676.28	0.017567	4.62	1037.47	815.18	0.72
Primary	17500	PF 1	4796.14	2664.98	2671.93		2672.04	0.004866	2.71	1771.01	1185.31	0.39
Primary	17000	PF 1	4796.14	2660.00	2666.99	2666.84	2667.53	0.020618	5.99	898.21	783.12	0.82
Primary	16500	PF 1	4796.14	2659.02	2661.94		2662.09	0.006394	3.07	1567.49	1122.27	0.45
Primary	16000	PF 1	4796.14	2654.19	2656.62	2656.36	2656.98	0.018752	4.76	1008.41	798.12	0.75
Primary	15500	PF 1	4796.14	2649.74	2651.34		2651.46	0.007123	2.86	1679.63	1382.67	0.46
Primary	15000	PF 1	4796.14	2644.99	2646.73		2646.92	0.011953	3.54	1357.29	1213.35	0.58
Primary	14500	PF 1	4796.14	2640.09	2642.34		2642.48	0.006844	3.01	1614.92	1294.65	0.46

Primary	14000	PF 1	4796.14	2635.79	2638.01		2638.23	0.010857	3.76	1275.23	952.65	0.57
Primary	13500	PF 1	4796.14	2630.01	2632.34	2631.81	2632.52	0.012000	3.34	1436.22	1382.39	0.58
Primary	13000	PF 1	4796.14	2627.19	2628.95		2629.03	0.004503	2.18	2207.42	1993.49	0.36
Primary	12500	PF 1	4796.14	2621.83	2623.36		2623.65	0.031283	4.72	1349.24	1934.97	0.90
Primary	12000	PF 1	4796.14	2617.61	2619.46		2619.49	0.003367	1.91	3585.18	2731.45	0.31
Primary	11700	PF 1	4796.14	2615.22	2616.90		2617.07	0.013249	3.27	1473.61	1721.56	0.60
Primary	11500	PF 1	4796.14	2613.11	2615.49	2614.61	2615.60	0.004506	2.65	1893.18	1622.88	0.38
Primary	11000	PF 1	4796.14	2609.71	2611.18		2611.39	0.021385	3.82	1393.82	1620.14	0.74
Primary	10500	PF 1	4796.14	2605.18	2608.49		2608.55	0.002426	2.01	2663.68	1879.87	0.28
Primary	10000	PF 1	4796.14	2602.11	2604.74	2604.74	2605.45	0.032695	6.79	705.98	496.59	1.00


Drainage A Plan: Plan 04 9/24/2009
Primary Primary
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
2720
2700
2680
2660
2640
2620
2600
0
2000
4000
6000
8000
10000
12000
Main Channel Distance (ft)
10500
11000
11500
11700
12000
12500
13000
13500
14000
14500
15000
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20000
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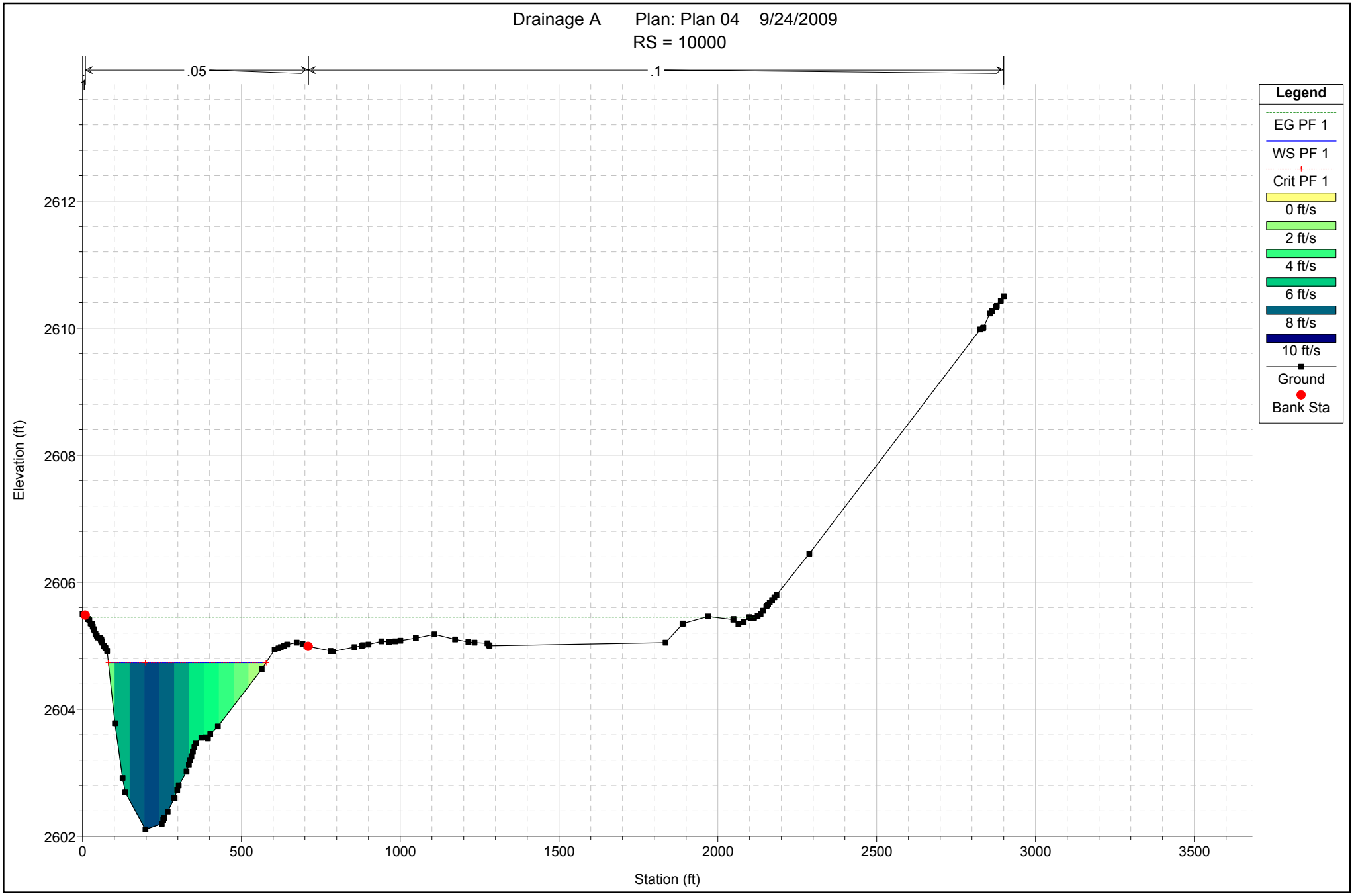
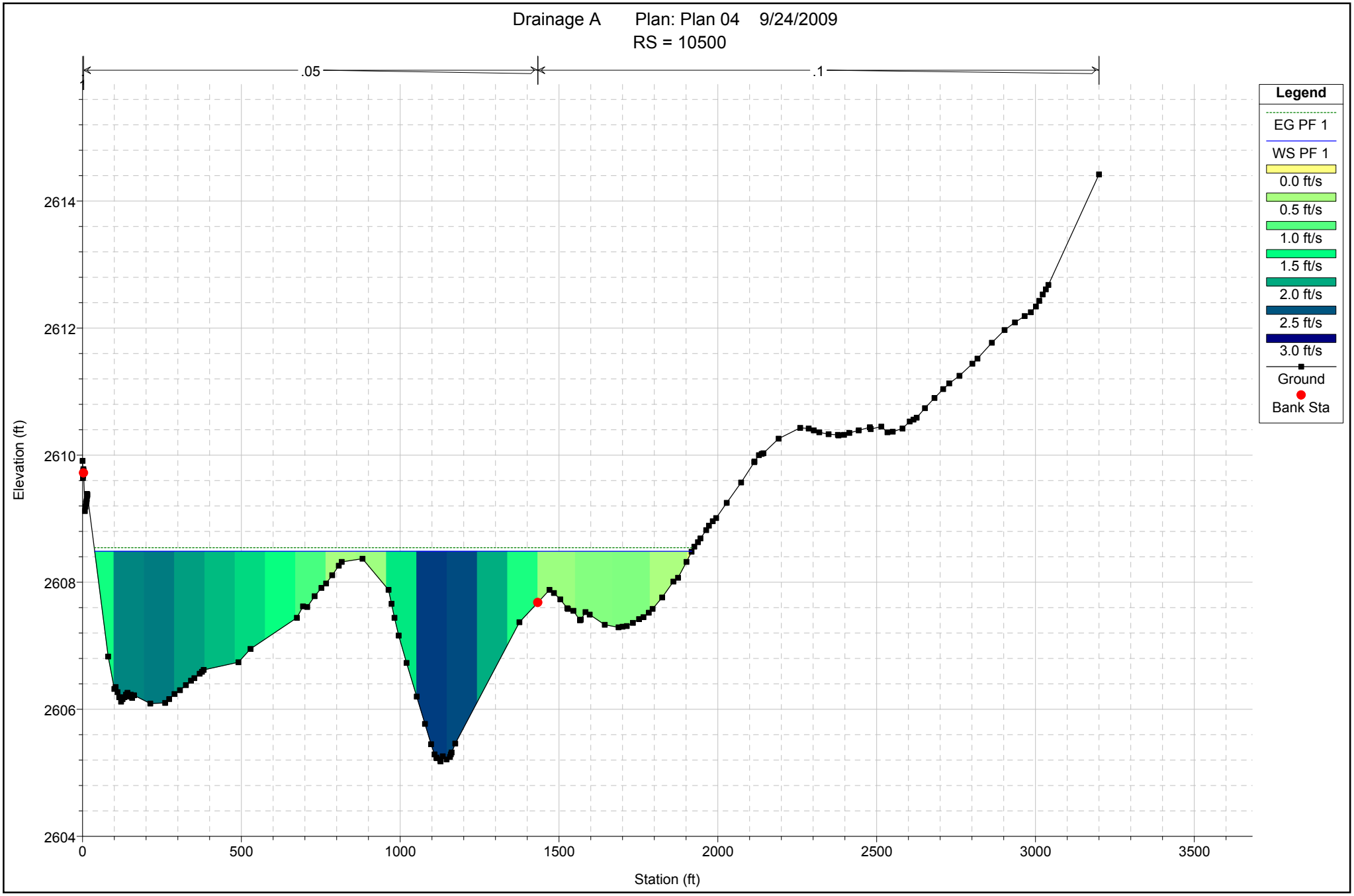
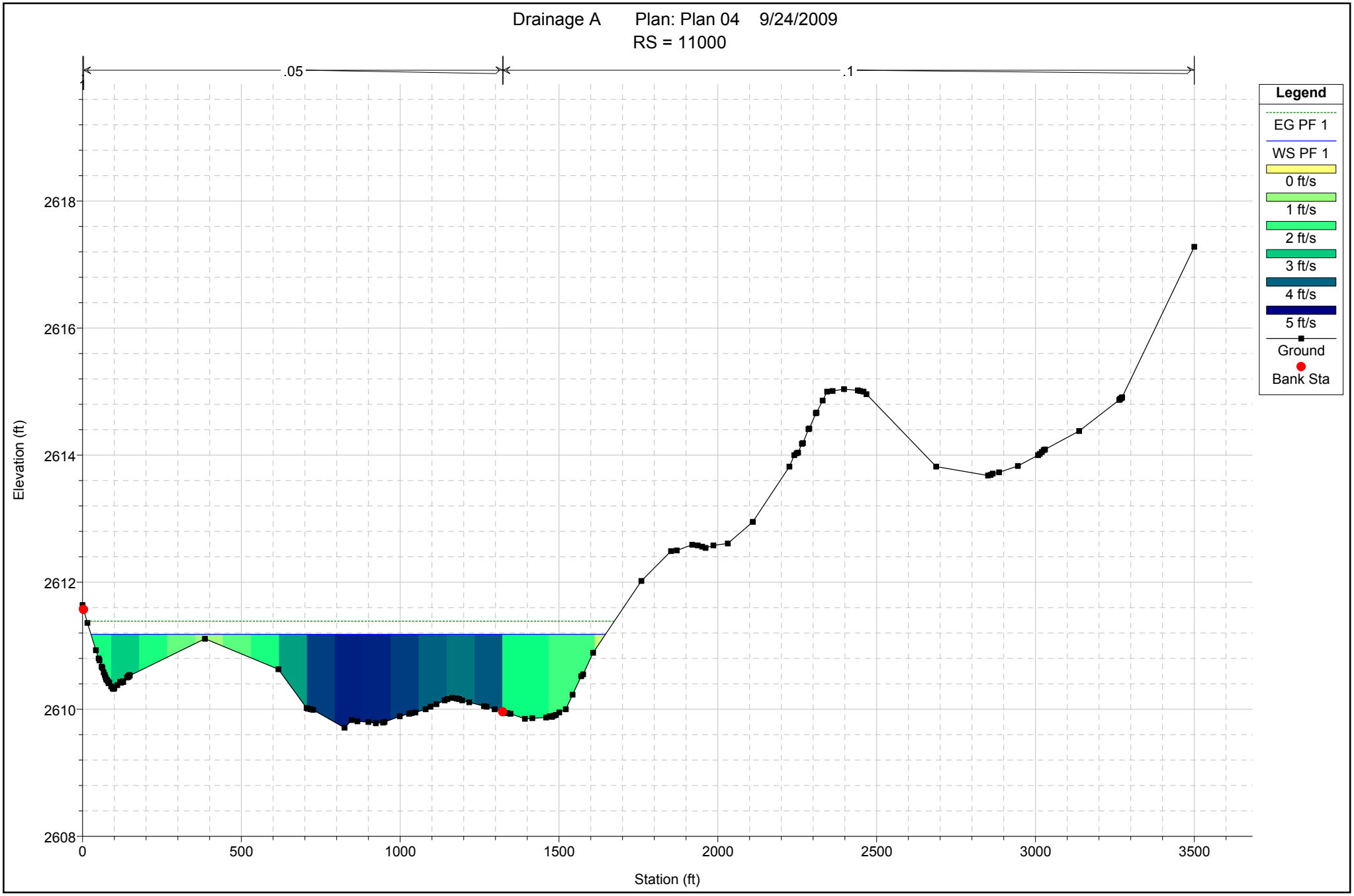
21000
21500
22000



1 in Horiz. = 400 ft 1 in Vert. = 2 ft



1 in Horiz. = 400 ft 1 in Vert. = 2 ft



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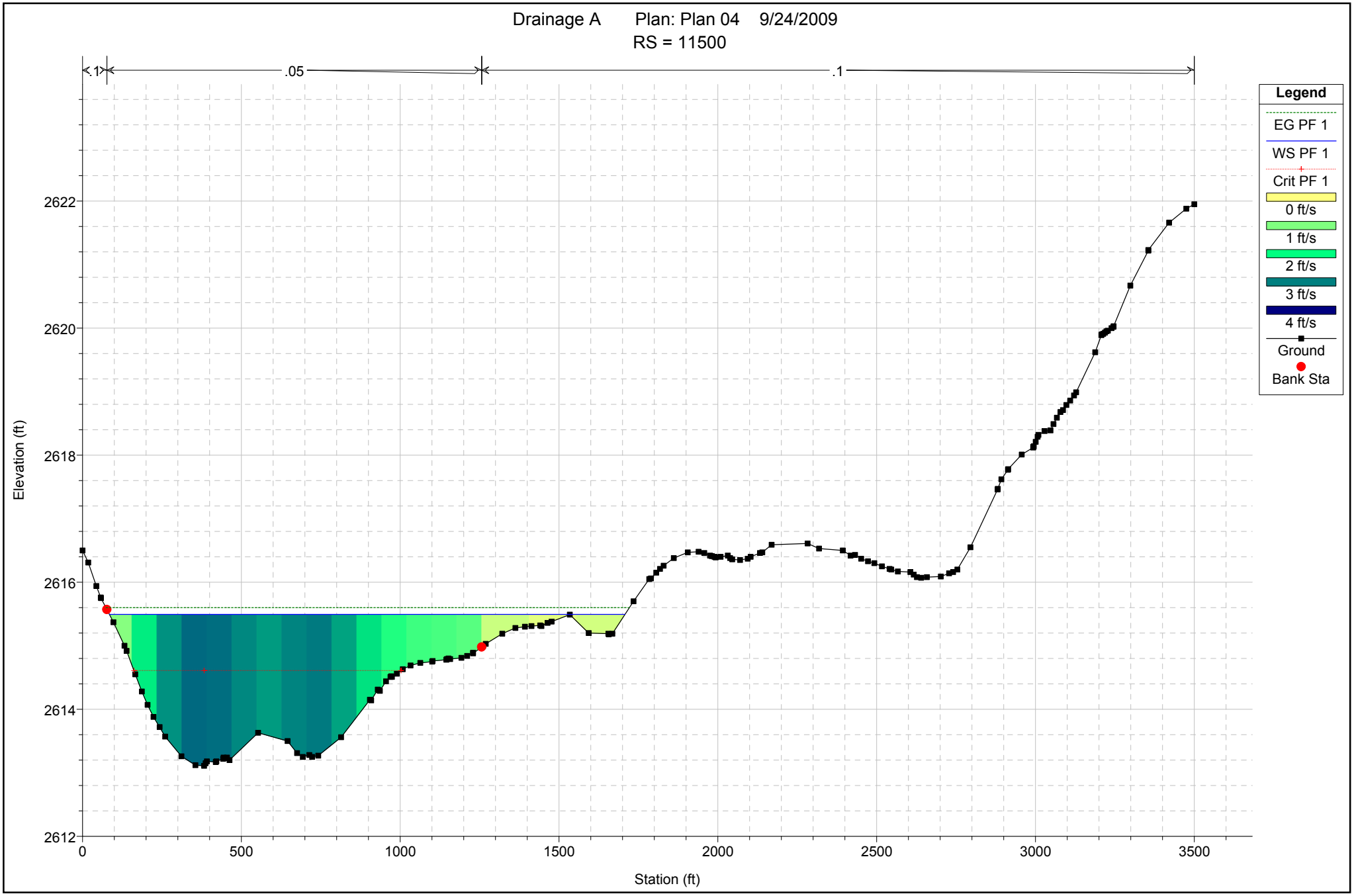

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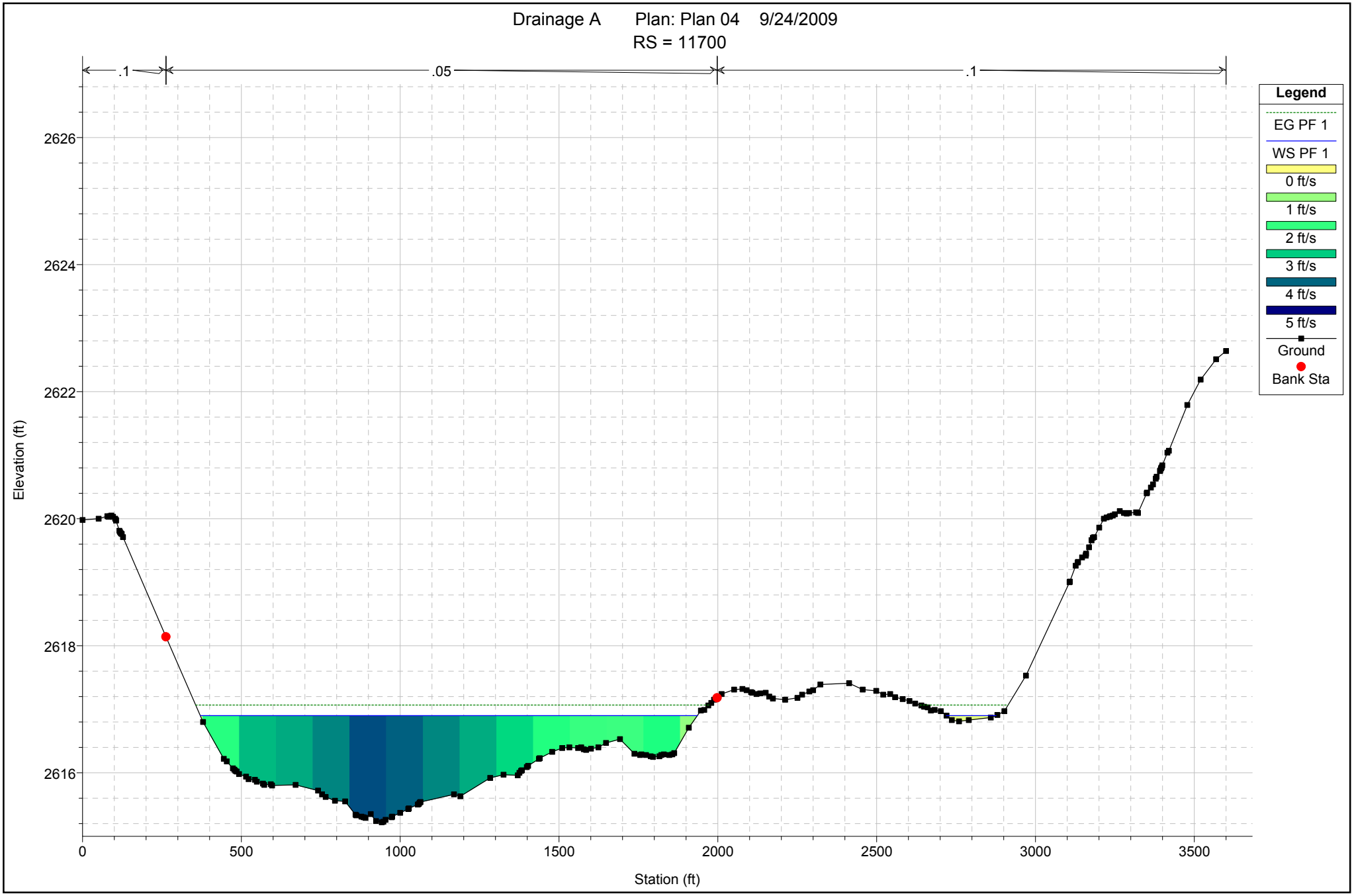

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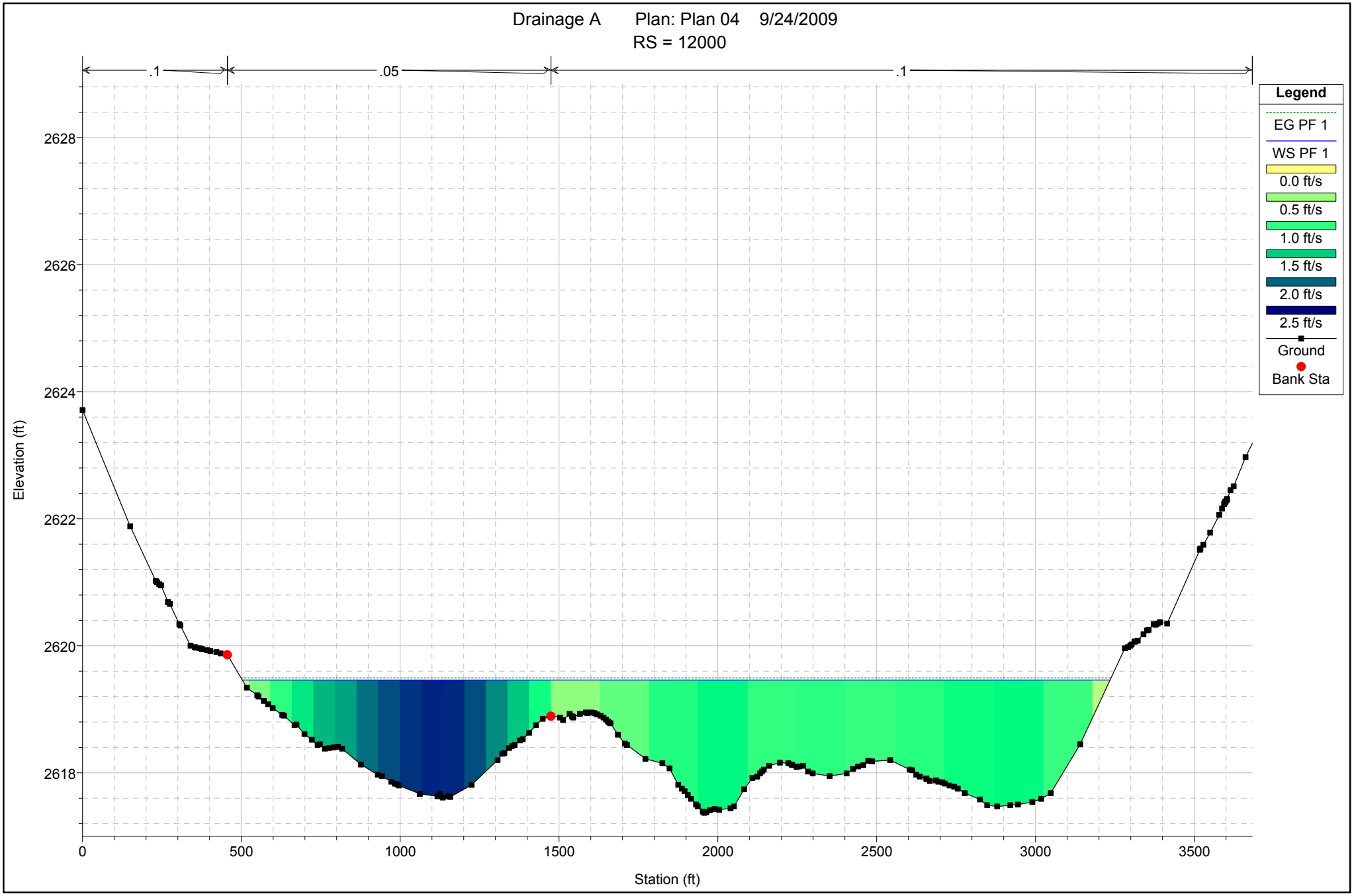

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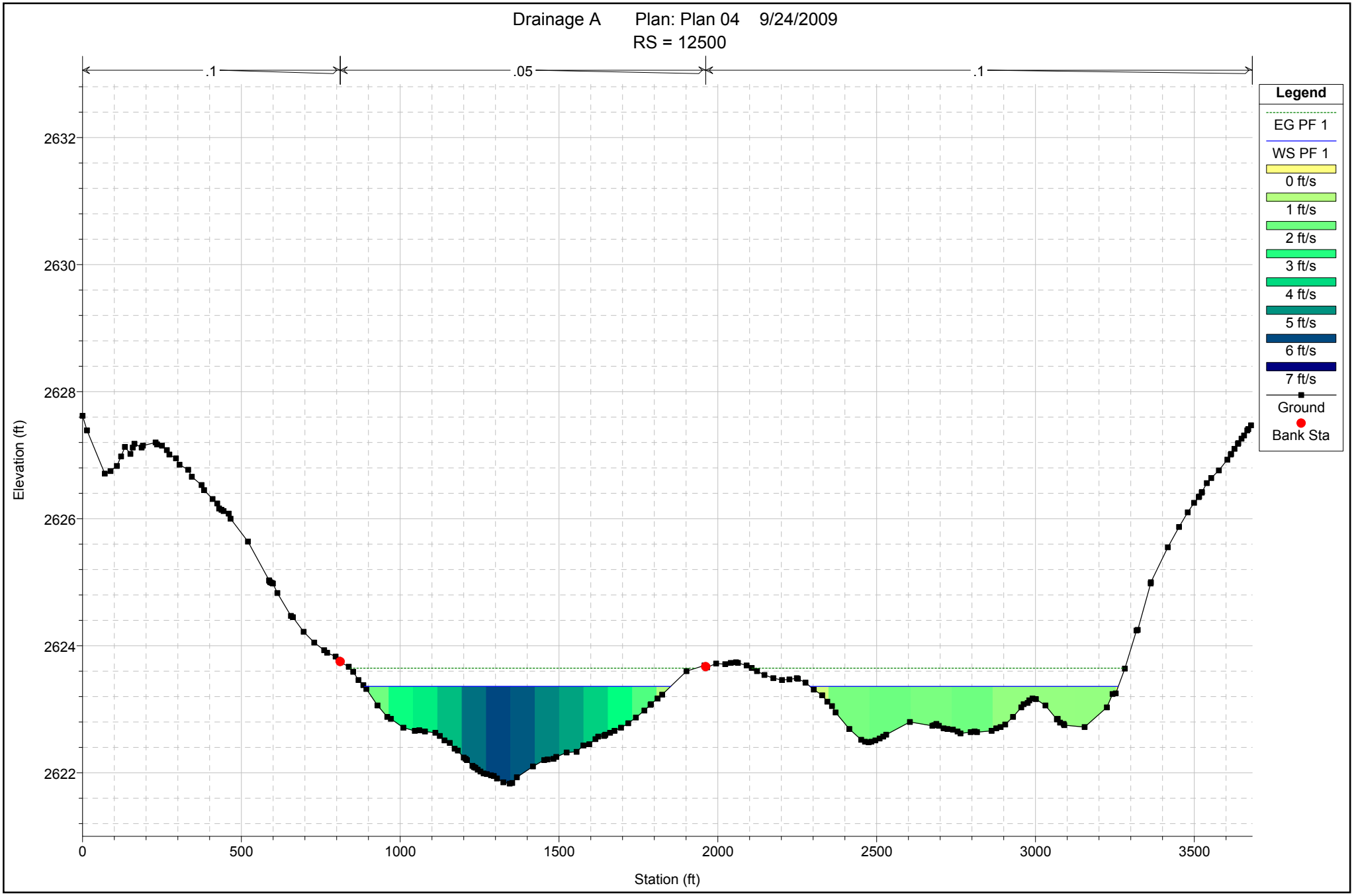
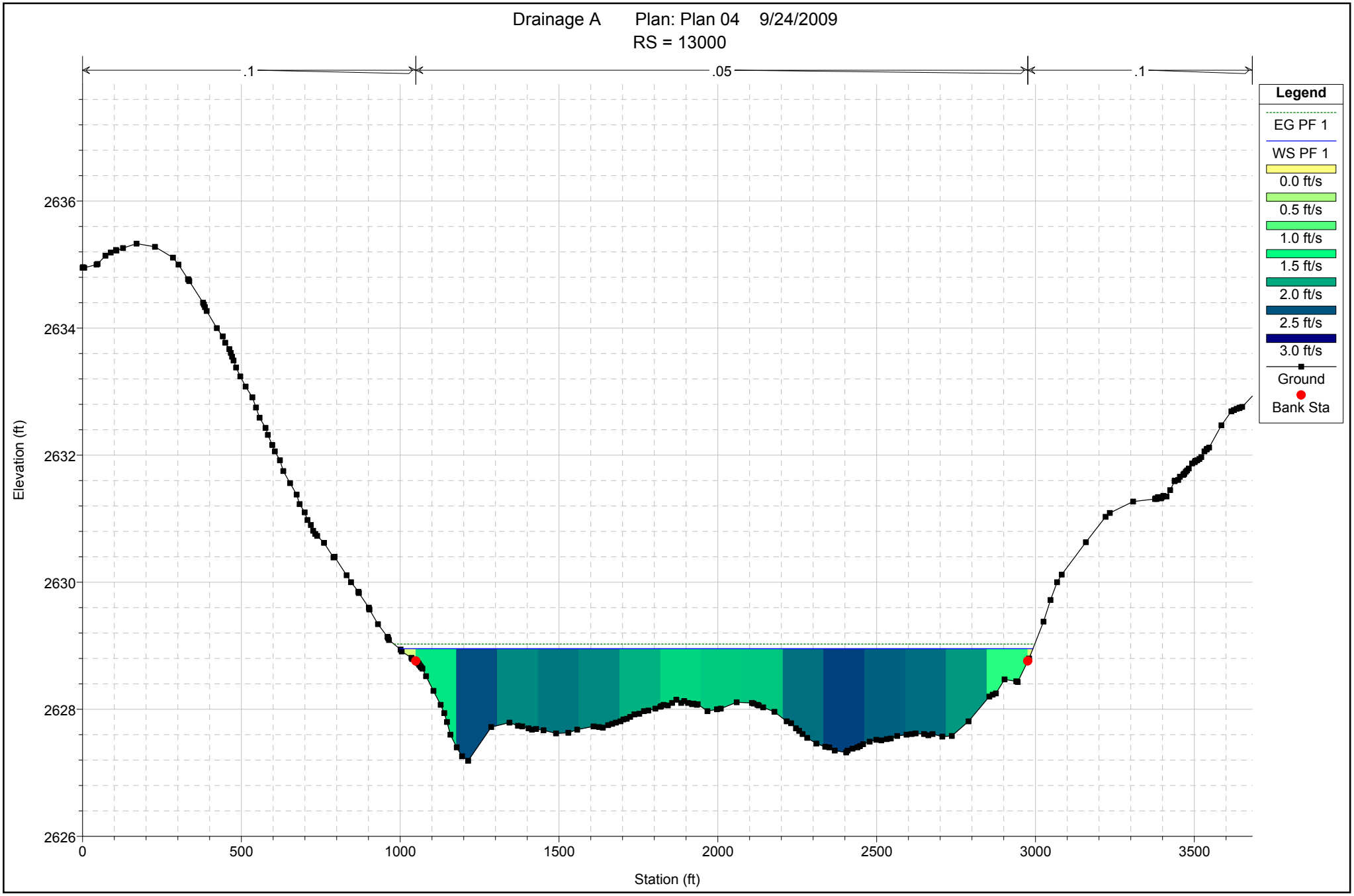
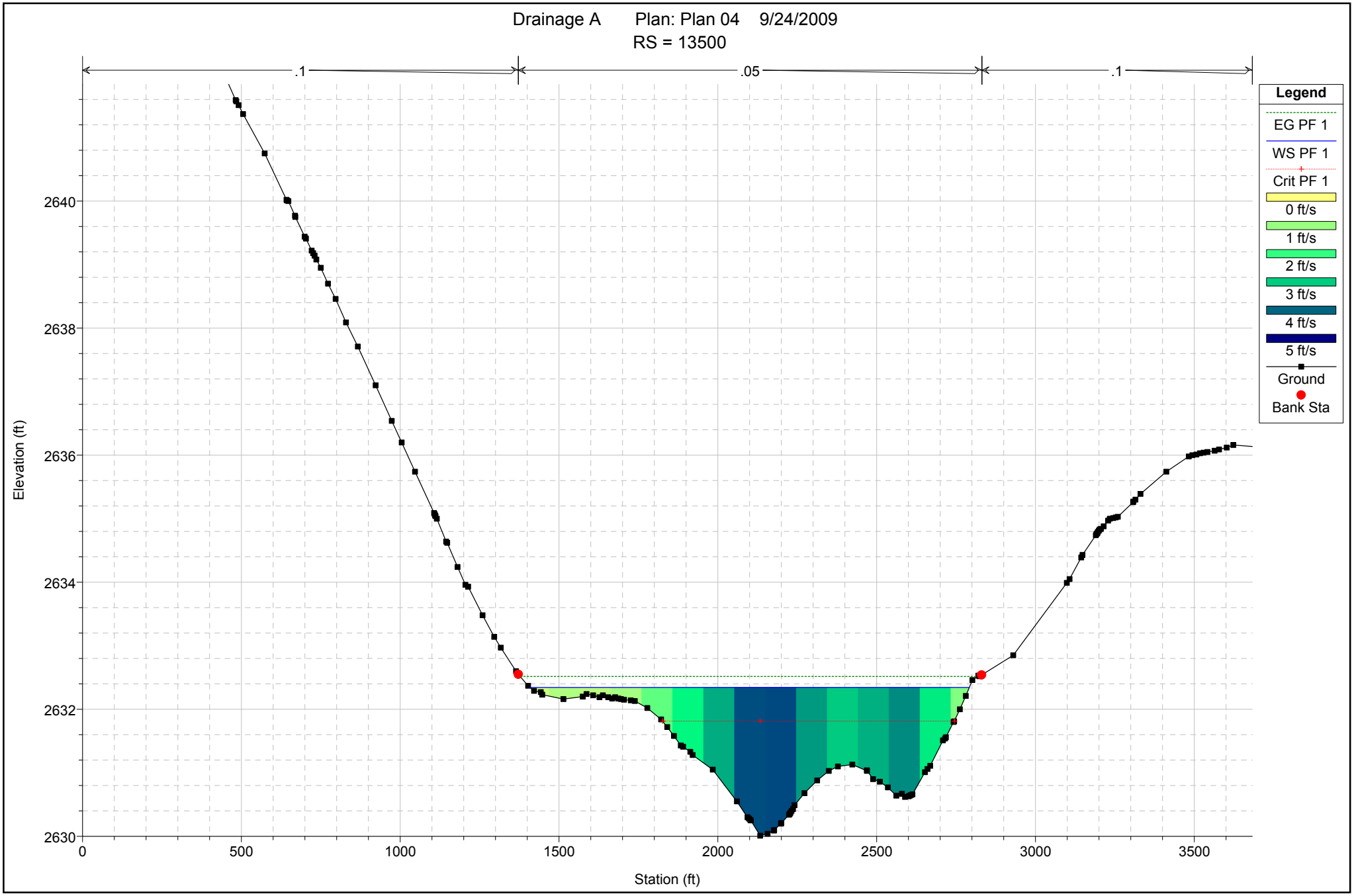


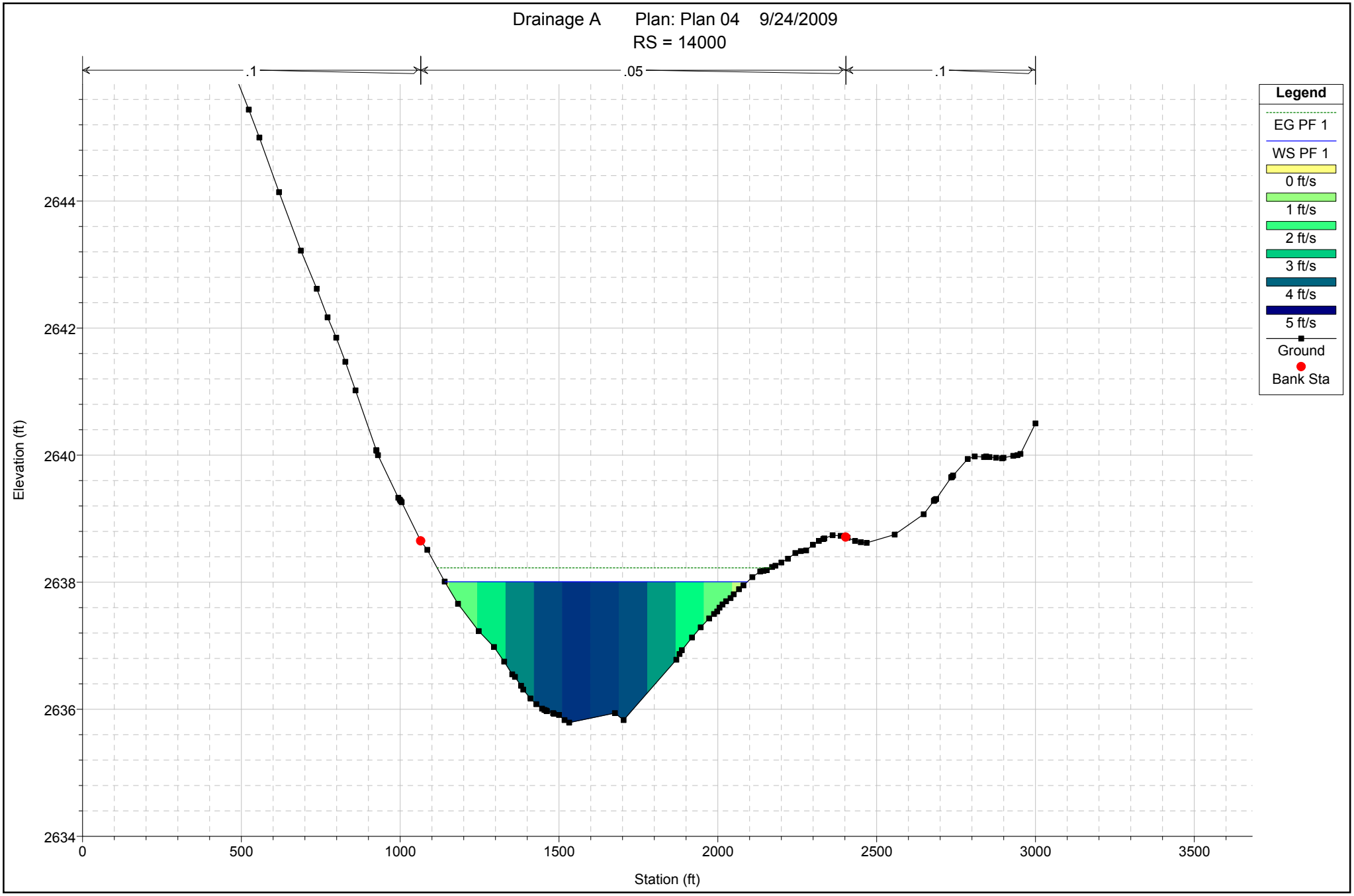
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



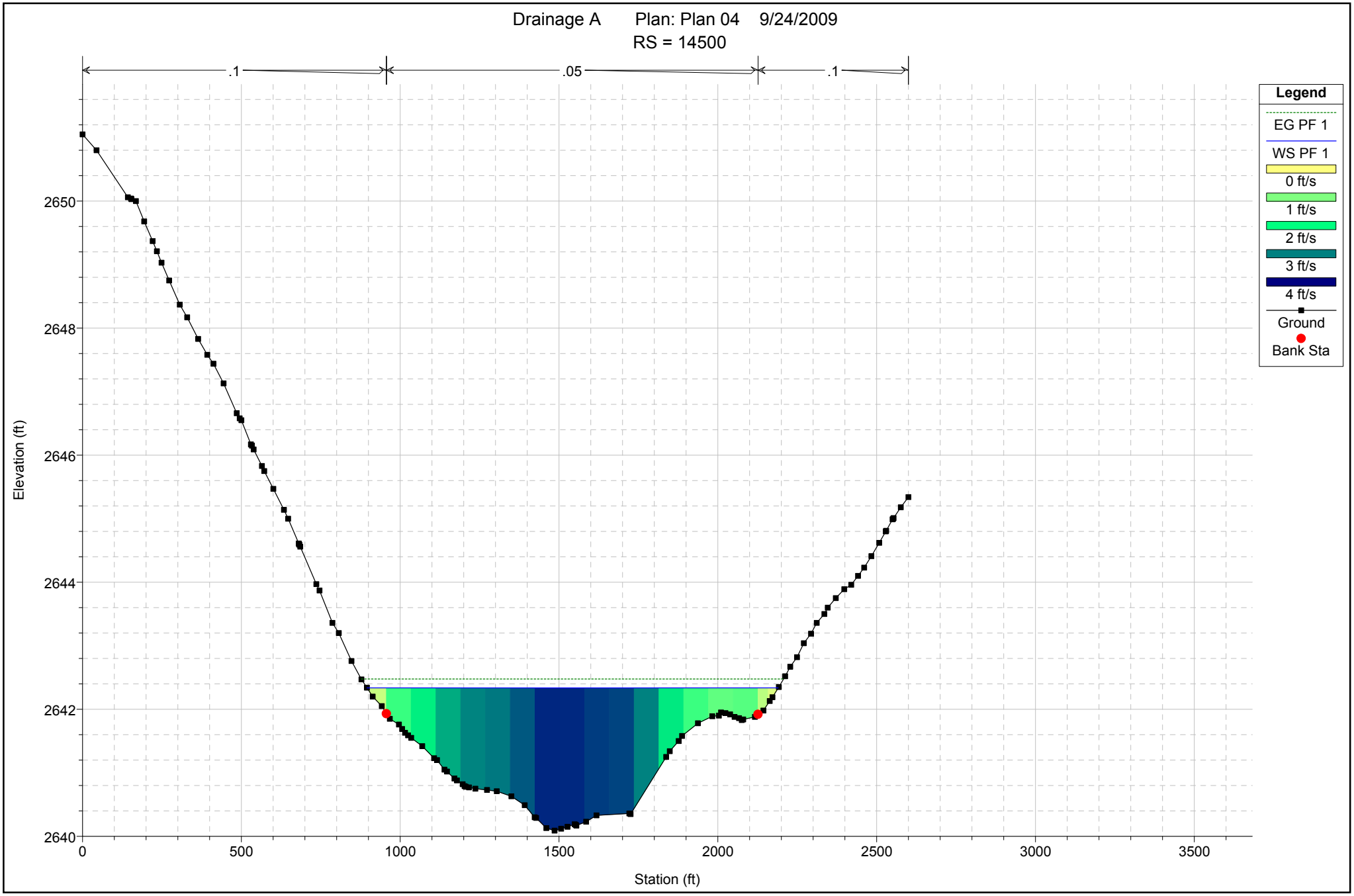
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



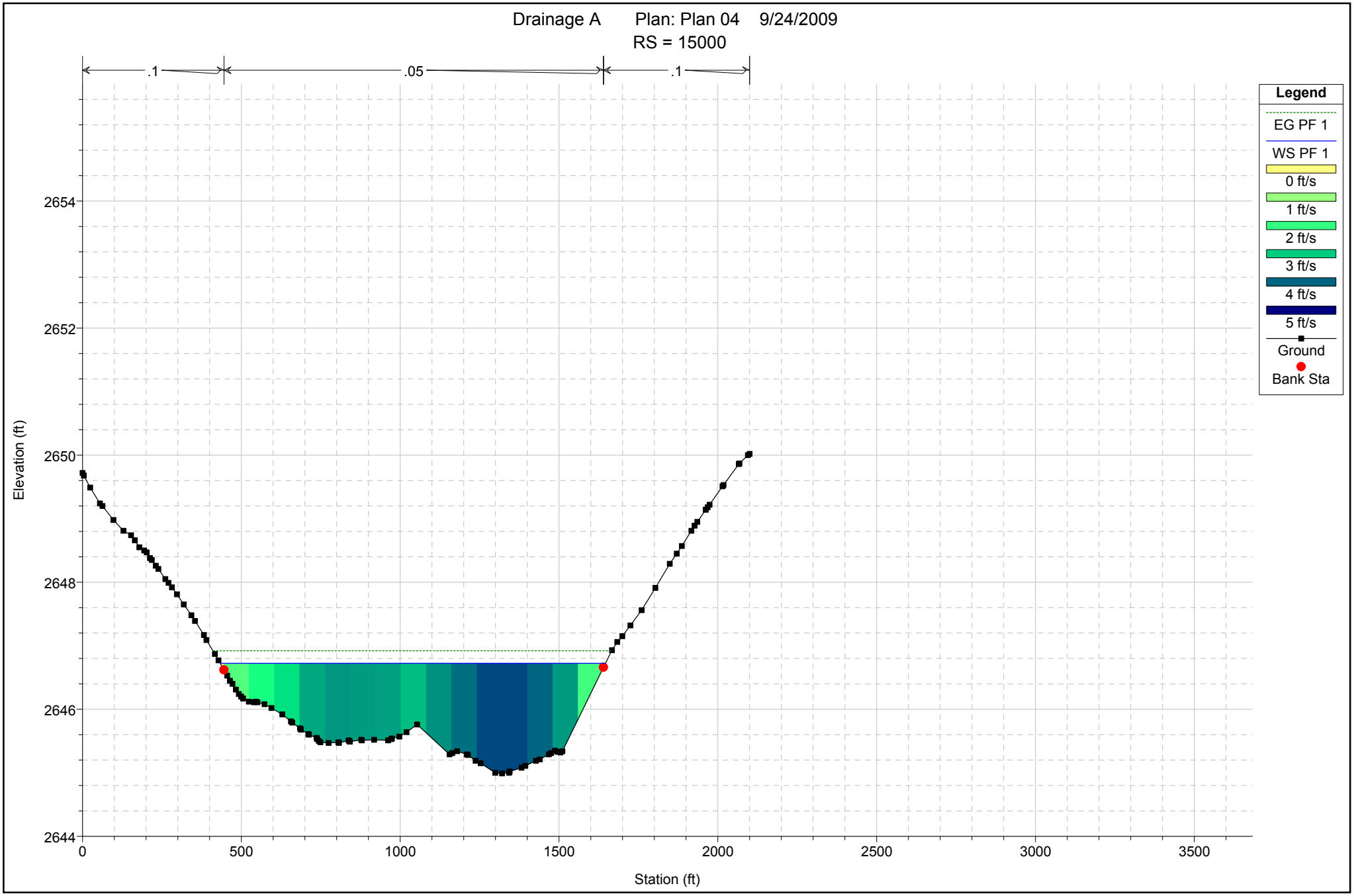
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



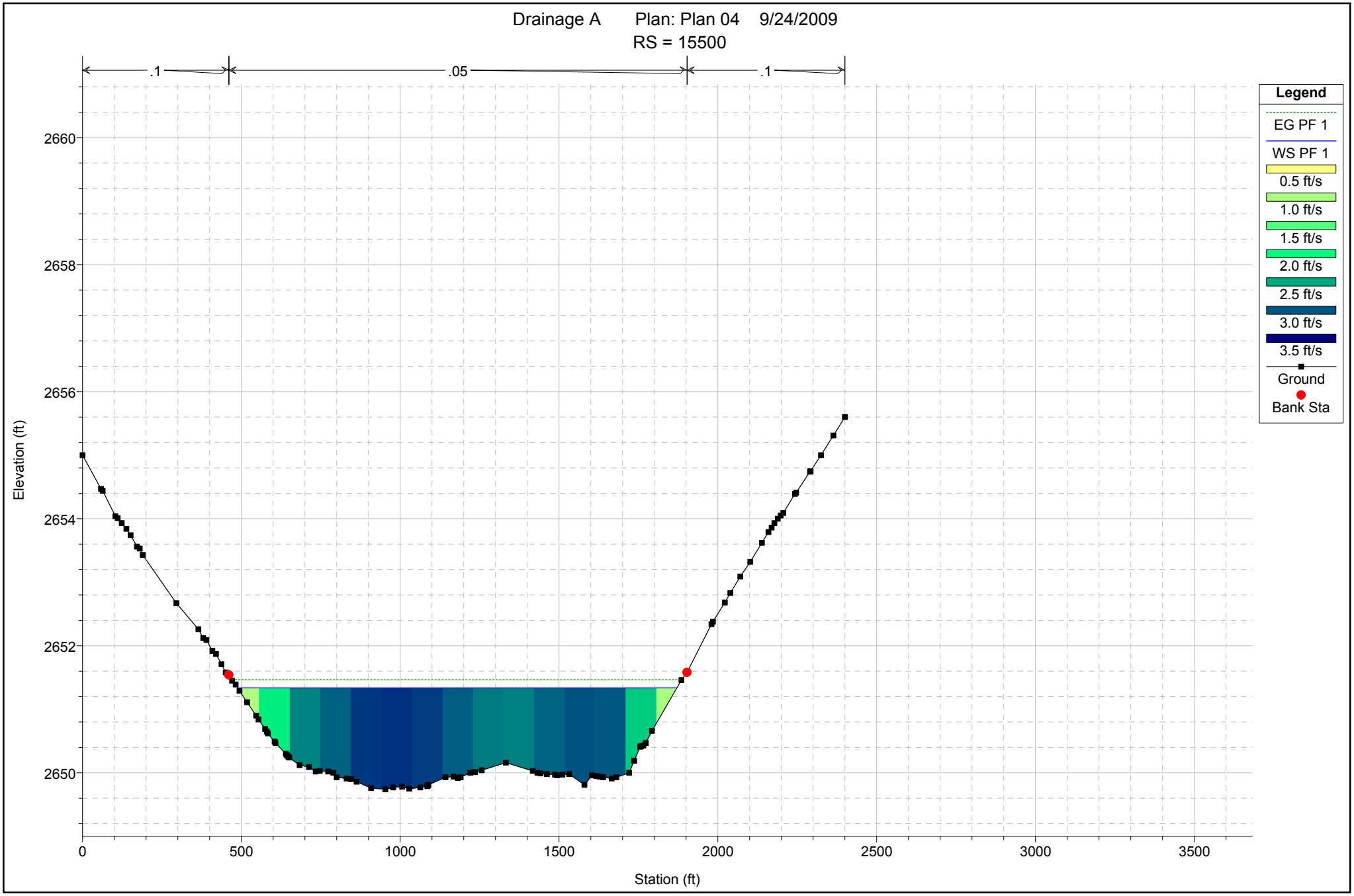
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



1 in Horiz. = 400 ft 1 in Vert. = 2 ft

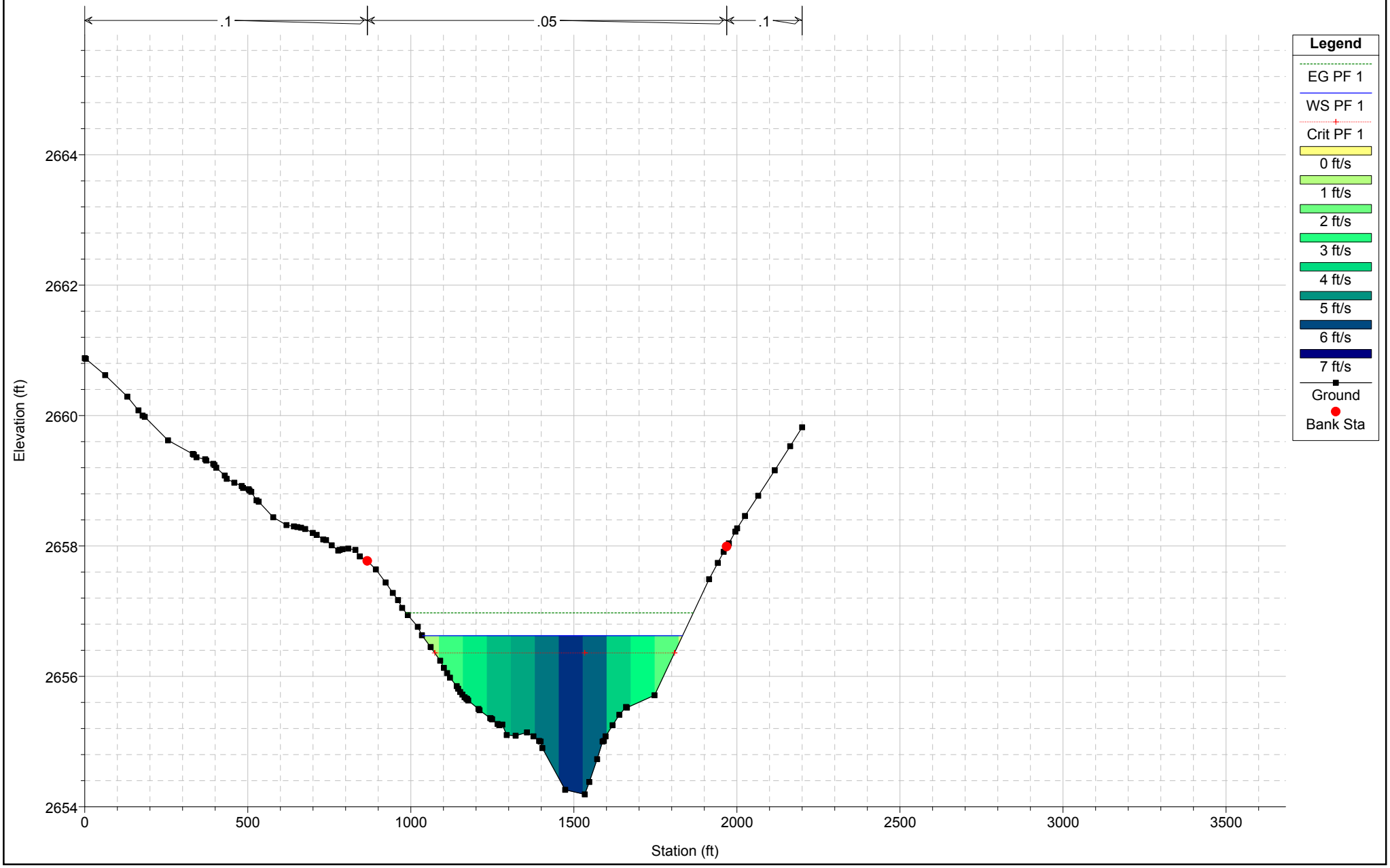


1 in Horiz. = 400 ft 1 in Vert. = 2 ft

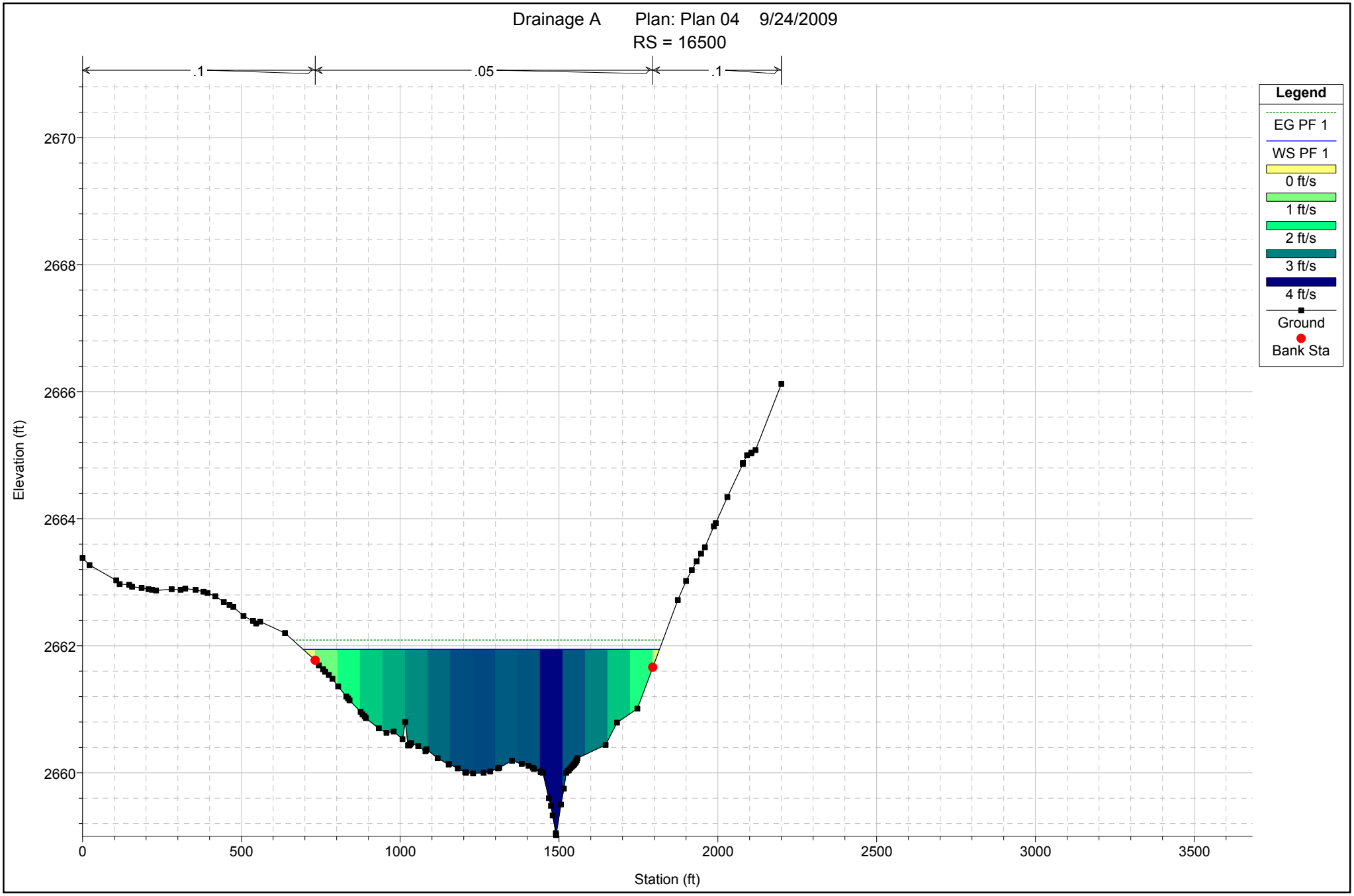


1 in Horiz. = 400 ft 1 in Vert. = 2 ft

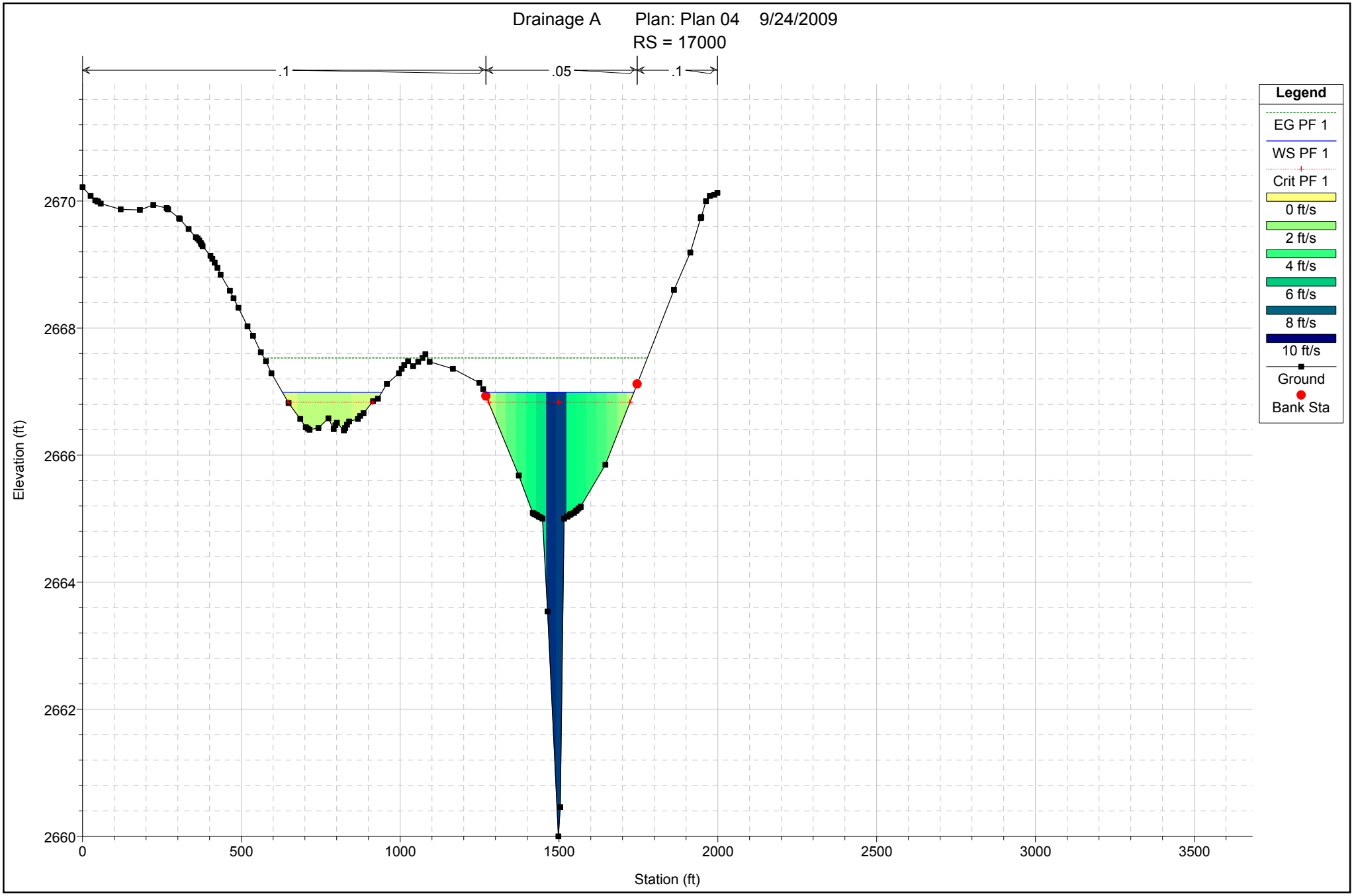
Drainage A Plan: Plan 04 9/24/2009
RS = 16000



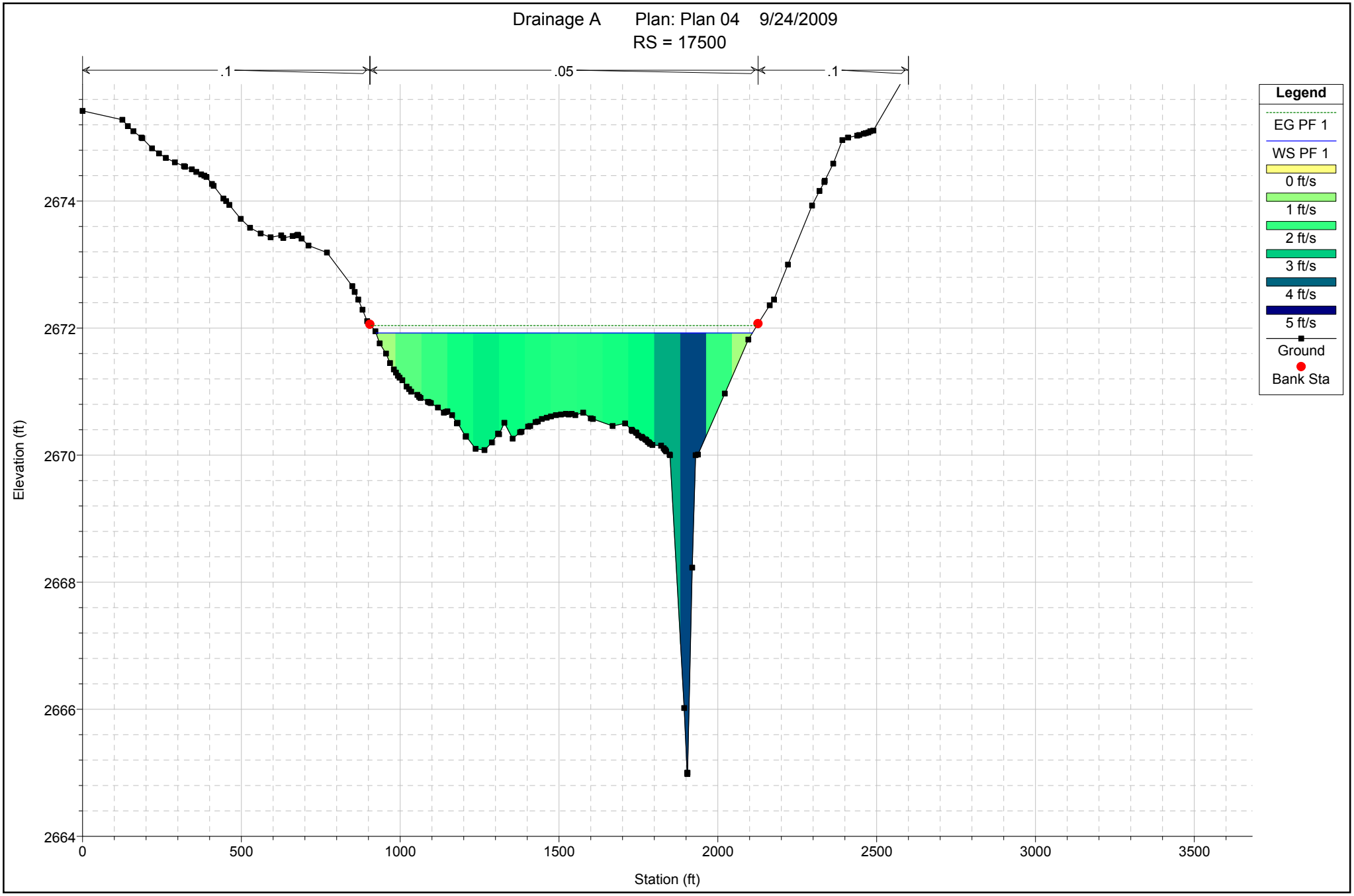
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



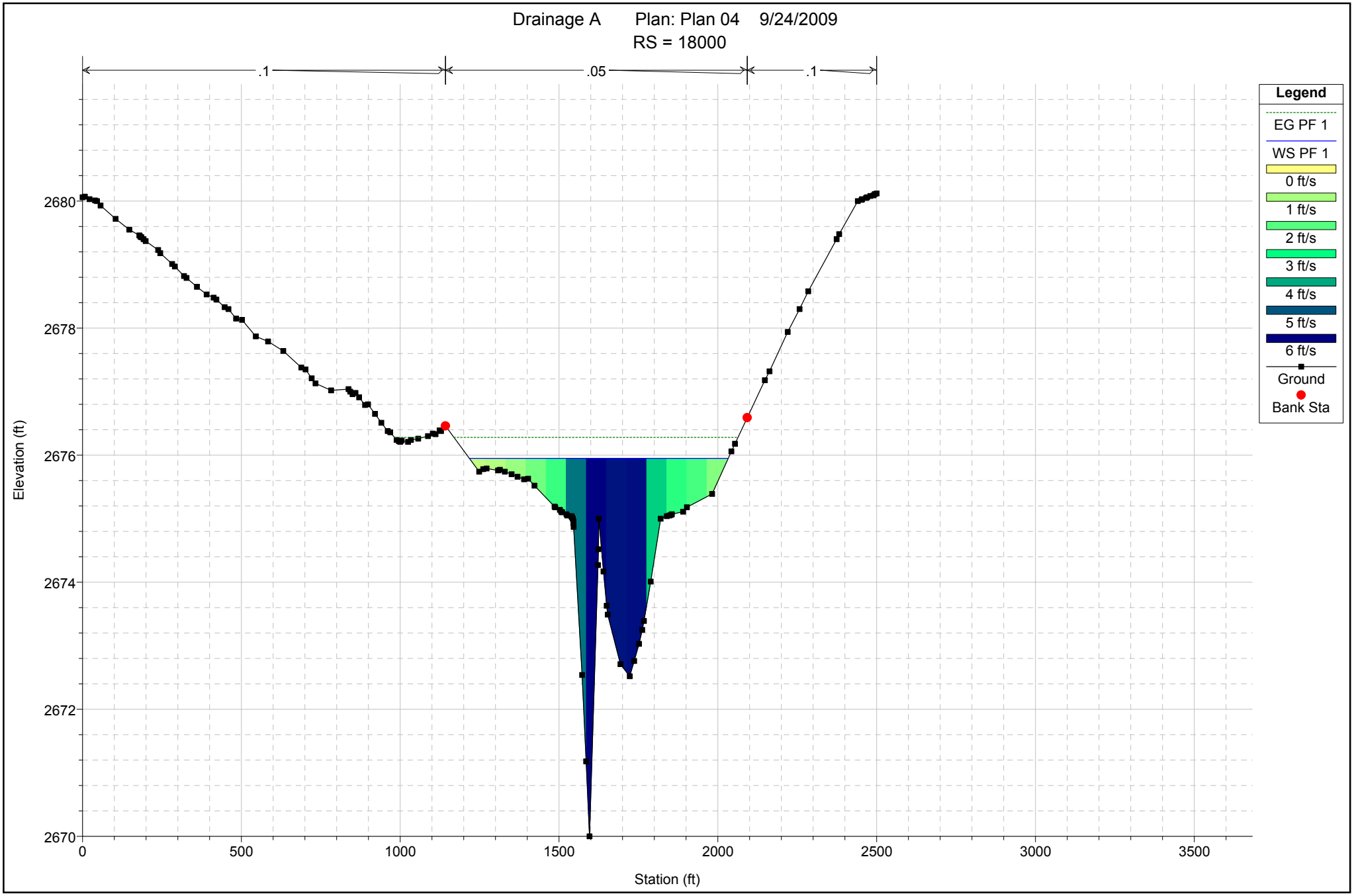
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



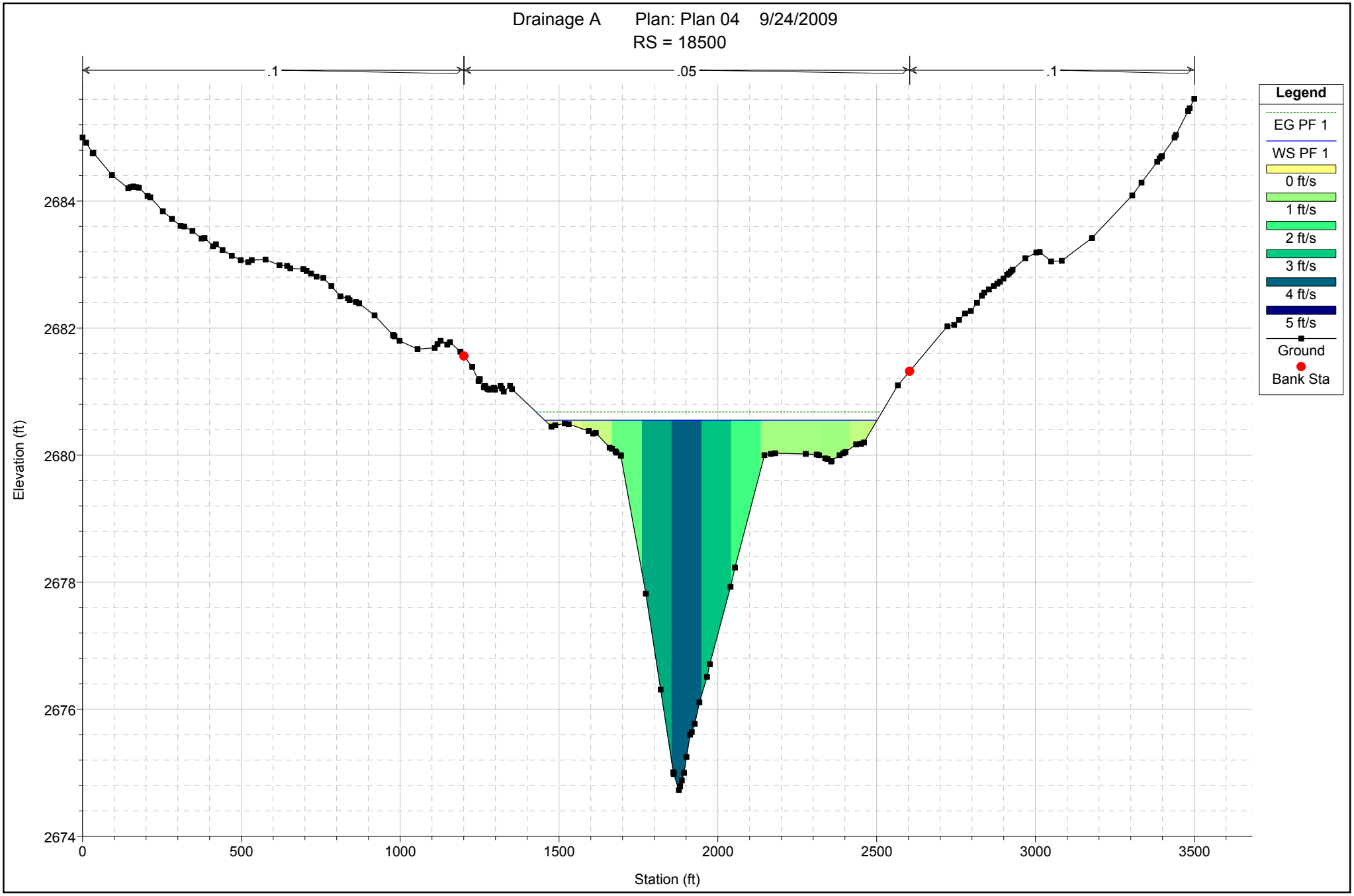
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



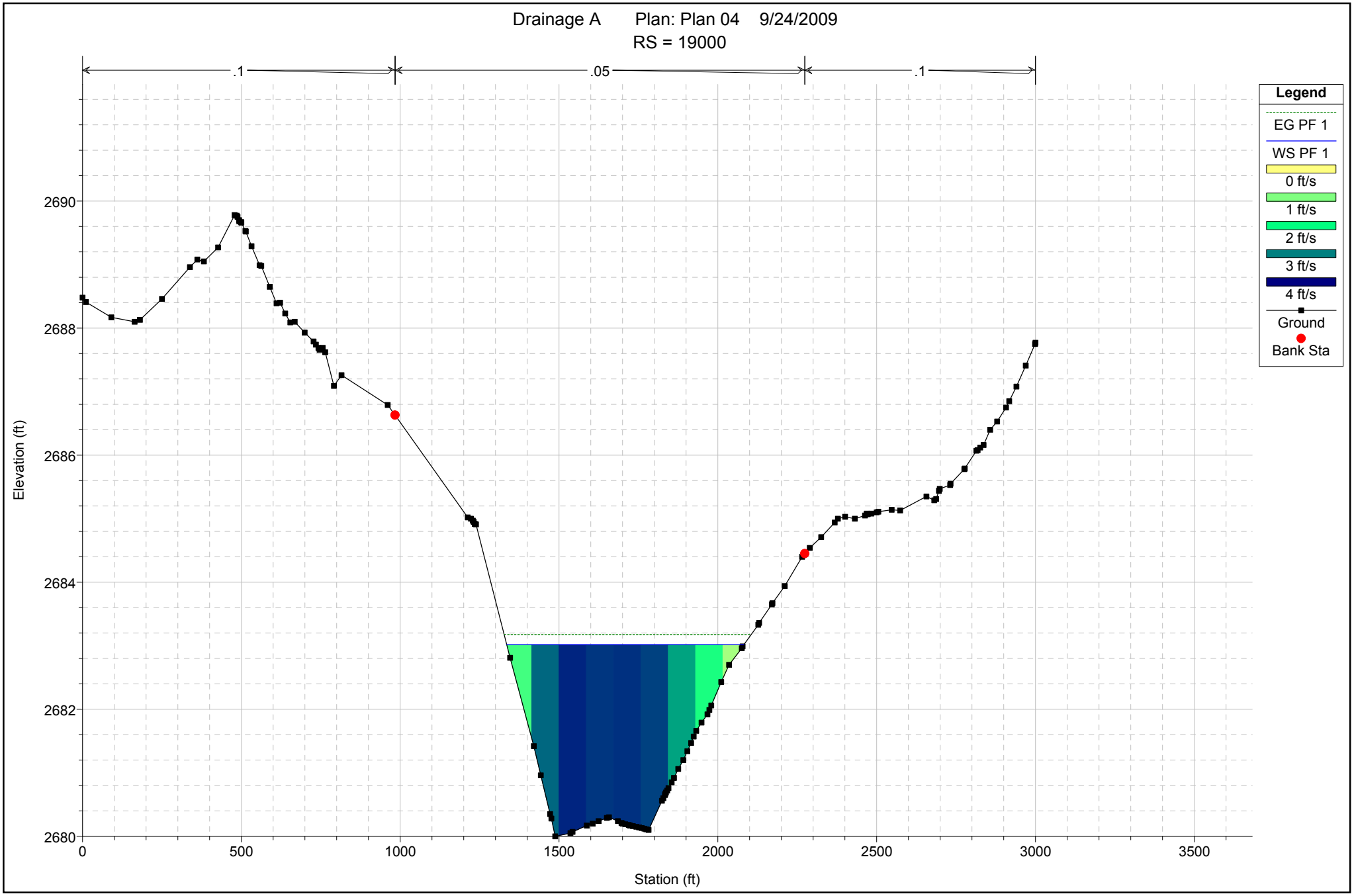
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



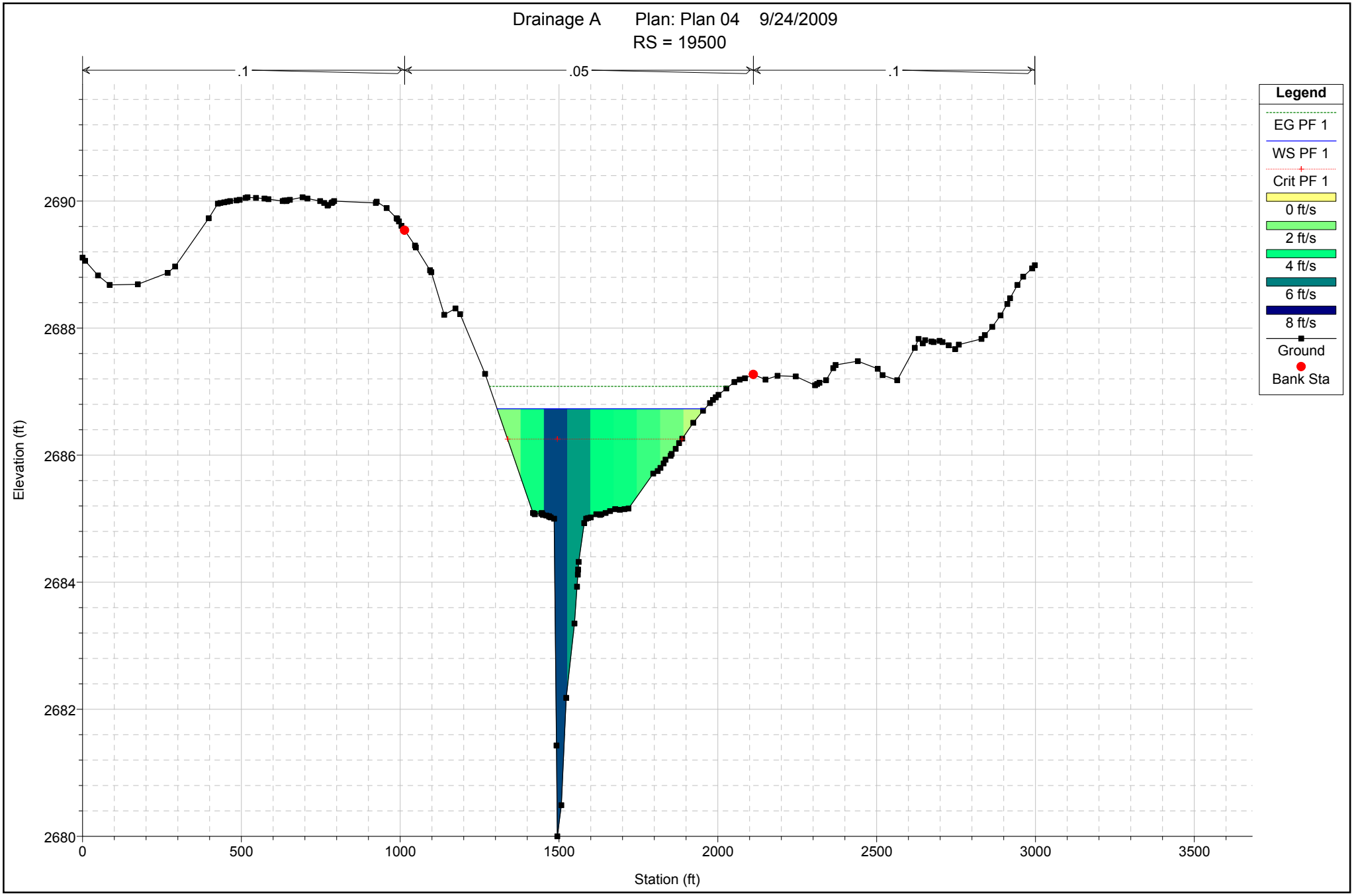
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



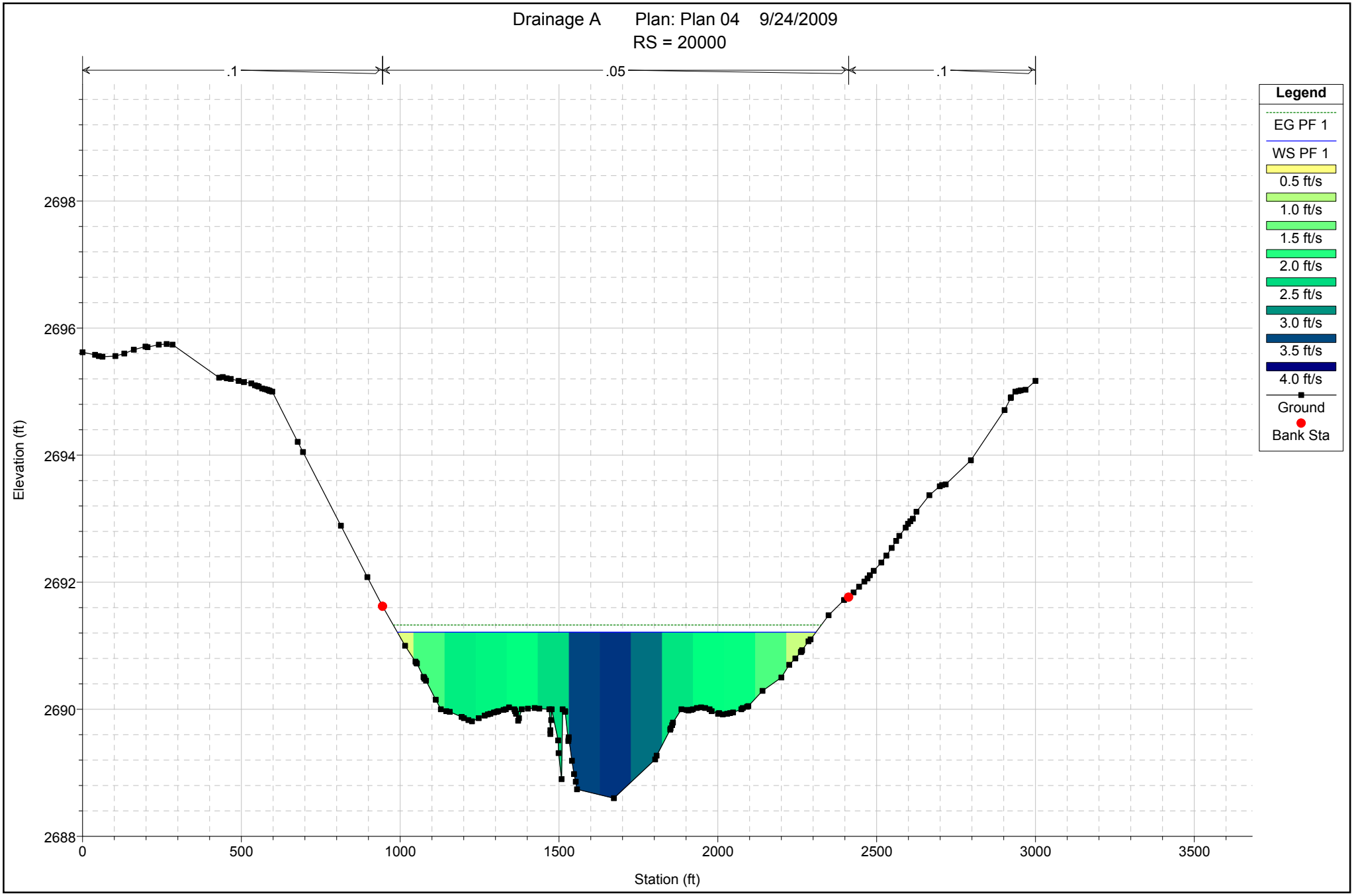
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



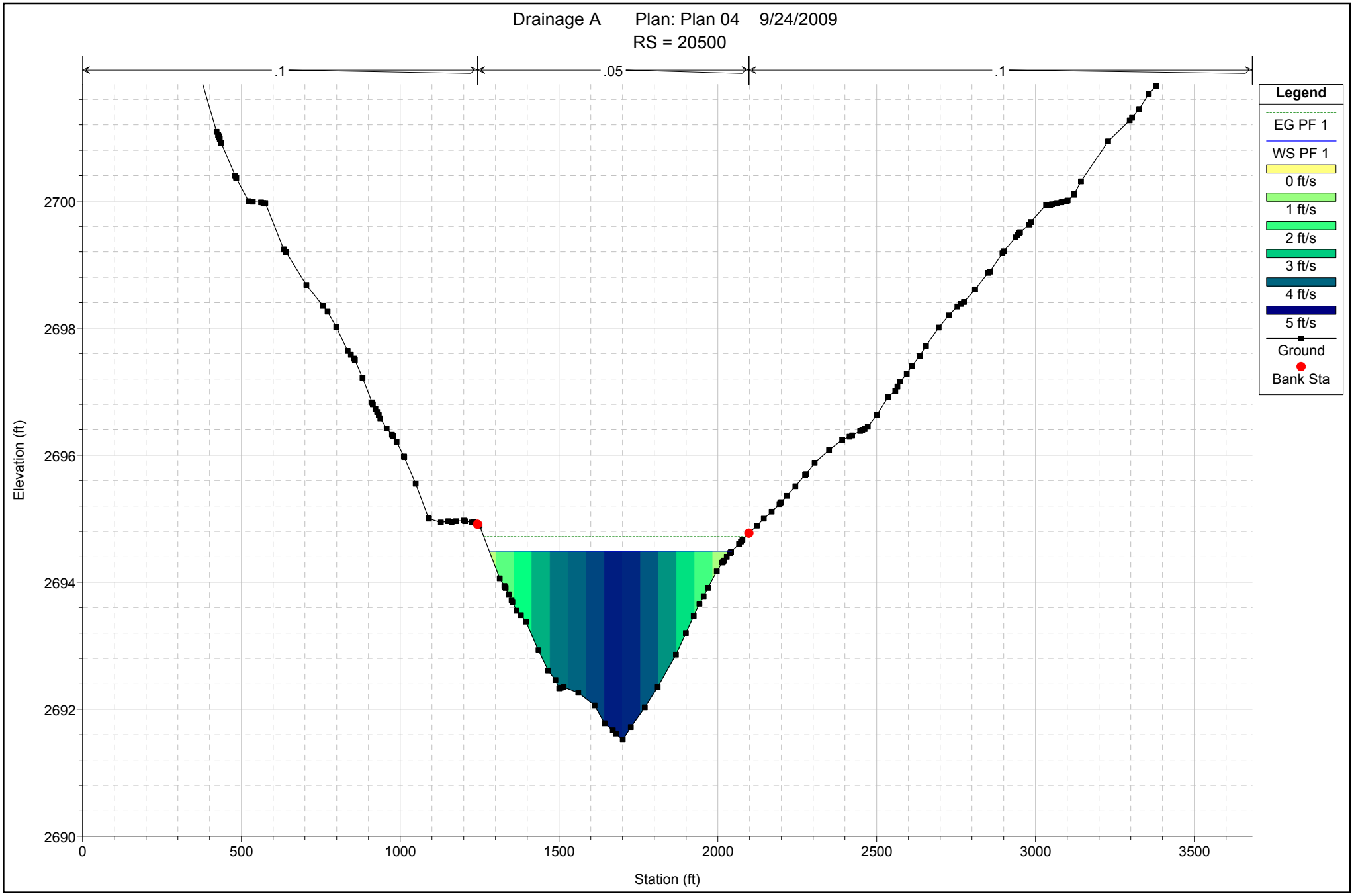
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



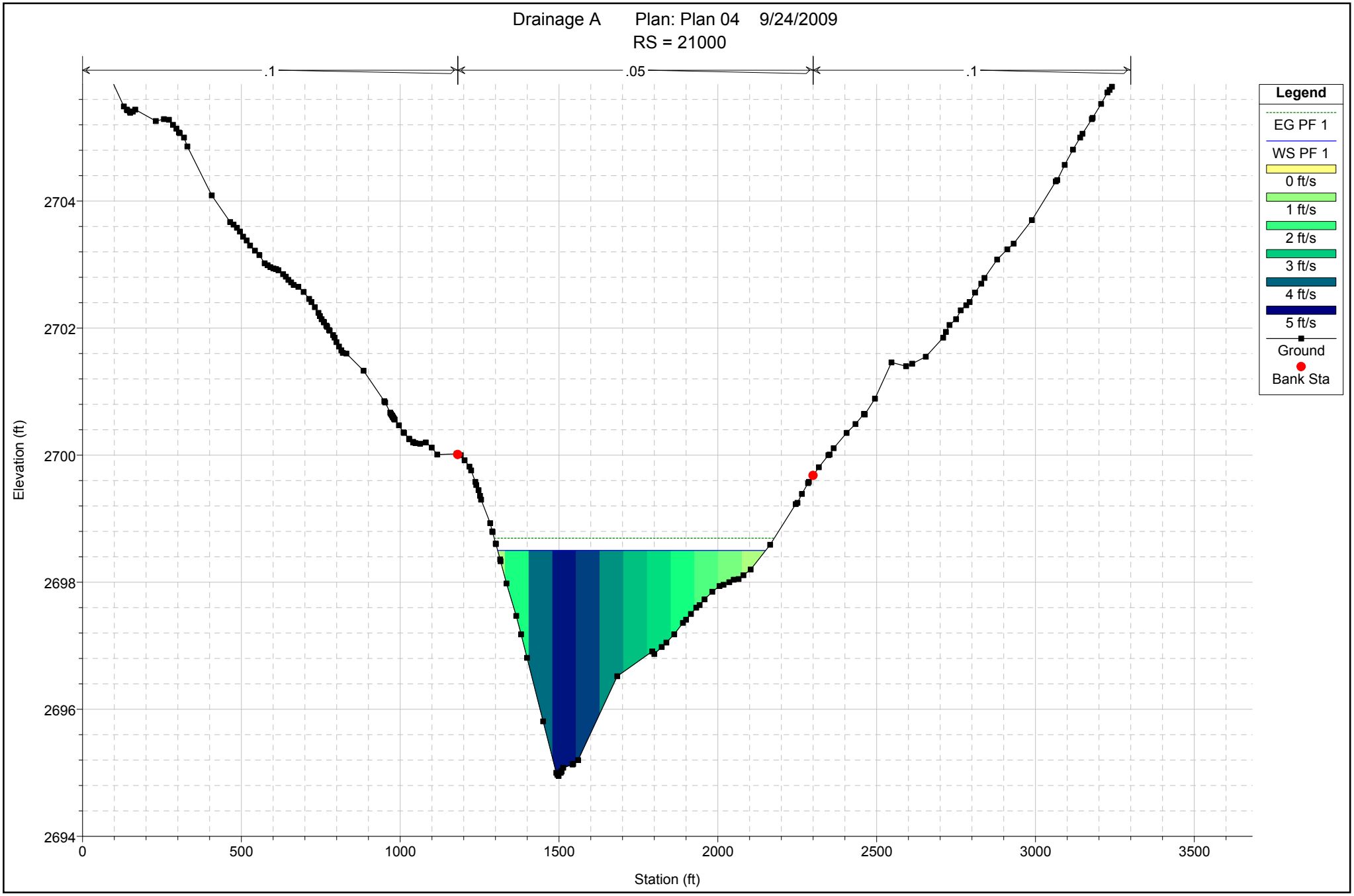
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



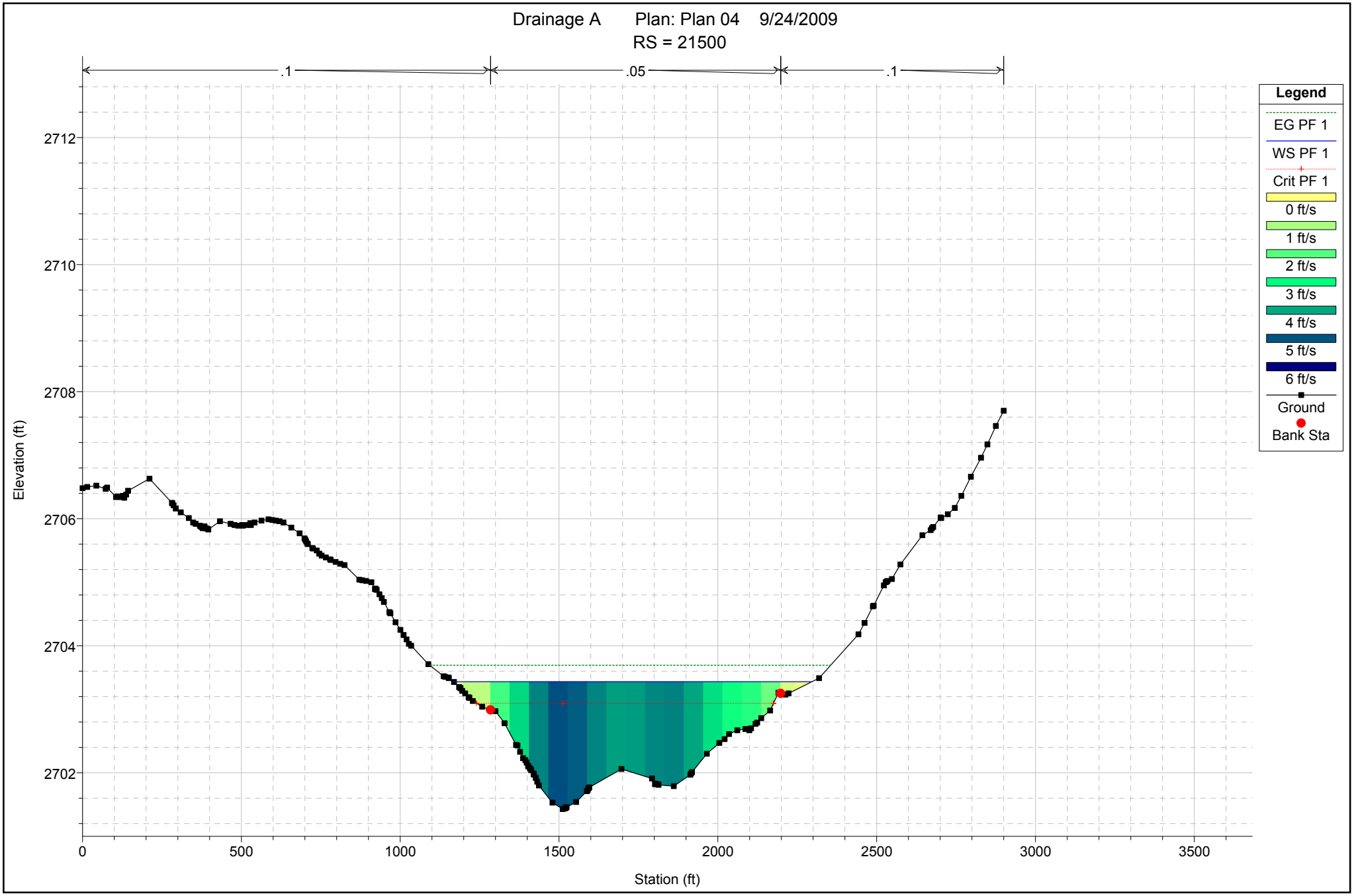
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



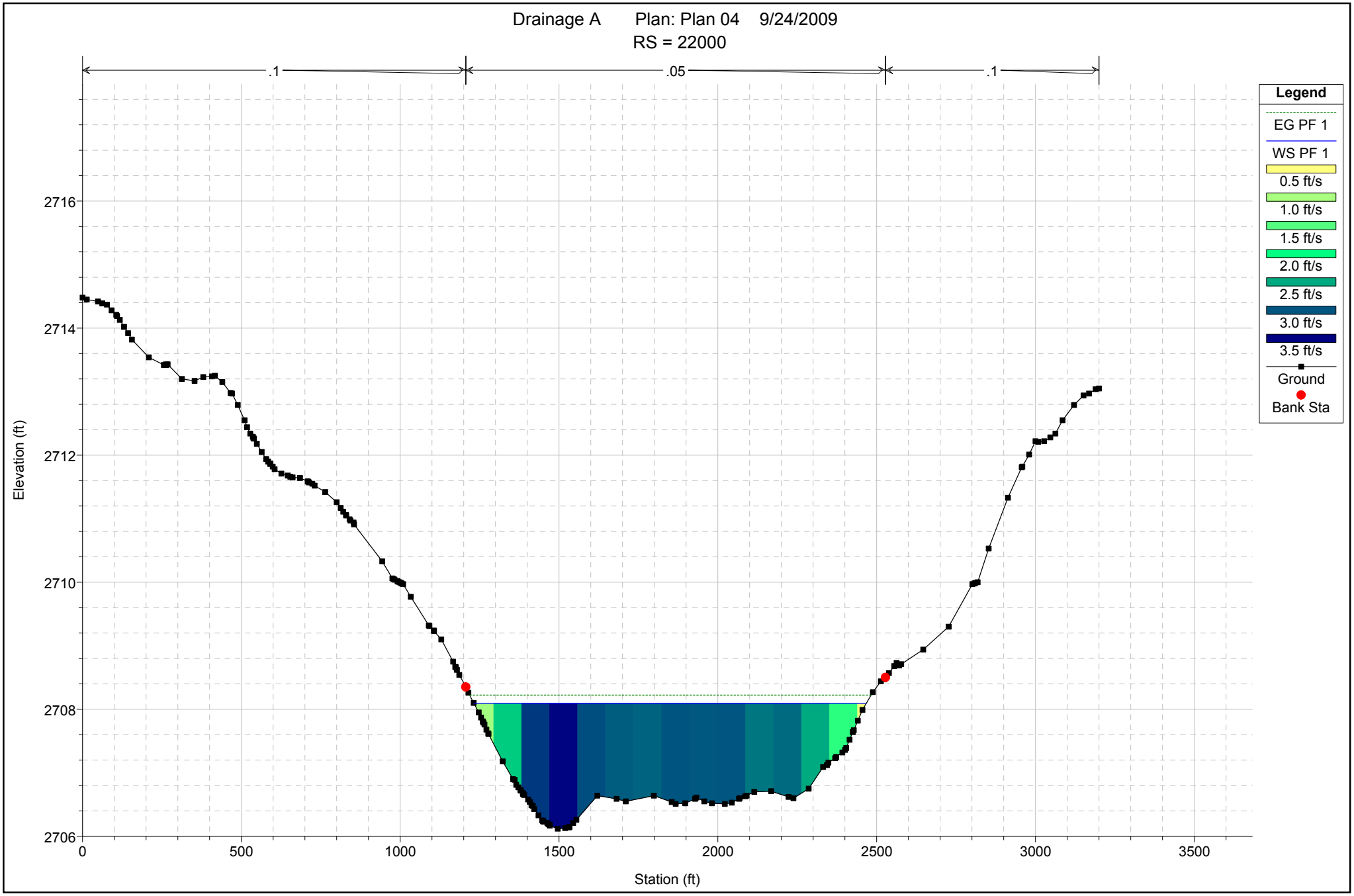
1 in Horiz. = 400 ft 1 in Vert. = 2 ft



1 in Horiz. = 400 ft 1 in Vert. = 2 ft



1 in Horiz. = 400 ft 1 in Vert. = 2 ft



1 in Horiz. = 400 ft 1 in Vert. = 2 ft

```
                    HEC-RAS Version 4.0.0 March 2008
                      U.S. Army Corps of Engineers
                     Hydrologic Engineering Center
                           609 Second Street
                           Davis, California


          X     X  XXXXXX    XXXX        XXXX       XX      XXXX
          X     X  X        X    X       X   X     X  X    X
          X     X  X        X            X   X    X    X   X
          XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
          X     X  X        X            X  X     X    X        X
          X     X  X        X    X       X   X    X    X        X
          X     X  XXXXXX    XXXX        X    X   X    X   XXXXX



PROJECT DATA
Project Title: Drainage B
Project File : Secondary.prj
Run Date and Time: 9/24/2009 10:02:40 AM

Project in English units

Project Description:
Drainage Channel "B"



PLAN DATA

Plan Title: Plan 02
Plan File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Secondary\Secondary.p02

           Geometry Title: Drainage B
           Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Secondary\Secondary.g01

           Flow Title    : Drainage B
           Flow File     : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Secondary\Secondary.f01

Plan Summary Information:
Number of:  Cross Sections =   18    Multiple Openings  =    0
            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.01
    Critical depth calculation tolerance =  0.01
    Maximum number of iterations         =  20
    Maximum difference tolerance         =  0.3
    Flow tolerance factor                =  0.001

Computation Options
    Critical depth computed only where necessary
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Average Conveyance
    Computational Flow Regime:     Subcritical Flow
```

FLOW DATA

Flow Title: Drainage B
Flow File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Secondary\Secondary.f01

Flow Data (cfs)

River	Reach	RS	PF 1
Secondary	Secondary	15000	76.4

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Secondary	Secondary	PF 1		Critical

GEOMETRY DATA

Geometry Title: Drainage B
Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Secondary\Secondary.g01

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 15000

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2690.3	28.23	2690	271.92	2687.45	357.75	2686.56	514.65	2685
533.79	2684.65	558.71	2684.48	609	2684.17	611.28	2684.16	616.54	2684.05
653.4	2683.82	668.02	2683.74	680.78	2683.45	683.44	2683.43	702.33	2683
715.04	2682.71	719.08	2682.65	738.31	2682.33	741.68	2682.25	749.09	2682.09
757.44	2681.9	795.14	2681.04	811.43	2680.75	841.16	2680	874.18	2680.55
884	2680.91	913.94	2682	954.8	2683.51	966.47	2683.94	996.02	2685
1012.85	2685.01	1020.26	2685.02	1028.96	2685.03	1046.82	2685.04	1066.79	2685.05
1076.02	2685.06	1090.39	2685.07	1114.74	2685.08	1129.63	2685.1	1138.28	2685.11
1147.14	2685.12	1163.66	2685.14	1173.16	2685.15	1185.89	2685.16	1194.27	2685.18
1202.72	2685.19	1215.13	2685.2	1226.47	2685.21	1240.88	2685.22	1253.14	2685.23
1270.64	2685.25	1291.46	2685.26	1303.03	2685.27	1314.61	2685.29	1334.54	2685.32
1353.82	2685.34	1376.45	2685.35	1385.77	2685.36	1388.05	2685.38	1395.79	2685.39

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	609	.05	954.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
609	954.8	478.67	500	523.42	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2681.41	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.01	Wt. n-Val.		0.050	
W.S. Elev (ft)	2681.39	Reach Len. (ft)	478.67	500.00	523.42
Crit W.S. (ft)		Flow Area (sq ft)		87.80	
E.G. Slope (ft/ft)	0.001267	Area (sq ft)		87.80	
Q Total (cfs)	76.40	Flow (cfs)		76.40	
Top Width (ft)	117.64	Top Width (ft)		117.64	
Vel Total (ft/s)	0.87	Avg. Vel. (ft/s)		0.87	
Max Chl Dpth (ft)	1.39	Hydr. Depth (ft)		0.75	
Conv. Total (cfs)	2146.6	Conv. (cfs)		2146.6	
Length Wtd. (ft)	500.62	Wetted Per. (ft)		117.68	
Min Ch El (ft)	2680.00	Shear (lb/sq ft)		0.06	
Alpha	1.00	Stream Power (lb/ft s)		0.05	
Frctn Loss (ft)	1.24	Cum Volume (acre-ft)	0.05	7.63	0.39
C & E Loss (ft)	0.00	Cum SA (acres)	0.77	28.10	2.42

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 14500

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2685.21	17.82	2685	34.1	2684.83	124.67	2683.89	185.92	2683.26
248.51	2682.65	293.46	2682.28	478.38	2680.65	511.56	2680.35	521.41	2680.28
554.64	2680.02	562.82	2680.018	598.65	2680.01	647.48	2680	685.27	2679.99
703.72	2679.98	786.83	2679.94	812.82	2679.93	834.9	2679.92	871.73	2679.91
905.74	2679.9	961.82	2679.865	969.6	2679.86	978.75	2679.9	1001.65	2680
1007.79	2680.03	1107.12	2680.39	1117.13	2680.38	1122.15	2680.39	1128.71	2680.4
1135.96	2680.41	1155.59	2680.44	1161.5	2680.45	1168.74	2680.46	1184.32	2680.48
1189.86	2680.5	1197.8	2680.51	1205.58	2680.53	1220.55	2680.54	1231.09	2680.56
1235.29	2680.57	1251.16	2680.59	1255.91	2680.61	1271.32	2680.63	1276.62	2680.65
1285.71	2680.66	1291.16	2680.69	1374.74	2682.83	1400	2683.42		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	562.8	.05	961.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
562.8	961.8	122.25	100	71.9	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2680.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.100	0.050	0.100
W.S. Elev (ft)	2680.16	Reach Len. (ft)	122.25	100.00	71.90
Crit W.S. (ft)		Flow Area (sq ft)	2.36	82.48	12.77
E.G. Slope (ft/ft)	0.006909	Area (sq ft)	2.36	82.48	12.77
Q Total (cfs)	76.40	Flow (cfs)	0.59	71.22	4.59
Top Width (ft)	506.19	Top Width (ft)	25.82	399.00	81.37
Vel Total (ft/s)	0.78	Avg. Vel. (ft/s)	0.25	0.86	0.36
Max Chl Dpth (ft)	0.30	Hydr. Depth (ft)	0.09	0.21	0.16
Conv. Total (cfs)	919.2	Conv. (cfs)	7.1	856.9	55.2

Length Wtd. (ft)	99.24	Wetted Per. (ft)	25.82	399.00	81.37
Min Ch El (ft)	2679.87	Shear (lb/sq ft)	0.04	0.09	0.07
Alpha	1.15	Stream Power (lb/ft s)	0.01	0.08	0.02
Frctn Loss (ft)	1.53	Cum Volume (acre-ft)	0.04	6.65	0.32
C & E Loss (ft)	0.01	Cum SA (acres)	0.63	25.13	1.93

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 14400

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2681.92	16.2	2681.78	82.15	2681.26	101.56	2681.07	105.2	2681.04
109.88	2680.99	206.12	2680.03	212.18	2680.02	229.82	2680	247.13	2679.97
249.28	2679.96	252.6	2679.95	260.09	2679.93	262.66	2679.92	267.65	2679.91
276.23	2679.88	280.56	2679.86	298.8	2679.6	305.55	2679.51	393.23	2678.55
399.82	2678.51	422.34	2678.18	442.13	2678.08	479.6	2678.28	523.1	2678.58
524.53	2678.56	527.39	2678.61	537.63	2678.8	549.09	2679.04	564.11	2679.22
565.07	2679.24	587.34	2679.26	591.35	2679.32	594.85	2679.35	595.76	2679.36
613.63	2679.35	631.6	2679.39	647.12	2679.5	671.72	2679.57	697.59	2679.6
704.42	2679.69	708.3	2679.71	709.19	2679.72	726.56	2679.67	730.3	2679.73
739.1	2679.85	743.04	2679.88	749.41	2680	789.74	2679.92	805.78	2679.85
817.25	2679.89	840.8	2680	854.07	2680.05	858.19	2680.08	864.88	2680.11
877.93	2680.14	884.51	2680.18	887.48	2680.19	900	2680.24		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	298.8	.05	708.3	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
298.8	708.3	265	200	56.74	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2678.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.050	
W.S. Elev (ft)	2678.51	Reach Len. (ft)	265.00	200.00	56.74
Crit W.S. (ft)	2678.51	Flow Area (sq ft)		26.99	
E.G. Slope (ft/ft)	0.060679	Area (sq ft)		26.99	
Q Total (cfs)	76.40	Flow (cfs)		76.40	
Top Width (ft)	112.29	Top Width (ft)		112.29	
Vel Total (ft/s)	2.83	Avg. Vel. (ft/s)		2.83	
Max Chl Dpth (ft)	0.43	Hydr. Depth (ft)		0.24	
Conv. Total (cfs)	310.2	Conv. (cfs)		310.2	
Length Wtd. (ft)	200.00	Wetted Per. (ft)		112.29	
Min Ch El (ft)	2678.08	Shear (lb/sq ft)		0.91	
Alpha	1.00	Stream Power (lb/ft s)		2.58	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	0.04	6.53	0.31
C & E Loss (ft)	0.03	Cum SA (acres)	0.60	24.54	1.86

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 14200

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2678.02	113.91	2676.46	137.72	2676.18	137.9	2676.17	160.82	2675.98
173.82	2675.83	180.32	2675.75	186.11	2675.69	188.63	2675.67	192.37	2675.63
198.94	2675.58	204.16	2675.54	210.91	2675.48	234.04	2675.22	236.93	2675.2
241.86	2675.18	245.97	2675.17	255.91	2675	286.11	2674.97	309.29	2674.99
311.39	2675	320.24	2675.02	334.87	2675.35	343.52	2675.53	346.62	2675.57
350.33	2675.63	354.15	2675.71	356.49	2675.75	357.23	2675.77	365.41	2675.91
367.28	2675.96	379.2	2676.14	401.06	2676.7	479.22	2678.31	508.2	2678.75
508.65	2678.76	525	2678.88	529.99	2678.93	552.43	2678.94	578.43	2678.76
583.3	2678.66	592	2678.7	595.99	2678.63	604.33	2678.62	608.47	2678.56
614.23	2678.51	618.21	2678.47	622.81	2678.38	634.83	2678.25	656.3	2677.9
681.12	2677.93	700	2678.09						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	137.9	.05	508.2	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.9	508.2	266.08	200	195.91	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2675.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.		0.050	
W.S. Elev (ft)	2675.81	Reach Len. (ft)	266.08	200.00	195.91
Crit W.S. (ft)		Flow Area (sq ft)		98.81	
E.G. Slope (ft/ft)	0.001549	Area (sq ft)		98.81	
Q Total (cfs)	76.40	Flow (cfs)		76.40	
Top Width (ft)	183.82	Top Width (ft)		183.82	
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)		0.77	
Max Chl Dpth (ft)	0.84	Hydr. Depth (ft)		0.54	
Conv. Total (cfs)	1941.1	Conv. (cfs)		1941.1	
Length Wtd. (ft)	200.76	Wetted Per. (ft)		183.83	
Min Ch El (ft)	2674.97	Shear (lb/sq ft)		0.05	
Alpha	1.00	Stream Power (lb/ft s)		0.04	
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	0.04	6.24	0.31
C & E Loss (ft)	0.00	Cum SA (acres)	0.60	23.87	1.86

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 14000

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2677.96	195.58	2676.22	296.51	2675.23	308.8	2675.21	317.13	2675.19
326	2675.18	337.19	2675.17	341.11	2675.16	346.16	2675.15	364.16	2675.12
370.8	2675.11	375.61	2675.1	380.7	2675.09	396.33	2675.06	432.84	2675.01
434.32	2675	488.59	2674.78	497	2674.74	506.16	2674.78	517.49	2674.8
528.95	2674.84	539.46	2674.88	547.66	2674.89	578.2	2675	578.87	2675.01
594.04	2675.07	613.8	2675.41	616.22	2675.44	639.99	2675.73	734.6	2676.18
780.2	2676.07	830.2	2676.56	843.91	2676.55	847.82	2676.63	858.24	2676.65
862.22	2676.72	871.99	2676.77	874.92	2676.8	883.25	2676.87	900	2676.85

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	380.7	.05	613.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
380.7	613.8	119.9	67	44.9	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (ft)	2675.27	Element			
Vel Head (ft)	0.02	Wt. n-Val.	0.100	0.050	
W.S. Elev (ft)	2675.25	Reach Len. (ft)	119.90	67.00	44.90
Crit W.S. (ft)		Flow Area (sq ft)	7.66	70.37	
E.G. Slope (ft/ft)	0.005965	Area (sq ft)	7.66	70.37	
Q Total (cfs)	76.40	Flow (cfs)	1.75	74.65	
Top Width (ft)	310.35	Top Width (ft)	86.43	223.92	
Vel Total (ft/s)	0.98	Avg. Vel. (ft/s)	0.23	1.06	
Max Chl Dpth (ft)	0.51	Hydr. Depth (ft)	0.09	0.31	
Conv. Total (cfs)	989.2	Conv. (cfs)	22.6	966.6	
Length Wtd. (ft)	67.74	Wetted Per. (ft)	86.43	223.92	
Min Ch El (ft)	2674.74	Shear (lb/sq ft)	0.03	0.12	
Alpha	1.15	Stream Power (lb/ft s)	0.01	0.12	
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	0.02	5.85	0.31
C & E Loss (ft)	0.01	Cum SA (acres)	0.33	22.93	1.86

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 13933

INPUT
Description:
Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2675.08	30.96	2675.03	43.03	2675	88.22	2674.15	93.6	2674.06
103.73	2673.89	105.67	2673.84	116.07	2673.91	123.29	2673.93	133.96	2673.9
144.3	2673.86	149.75	2673.82	215.98	2674.31	229.45	2674.57	236.34	2674.62

```
  249.47 2674.72  253.73 2674.75  264.87  2674.8  278.57 2674.85  310.41    2675
   328.4 2675.07  356.04 2675.19     400 2675.35

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1    93.6     .05   328.4      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          93.6   328.4            129.35     255  213.74             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2674.33    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.12    Wt. n-Val.                0.100      0.050
  W.S. Elev (ft)           2674.20    Reach Len. (ft)          129.35     255.00     213.74
  Crit W.S. (ft)           2674.20    Flow Area (sq ft)          0.61      26.79
  E.G. Slope (ft/ft)      0.058499    Area (sq ft)               0.61      26.79
  Q Total (cfs)              76.40    Flow (cfs)                 0.38      76.02
  Top Width (ft)            116.23    Top Width (ft)             8.24     107.99
  Vel Total (ft/s)            2.79    Avg. Vel. (ft/s)           0.63       2.84
  Max Chl Dpth (ft)           0.38    Hydr. Depth (ft)           0.07       0.25
  Conv. Total (cfs)          315.9    Conv. (cfs)                 1.6      314.3
  Length Wtd. (ft)          254.68    Wetted Per. (ft)           8.24     108.00
  Min Ch El (ft)           2673.82    Shear (lb/sq ft)           0.27       0.91
  Alpha                       1.03    Stream Power (lb/ft s)     0.17       2.57
  Frctn Loss (ft)             1.71    Cum Volume (acre-ft)       0.00       5.77       0.31
  C & E Loss (ft)             0.03    Cum SA (acres)             0.20      22.67       1.86


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical
         depth, the calculated water surface came back below critical depth.  This indicates that there
         is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 13678

INPUT
Description:
Station Elevation Data    num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    2675   22.84 2674.74   47.74 2674.41   190.4 2672.07  295.01 2670.36
  299.05 2670.35  329.92 2670.37  385.57 2670.18  386.15 2670.17   387.1 2670.16
  389.34 2670.15  391.74 2670.12  395.79 2670.11  405.09 2670.01  405.68    2670
  407.84 2669.99  409.81 2669.98  428.68 2669.89  444.81 2669.97  450.72    2670
  451.63 2670.01   501.6 2671.17  526.33 2671.74  567.89 2672.26  581.26 2672.22
   600.9 2672.27  614.96 2672.25  631.22 2672.45  652.89 2672.69   668.5  2672.9
  688.05 2673.07  699.94 2673.23  714.58 2673.36  741.03 2673.81   776.9 2674.55
  779.18 2674.58  796.24    2675     800 2675.01

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   190.4     .05   501.6      .1
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         190.4   501.6            260.2     178   197.2             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2670.68    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2670.67    Reach Len. (ft)          260.20     178.00     197.20
  Crit W.S. (ft)                      Flow Area (sq ft)                    89.96
  E.G. Slope (ft/ft)      0.002434    Area (sq ft)                         89.96
  Q Total (cfs)              76.40    Flow (cfs)                           76.40
  Top Width (ft)            204.03    Top Width (ft)                      204.03
  Vel Total (ft/s)            0.85    Avg. Vel. (ft/s)                      0.85
  Max Chl Dpth (ft)           0.78    Hydr. Depth (ft)                      0.44
  Conv. Total (cfs)         1548.7    Conv. (cfs)                        1548.7
  Length Wtd. (ft)          179.57    Wetted Per. (ft)                    204.04
  Min Ch El (ft)           2669.89    Shear (lb/sq ft)                      0.07
  Alpha                       1.00    Stream Power (lb/ft s)                0.06
  Frctn Loss (ft)             0.54    Cum Volume (acre-ft)        0.00      5.43       0.31
  C & E Loss (ft)             0.00    Cum SA (acres)              0.19     21.76       1.86


CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 13500

INPUT
Description:
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    2674    3.81 2673.96   28.05  2673.7   32.16 2673.66   65.23 2673.24
  252.22  2670.6  255.71 2670.59  262.52 2670.56  318.21 2670.51  326.99 2670.49
   339.8 2670.44  358.65 2670.35  371.24 2670.38  425.37 2670.16   432.3 2670.13
  448.33 2670.08  470.03    2670  504.65 2669.78  560.32  2669.5  587.79 2669.66
  645.94    2670  650.45 2670.02  656.12 2670.03  659.78 2670.04   663.32670.034
  671.78 2670.02  675.68 2670.01  678.21    2670  683.96 2669.99  693.43 2669.98
   767.7 2669.86  784.24 2669.88  860.93    2670  868.39 2670.11  869.46 2670.13
  903.94 2670.67  908.81 2670.73  936.42 2671.15  941.98 2671.22  952.46 2671.42
   967.6 2671.76  985.95 2672.05 1004.01 2672.52 1013.56 2672.69 1020.39 2672.82
 1046.75 2673.52 1053.63 2673.67 1074.38 2674.17 1080.22  2674.3 1084.32 2674.39
  1088.5 2674.44 1092.07 2674.48

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   432.3     .05   663.3      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         432.3   663.3           495.42     500   394.4             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2670.15    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.000      0.050      0.100
  W.S. Elev (ft)           2670.14    Reach Len. (ft)          495.42     500.00     394.40
  Crit W.S. (ft)           2669.91    Flow Area (sq ft)          0.01      73.92      40.26
  E.G. Slope (ft/ft)      0.003866    Area (sq ft)               0.01      73.92      40.26
  Q Total (cfs)              76.40    Flow (cfs)                 0.00      63.90      12.50
  Top Width (ft)            439.25    Top Width (ft)             1.63     231.00     206.61
```

```
  Vel Total (ft/s)            0.67    Avg. Vel. (ft/s)            0.02       0.86       0.31
  Max Chl Dpth (ft)           0.64    Hydr. Depth (ft)            0.00       0.32       0.19
  Conv. Total (cfs)         1228.8    Conv. (cfs)                  0.0     1027.6      201.1
  Length Wtd. (ft)           491.36   Wetted Per. (ft)            1.63     231.00     206.61
  Min Ch El (ft)            2669.50   Shear (lb/sq ft)                     0.08       0.05
  Alpha                        1.43   Stream Power (lb/ft s)               0.07       0.01
  Frctn Loss (ft)              4.99   Cum Volume (acre-ft)        0.00       5.10       0.22
  C & E Loss (ft)              0.01   Cum SA (acres)              0.18      20.87       1.39


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 13000

INPUT
Description:
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2670.06    1.86 2670.05    5.81 2670.04    7.93 2670.03   11.82 2670.02
   16.36    2670   17.85 2669.99   18.16 2669.98  315.57 2665.48  319.28 2665.47
  335.03 2665.38     340 2665.36  344.18 2665.35  351.39 2665.31  356.73  2665.3
  361.25 2665.28  369.07 2665.26  374.58 2665.25   378.4 2665.24  382.44 2665.22
  394.37  2665.2  401.37 2665.17  407.77 2665.16  428.13 2665.12  436.31 2665.09
   460.8 2665.06  465.53 2665.05  475.39 2665.06  501.31 2665.03  514.35    2665
  558.61 2664.82  580.25 2664.75  587.38 2664.71  589.66 2664.72  613.92 2664.83
  638.69    2665  655.16 2665.04   661.9 2665.05  665.89 2665.06  671.57 2665.05
  681.52 2665.06   689.8 2665.05  702.23 2665.07  709.72 2665.08  717.67 2665.09
  728.38 2665.11  741.29 2665.12  748.59 2665.14  762.61 2665.18  767.49 2665.19
  788.13 2665.26   796.82665.265  805.45 2665.27  811.12 2665.29  875.25 2666.07
  906.83 2666.12   945.1  2666.3  956.27 2666.39  969.08 2666.49  981.08 2666.59
  998.53 2666.76 1020.09 2666.97 1028.43 2667.05 1064.54  2667.4 1116.02 2667.92
 1120.11 2667.97 1148.29 2668.24 1186.92  2668.6    1200 2668.71

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   460.8     .05   796.8      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         460.8   796.8           115.82     200   270.9              .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2665.16    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.07    Wt. n-Val.                 0.100      0.050
  W.S. Elev (ft)           2665.09    Reach Len. (ft)           115.82     200.00     270.90
  Crit W.S. (ft)           2665.09    Flow Area (sq ft)           0.40      35.97
  E.G. Slope (ft/ft)      0.070358    Area (sq ft)                0.40      35.97
  Q Total (cfs)              76.40    Flow (cfs)                  0.10      76.30
  Top Width (ft)            282.54    Top Width (ft)             24.89     257.65
  Vel Total (ft/s)            2.10    Avg. Vel. (ft/s)            0.25       2.12
  Max Chl Dpth (ft)           0.38    Hydr. Depth (ft)            0.02       0.14
  Conv. Total (cfs)          288.0    Conv. (cfs)                  0.4      287.6
  Length Wtd. (ft)          199.94    Wetted Per. (ft)           24.89     257.66
  Min Ch El (ft)           2664.71    Shear (lb/sq ft)            0.07       0.61
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  Alpha                        1.02    Stream Power (lb/ft s)      0.02       1.30
  Frctn Loss (ft)              0.85    Cum Volume (acre-ft)        0.00       4.47       0.03
  C & E Loss (ft)              0.02    Cum SA (acres)              0.03      18.07       0.46


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical
         depth, the calculated water surface came back below critical depth.  This indicates that there
         is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 12800

INPUT
Description:
Station Elevation Data    num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  2665.2     6.8  2665.1   38.36    2665   66.99 2664.75   92.93 2664.52
   95.87  2664.5  124.12 2664.26     160 2663.94  163.42 2663.91  170.82 2663.85
  235.62 2662.84  242.24 2662.78  362.67 2661.02  381.69 2660.66   384.9 2660.57
  400.13 2660.17  406.22    2660  412.71 2659.99  420.53    2660  422.03 2660.03
  423.51 2660.06  451.04 2661.08  474.48 2661.44  477.85  2661.4  484.76 2661.52
  490.04 2661.61  546.35 2661.52  553.65 2661.54     689  2662.9     887 2664.89
  896.95 2664.91  910.76 2664.95  912.57 2664.96  920.22 2664.97  933.03    2665
  933.81 2665.01  939.91 2665.09    1000 2665.96

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     160     .05     689      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           160     689           111.24     300  297.09             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2661.39    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2661.38    Reach Len. (ft)           111.24     300.00     297.09
  Crit W.S. (ft)                      Flow Area (sq ft)                     89.74
  E.G. Slope (ft/ft)      0.001384    Area (sq ft)                          89.74
  Q Total (cfs)              76.40    Flow (cfs)                            76.40
  Top Width (ft)            132.78    Top Width (ft)                       132.78
  Vel Total (ft/s)            0.85    Avg. Vel. (ft/s)                      0.85
  Max Chl Dpth (ft)           1.39    Hydr. Depth (ft)                      0.68
  Conv. Total (cfs)          2053.6    Conv. (cfs)                         2053.6
  Length Wtd. (ft)          300.00    Wetted Per. (ft)                     132.82
  Min Ch El (ft)           2659.99    Shear (lb/sq ft)                      0.06
  Alpha                       1.00    Stream Power (lb/ft s)                0.05
  Frctn Loss (ft)             1.12    Cum Volume (acre-ft)                  4.18       0.03
  C & E Loss (ft)             0.00    Cum SA (acres)                       17.17       0.46


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
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         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 12500

INPUT
Description:
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2665.21   16.79    2665   40.66 2664.72   88.74 2664.19  138.64 2663.67
  153.95 2663.52  167.05  2663.4  206.13 2663.01  223.62 2662.85  239.41 2662.71
   245.7 2662.65  253.79 2662.57  270.18 2662.43   292.9 2662.23  311.99 2662.07
   422.6 2660.34  428.78 2660.33  435.85 2660.32  445.14 2660.29   452.6 2660.28
  494.19 2660.24  513.39 2660.22  559.15 2660.21  592.61 2660.18   603.4 2660.17
  615.47 2660.15  629.73 2660.16     664 2660.11  672.99 2660.09  682.82 2660.07
  693.36 2660.06   713.8 2660.03  717.31 2660.02  730.64    2660  754.53 2659.86
  758.75 2659.85  765.47 2659.87  772.14  2659.9  782.41 2659.95  785.86 2659.96
  799.11    2660  805.26 2660.01  811.16 2660.02  814.82 2660.03  824.59 2660.04
  959.25 2661.35  981.96 2661.56 1002.59 2661.79  1019.2 2661.94 1072.09 2662.43
 1119.14 2662.83 1128.76  2662.9 1157.87 2663.27 1195.49 2663.75 1201.69 2663.81
 1215.25 2663.94 1226.23 2664.04 1276.26 2664.76 1278.41 2664.77 1279.98 2664.79
 1281.27  2664.8 1295.84    2665 1299.09 2665.02    1300 2665.03

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   245.7     .05  1019.2      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         245.7  1019.2           744.67     200   133.7              .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2660.28    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.03    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2660.25    Reach Len. (ft)           744.67     200.00     133.70
  Crit W.S. (ft)           2660.19    Flow Area (sq ft)                     53.55
  E.G. Slope (ft/ft)      0.029146    Area (sq ft)                          53.55
  Q Total (cfs)              76.40    Flow (cfs)                            76.40
  Top Width (ft)            359.03    Top Width (ft)                       359.03
  Vel Total (ft/s)            1.43    Avg. Vel. (ft/s)                      1.43
  Max Chl Dpth (ft)           0.40    Hydr. Depth (ft)                      0.15
  Conv. Total (cfs)          447.5    Conv. (cfs)                          447.5
  Length Wtd. (ft)          200.00    Wetted Per. (ft)                     359.04
  Min Ch El (ft)           2659.85    Shear (lb/sq ft)                      0.27
  Alpha                       1.00    Stream Power (lb/ft s)                0.39
  Frctn Loss (ft)             2.99    Cum Volume (acre-ft)                  3.69       0.03
  C & E Loss (ft)             0.00    Cum SA (acres)                       15.48       0.46


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION
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RIVER: Secondary
REACH: Secondary RS: 12300

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2660.03	42.7	2660.01	47.72	2660	61.56	2659.99	67.9	2659.98
104.08	2659.85	166.74	2659.69	168.01	2659.68	169.46	2659.67	195.56	2659.62
197.4	2659.61	199.36	2659.59	201.57	2659.58	204.2	2659.56	207.29	2659.53
225.64	2659.42	229.77	2659.39	234.66	2659.34	240.4	2659.28	247.83	2659.2
255.08	2659.11	258.23	2659.12	266.38	2659.14	275.41	2659.2	281.11	2659.21
295.36	2659.13	314.57	2658.93	316.75	2658.89	318.13	2658.86	319.7	2658.82
322.22	2658.77	326.02	2658.8	328.63	2658.74	331.57	2658.68	334.83	2658.61
337.27	2658.55	341.2	2658.44	347.08	2658.36	350.74	2658.26	360.17	2657.95
373.93	2657.45	374.58	2657.43	378.63	2657.37	390.26	2657.14	407.72	2656.78
420.58	2656.51	479.09	2656.88	491.31	2657.23	491.85	2657.24	503.64	2657.5
524.25	2657.97	554.98	2658.73	559.12	2658.84	579.32	2659.37	581.61	2659.44
605.05	2660	607.48	2660.01	674	2660.77	692.38	2660.98	716.7	2661.33
774.21	2662.01	808.56	2662.41	824.62	2662.59	832.86	2662.68	885.65	2663.48
891.36	2663.55	982.53	2664.96	985.13	2664.97	989.1	2665	1000	2665.19

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	0	.05	674	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
0	674	114.08	300	367.92	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2657.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.		0.050	
W.S. Elev (ft)	2657.24	Reach Len. (ft)	114.08	300.00	367.92
Crit W.S. (ft)		Flow Area (sq ft)		46.69	
E.G. Slope (ft/ft)	0.009093	Area (sq ft)		46.69	
Q Total (cfs)	76.40	Flow (cfs)		76.40	
Top Width (ft)	106.39	Top Width (ft)		106.39	
Vel Total (ft/s)	1.64	Avg. Vel. (ft/s)		1.64	
Max Chl Dpth (ft)	0.73	Hydr. Depth (ft)		0.44	
Conv. Total (cfs)	801.2	Conv. (cfs)		801.2	
Length Wtd. (ft)	300.00	Wetted Per. (ft)		106.41	
Min Ch El (ft)	2656.51	Shear (lb/sq ft)		0.25	
Alpha	1.00	Stream Power (lb/ft s)		0.41	
Frctn Loss (ft)	1.74	Cum Volume (acre-ft)		3.46	0.03
C & E Loss (ft)	0.01	Cum SA (acres)		14.41	0.46

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Secondary
REACH: Secondary RS: 12000

INPUT

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Description:
Station Elevation Data    num=      77
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2659.99    7.36 2659.98     9.5 2659.97   32.35 2659.93   35.26 2659.92
   141.9 2659.16  266.17 2658.56  278.98 2658.54  282.09 2658.53   297.5 2658.52
  314.21  2658.5  321.14 2658.48  337.88  2658.4   356.7 2658.29  372.74 2658.25
  384.66 2658.19  397.39 2658.13  413.66 2658.03  426.08 2657.95  465.44  2657.8
   492.8 2657.73  501.61 2657.71  510.94 2657.64  521.66 2657.57     536 2657.54
  547.89 2657.46  560.62 2657.37  574.93 2657.26  591.94 2657.13  611.99 2656.96
  619.94 2656.92  642.03 2656.72  668.17 2656.47  696.98 2656.17  755.17 2656.15
  788.93 2656.09  791.17  2656.1  817.85 2656.04  892.44 2655.28  898.41 2655.19
  902.88 2655.17   908.3 2655.16  913.45 2655.15   923.3  2655.1  937.19 2655.03
  938.46 2655.02  946.43    2655  955.17 2654.96  981.18 2654.87  984.79 2654.88
 1017.68    2655 1019.11 2655.02 1056.59  2655.6  1063.6  2655.7 1094.79 2656.18
 1117.58  2656.5 1136.85 2656.77 1171.11 2657.21  1189.2 2657.44  1195.2 2657.53
 1207.98  2657.7  1232.2 2658.06 1272.06 2658.66  1294.9 2658.97 1343.93  2659.7
 1348.43 2659.77    1365    2660 1400.82 2660.51 1442.86 2661.09 1447.61 2661.16
 1480.84  2661.6 1505.07 2661.93 1522.51 2662.17  1530.7 2662.25 1547.95 2662.47
 1567.71 2662.68    1600 2662.84

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   492.8     .05  1195.2      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         492.8  1195.2           522.83     500  495.25             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2655.53    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2655.51    Reach Len. (ft)          522.83     500.00     495.25
  Crit W.S. (ft)           2655.23    Flow Area (sq ft)                    73.69
  E.G. Slope (ft/ft)      0.004032    Area (sq ft)                         73.69
  Q Total (cfs)              76.40    Flow (cfs)                           76.40
  Top Width (ft)            180.98    Top Width (ft)                      180.98
  Vel Total (ft/s)            1.04    Avg. Vel. (ft/s)                      1.04
  Max Chl Dpth (ft)           0.64    Hydr. Depth (ft)                      0.41
  Conv. Total (cfs)         1203.2    Conv. (cfs)                         1203.2
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    180.99
  Min Ch El (ft)           2654.87    Shear (lb/sq ft)                      0.10
  Alpha                       1.00    Stream Power (lb/ft s)                0.11
  Frctn Loss (ft)             5.19    Cum Volume (acre-ft)                  3.04       0.03
  C & E Loss (ft)             0.01    Cum SA (acres)                       13.42       0.46


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 11500

INPUT
Description:
Station Elevation Data    num=      79
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
       0 2654.48    5.84 2654.45   11.17  2654.4   17.47 2654.35   24.31 2654.28
    48.7 2654.12   72.64 2653.97   77.37 2653.92  101.37 2653.77  103.64 2653.75
  126.17 2653.61   129.8 2653.57  151.85 2653.42  160.32 2653.34  182.78 2653.18
  199.84 2653.03  221.94 2652.86  248.22 2652.64  268.26 2652.48  283.18 2652.35
  316.05 2652.09  325.42 2652.01   332.8 2651.95   357.2 2651.77  366.92 2651.68
  409.03 2651.32  461.85 2650.83     500 2650.44  526.37 2650.43  540.57 2650.44
  621.91 2650.16  634.37 2650.09  643.83 2650.08  645.22 2650.07  661.34 2650.05
   665.9 2650.04  670.14 2650.03  681.27 2650.02  692.62    2650  699.72 2649.99
  706.99    2650  709.51 2650.01  719.23 2650.02  723.27 2650.03  732.01 2650.04
  746.13 2650.06  749.24 2650.07  766.59 2650.09   768.5  2650.1  783.66 2650.22
  866.55 2650.74   898.6 2650.76  901.67  2650.8  908.86 2650.88  937.06 2650.94
   946.9 2651.06  965.21 2651.14  974.51 2651.24  991.82 2651.36 1015.08 2651.56
  1021.8 2651.63 1026.74 2651.68 1050.87 2651.89 1069.23 2652.07 1088.37 2652.25
 1110.11 2652.47 1122.32 2652.58 1140.02 2652.76 1146.77 2652.83 1157.27 2652.93
 1172.54  2653.1 1191.53 2653.31 1208.24 2653.47 1230.34 2653.71 1243.77 2653.83
 1267.02 2654.08 1273.75 2654.13 1296.51 2654.38    1300 2654.41

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   332.8     .05  1021.8      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         332.8  1021.8           326.66     300  245.75             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2650.34    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.08    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2650.25    Reach Len. (ft)          326.66     300.00     245.75
  Crit W.S. (ft)           2650.25    Flow Area (sq ft)                    32.72
  E.G. Slope (ft/ft)      0.066301    Area (sq ft)                         32.72
  Q Total (cfs)              76.40    Flow (cfs)                           76.40
  Top Width (ft)            194.13    Top Width (ft)                      194.13
  Vel Total (ft/s)            2.33    Avg. Vel. (ft/s)                      2.33
  Max Chl Dpth (ft)           0.26    Hydr. Depth (ft)                      0.17
  Conv. Total (cfs)          296.7    Conv. (cfs)                          296.7
  Length Wtd. (ft)                    Wetted Per. (ft)                    194.13
  Min Ch El (ft)           2649.99    Shear (lb/sq ft)                      0.70
  Alpha                       1.00    Stream Power (lb/ft s)                1.63
  Frctn Loss (ft)                     Cum Volume (acre-ft)                  2.43       0.03
  C & E Loss (ft)                     Cum SA (acres)                       11.27       0.46


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 11200

INPUT
Description:
Station Elevation Data    num=      66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2650.63    4.54 2650.58    8.03 2650.56   19.52 2650.45   22.27 2650.43
```

```
   46.67  2650.2   48.03 2650.19    70.1    2650   72.14 2649.99  102.35 2649.76
  172.32 2649.26  230.06 2648.87  270.09 2648.61  285.67 2648.45   305.5 2648.31
  308.28 2648.29   325.4 2648.14  340.87 2648.01   354.4 2647.89  371.51 2647.75
  384.49 2647.64  403.37 2647.46  421.94 2647.31  474.74 2646.83  479.54 2646.79
   509.7 2646.81  525.84 2646.78  535.11  2646.8  543.28 2646.81  548.92 2646.82
  576.21 2646.97  609.54 2647.23   623.6 2647.22  626.08 2647.25  643.31  2647.3
  648.22 2647.33  653.27 2647.35  673.79 2647.45   691.2 2647.56  694.06 2647.55
  704.73 2647.63  713.49 2647.68  724.83 2647.73  757.49 2647.77  790.02 2647.74
  839.26 2647.62  885.45 2647.57  911.66 2647.69  940.78 2647.86  961.02 2648.01
  992.65 2648.16 1006.95 2648.28 1016.07 2648.36  1016.6 2648.37 1032.59  2648.5
 1070.62 2648.79 1083.11 2648.87 1129.69 2649.23 1137.34 2649.29 1173.31 2649.56
 1210.83 2649.88 1223.75    2650 1259.94 2650.53 1265.86 2650.61 1273.27 2650.69
    1300 2651.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   305.5     .05  1016.6      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         305.5  1016.6           272.93     200  249.94             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2647.38    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2647.37    Reach Len. (ft)          272.93     200.00     249.94
  Crit W.S. (ft)           2647.08    Flow Area (sq ft)                    84.74
  E.G. Slope (ft/ft)      0.003745    Area (sq ft)                         84.74
  Q Total (cfs)              76.40    Flow (cfs)                           76.40
  Top Width (ft)            242.80    Top Width (ft)                      242.80
  Vel Total (ft/s)            0.90    Avg. Vel. (ft/s)                      0.90
  Max Chl Dpth (ft)           0.59    Hydr. Depth (ft)                      0.35
  Conv. Total (cfs)         1248.4    Conv. (cfs)                         1248.4
  Length Wtd. (ft)          200.00    Wetted Per. (ft)                    242.81
  Min Ch El (ft)           2646.78    Shear (lb/sq ft)                      0.08
  Alpha                       1.00    Stream Power (lb/ft s)                0.07
  Frctn Loss (ft)             2.00    Cum Volume (acre-ft)                  2.03       0.03
  C & E Loss (ft)             0.00    Cum SA (acres)                        9.76       0.46


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 11000

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2650.15    6.23 2650.08    7.29 2650.07    15.1    2650   17.49 2649.99
   54.01 2649.64   55.38 2649.63  103.19 2649.19  107.87 2649.16  112.95 2649.12
  120.02 2649.06  127.45 2649.01  180.85 2648.49  194.53  2648.4  215.51 2648.25
  373.68 2646.85     500 2645.67  573.32 2645.54  609.92  2645.4  616.73 2645.41
  623.57 2645.42  626.56 2645.43  658.76 2645.36  688.89 2645.34   716.32645.347
  726.73 2645.35  728.34 2645.34  749.09 2645.37  796.39 2645.34  844.85 2645.26
```

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  869.71 2645.17  870.59 2645.16  874.21 2645.17  876.87 2645.18  899.84 2645.11
  966.17  2645.2  998.47 2645.31 1019.15 2645.39 1036.21 2645.45 1058.83 2645.49
 1127.45 2645.39 1201.42 2645.14 1204.11 2645.13 1206.41 2645.12  1208.9 2645.13
 1239.84 2645.07  1241.7 2645.08 1287.77 2645.24 1290.32 2645.26  1324.3 2645.45
 1332.87  2645.5 1336.51 2645.51 1340.13 2645.53 1345.47 2645.57 1370.93 2645.74
 1378.11 2645.79 1388.54  2645.9 1402.57 2646.06 1430.25 2646.29 1471.38 2646.62
 1491.59 2646.87 1528.15 2647.19 1549.39 2647.37 1580.82 2647.71 1596.54 2647.86
 1628.89 2648.16 1645.62 2648.33 1661.77 2648.47 1675.95 2648.55 1691.16  2648.7
    1700 2648.74 1701.72 2648.75 1709.04  2648.8 1716.64 2648.83  1736.1 2648.82
 1746.16 2648.88 1763.39 2648.98  1812.6 2649.57 1831.34 2649.89    1842 2649.95
 1845.08 2649.98  1846.6 2649.99 1849.46    2650 1852.05 2650.01    1900 2650.66

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   716.3     .05  1324.3      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         716.3  1324.3           448.52     500  552.14             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2645.37    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.06    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2645.31    Reach Len. (ft)           448.52     500.00     552.14
  Crit W.S. (ft)           2645.31    Flow Area (sq ft)                     38.89
  E.G. Slope (ft/ft)      0.075066    Area (sq ft)                          38.89
  Q Total (cfs)              76.40    Flow (cfs)                            76.40
  Top Width (ft)            328.09    Top Width (ft)                       328.09
  Vel Total (ft/s)            1.96    Avg. Vel. (ft/s)                      1.96
  Max Chl Dpth (ft)           0.24    Hydr. Depth (ft)                      0.12
  Conv. Total (cfs)          278.9    Conv. (cfs)                          278.9
  Length Wtd. (ft)          500.14    Wetted Per. (ft)                     328.09
  Min Ch El (ft)           2645.07    Shear (lb/sq ft)                      0.56
  Alpha                       1.00    Stream Power (lb/ft s)                1.09
  Frctn Loss (ft)             4.09    Cum Volume (acre-ft)                  1.74       0.03
  C & E Loss (ft)             0.02    Cum SA (acres)                        8.45       0.46


Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical
         depth, the calculated water surface came back below critical depth.  This indicates that there
         is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 10500

INPUT
Description:
Station Elevation Data    num=      83
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2645.07    3.46 2645.06    9.07 2645.05   11.65 2645.04   19.55 2645.03
   36.57 2645.02   42.66    2645   56.12 2644.88   56.83 2644.87   58.92 2644.85
```

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   61.93 2644.81   65.65 2644.77   124.7 2644.08  147.76 2643.79  192.53 2643.21
  290.17 2641.89  338.15 2641.27  362.14 2640.94  382.99 2640.78  411.89 2640.57
  414.74 2640.55  453.21 2640.27  495.88    2640  501.99 2639.99   537.9 2639.88
   559.3 2639.83  572.44 2639.81  603.58 2639.74  631.93 2639.68  657.78  2639.6
  681.46 2639.53  703.03 2639.48  733.37 2639.43  778.31 2639.35  819.12 2639.28
  845.35 2639.27  872.88 2639.24  899.96 2639.22  956.96  2639.2  1022.9 2639.16
  1089.7 2639.42 1175.17 2639.75 1181.94 2639.79 1184.36  2639.8 1207.99 2639.86
 1229.34 2639.89 1249.44 2639.93 1260.38 2639.96 1272.33 2639.97 1289.08    2640
 1323.98 2640.75 1352.93 2641.34 1394.04 2642.22 1415.89  2642.6 1468.77 2643.68
 1498.12  2644.2 1511.11 2644.42 1526.09 2644.59 1527.88 2644.61 1531.22 2644.65
    1534 2644.68 1535.09 2644.69 1537.01  2644.7  1552.9 2644.87  1553.3 2644.88
 1559.76 2644.94 1568.07    2645 1572.64 2645.19 1573.52 2645.24 1582.34 2645.55
 1584.01 2645.65 1592.18 2645.89 1593.17 2645.87 1594.65    2646  1602.7 2646.19
 1609.23 2645.52 1620.79  2645.6 1633.53 2645.71  1661.3 2646.32 1675.01 2646.46
 1677.44 2646.58 1689.37 2646.71    1700 2646.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   559.3     .05  1089.7      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         559.3  1089.7           513.34     500  486.07              .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2639.58    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                           0.050      0.100
  W.S. Elev (ft)           2639.57    Reach Len. (ft)           513.34     500.00     486.07
  Crit W.S. (ft)           2639.36    Flow Area (sq ft)                    113.33       2.83
  E.G. Slope (ft/ft)      0.002930    Area (sq ft)                         113.33       2.83
  Q Total (cfs)              76.40    Flow (cfs)                            76.00       0.40
  Top Width (ft)            459.34    Top Width (ft)                       421.03      38.31
  Vel Total (ft/s)            0.66    Avg. Vel. (ft/s)                       0.67       0.14
  Max Chl Dpth (ft)           0.41    Hydr. Depth (ft)                       0.27       0.07
  Conv. Total (cfs)         1411.4    Conv. (cfs)                          1404.0        7.4
  Length Wtd. (ft)          499.96    Wetted Per. (ft)                     421.03      38.31
  Min Ch El (ft)           2639.16    Shear (lb/sq ft)                       0.05       0.01
  Alpha                       1.03    Stream Power (lb/ft s)                 0.03       0.00
  Frctn Loss (ft)             4.06    Cum Volume (acre-ft)                   0.87       0.02
  C & E Loss (ft)             0.01    Cum SA (acres)                         4.15       0.21


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: Secondary
REACH: Secondary          RS: 10000

INPUT
Description:
Station Elevation Data    num=     127
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  2640.2   36.58 2640.02    50.2    2640   54.33 2639.99   62.01 2639.94
    93.4 2639.77   98.45 2639.76  103.86 2639.75  122.01 2639.67  122.48 2639.66
  137.36 2639.57  147.81 2639.53  158.65 2639.48  160.72 2639.47  163.11 2639.46
   165.5 2639.44  168.09 2639.43   170.9 2639.41  173.87 2639.39  176.86 2639.37
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  199.08 2639.22  202.88 2639.19  242.25 2638.93  277.09 2638.71  282.77 2638.68
  326.26 2638.39  333.45 2638.35  490.47 2637.24  631.17 2636.11     692 2635.81
  757.26 2635.49  758.29 2635.48  763.85 2635.46  764.74 2635.45  771.27 2635.42
   777.9 2635.38  779.23 2635.37  782.33 2635.35  784.68 2635.34  788.12 2635.33
  789.31 2635.32  791.84 2635.31  794.34  2635.3   799.9 2635.29  804.58 2635.28
  817.89 2635.27  824.48 2635.26  827.26 2635.27  829.97 2635.26  839.28 2635.28
   927.2 2635.34 1012.33 2635.29 1036.32 2635.28 1038.27 2635.29 1053.29 2635.33
 1069.75 2635.44 1079.38 2635.46 1083.31  2635.5 1089.95 2635.52 1096.53 2635.55
 1099.75 2635.56 1160.44 2635.72  1217.7 2635.81 1221.15 2635.85 1234.47 2635.86
    1236 2635.88 1238.92  2635.9    1247 2635.93 1248.38 2635.94 1259.14 2636.01
 1263.99 2636.06 1268.75 2636.07 1336.23 2636.31 1398.15  2636.4 1399.11 2636.39
 1401.61  2636.4 1404.16 2636.42 1412.94 2636.41 1416.73 2636.43 1423.16 2636.48
 1430.07 2636.53 1432.17 2636.55 1434.04 2636.56 1439.56 2636.61 1442.57 2636.62
 1445.64 2636.65  1451.2 2636.69 1456.95 2636.72 1460.97 2636.76  1464.9 2636.79
 1469.48 2636.83 1473.95 2636.86 1477.84  2636.9 1481.66 2636.93 1485.54 2636.96
  1488.8 2636.99 1492.24    2637 1492.77 2637.01 1499.47 2637.03 1506.17 2637.06
 1506.78 2637.07 1562.03 2637.42 1644.44 2638.08 1667.73 2638.35  1686.7 2638.44
 1693.45 2638.49 1696.03 2638.51 1711.94 2638.66 1714.35 2638.68 1718.59 2638.72
 1735.89 2638.84  1756.8  2639.1 1771.24  2639.2 1859.83  2639.9 1862.82 2639.89
 1865.04  2639.9 1873.86 2639.91 1884.83 2639.92 1892.44 2639.93 1907.07 2639.92
 1928.58 2639.98 1934.48    2640 1961.67 2640.92 1987.33 2641.76 1987.75 2641.78
 1988.07 2641.79    2000 2642.21

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     692     .05    1236      .1

Bank Sta: Left   Right    Coeff Contr.   Expan.
           692    1236             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2635.50    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.06    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2635.44    Reach Len. (ft)
  Crit W.S. (ft)           2635.44    Flow Area (sq ft)                    37.99
  E.G. Slope (ft/ft)      0.072769    Area (sq ft)                         37.99
  Q Total (cfs)              76.40    Flow (cfs)                           76.40
  Top Width (ft)            302.39    Top Width (ft)                      302.39
  Vel Total (ft/s)            2.01    Avg. Vel. (ft/s)                      2.01
  Max Chl Dpth (ft)           0.18    Hydr. Depth (ft)                      0.13
  Conv. Total (cfs)          283.2    Conv. (cfs)                          283.2
  Length Wtd. (ft)                    Wetted Per. (ft)                    302.39
  Min Ch El (ft)           2635.26    Shear (lb/sq ft)                      0.57
  Alpha                       1.00    Stream Power (lb/ft s)                1.15
  Frctn Loss (ft)                     Cum Volume (acre-ft)
  C & E Loss (ft)                     Cum SA (acres)



SUMMARY OF MANNING'S N VALUES

River:Secondary

      Reach          River Sta.       n1        n2        n3

 Secondary            15000               .1       .05        .1
 Secondary            14500               .1       .05        .1
 Secondary            14400               .1       .05        .1
 Secondary            14200               .1       .05        .1
```

Secondary	14000	.1	.05	.1
Secondary	13933	.1	.05	.1
Secondary	13678	.1	.05	.1
Secondary	13500	.1	.05	.1
Secondary	13000	.1	.05	.1
Secondary	12800	.1	.05	.1
Secondary	12500	.1	.05	.1
Secondary	12300	.1	.05	.1
Secondary	12000	.1	.05	.1
Secondary	11500	.1	.05	.1
Secondary	11200	.1	.05	.1
Secondary	11000	.1	.05	.1
Secondary	10500	.1	.05	.1
Secondary	10000	.1	.05	.1

SUMMARY OF REACH LENGTHS

River: Secondary

Reach	River Sta.	Left	Channel	Right
Secondary	15000	478.67	500	523.42
Secondary	14500	122.25	100	71.9
Secondary	14400	265	200	56.74
Secondary	14200	266.08	200	195.91
Secondary	14000	119.9	67	44.9
Secondary	13933	129.35	255	213.74
Secondary	13678	260.2	178	197.2
Secondary	13500	495.42	500	394.4
Secondary	13000	115.82	200	270.9
Secondary	12800	111.24	300	297.09
Secondary	12500	744.67	200	133.7
Secondary	12300	114.08	300	367.92
Secondary	12000	522.83	500	495.25
Secondary	11500	326.66	300	245.75
Secondary	11200	272.93	200	249.94
Secondary	11000	448.52	500	552.14
Secondary	10500	513.34	500	486.07
Secondary	10000			

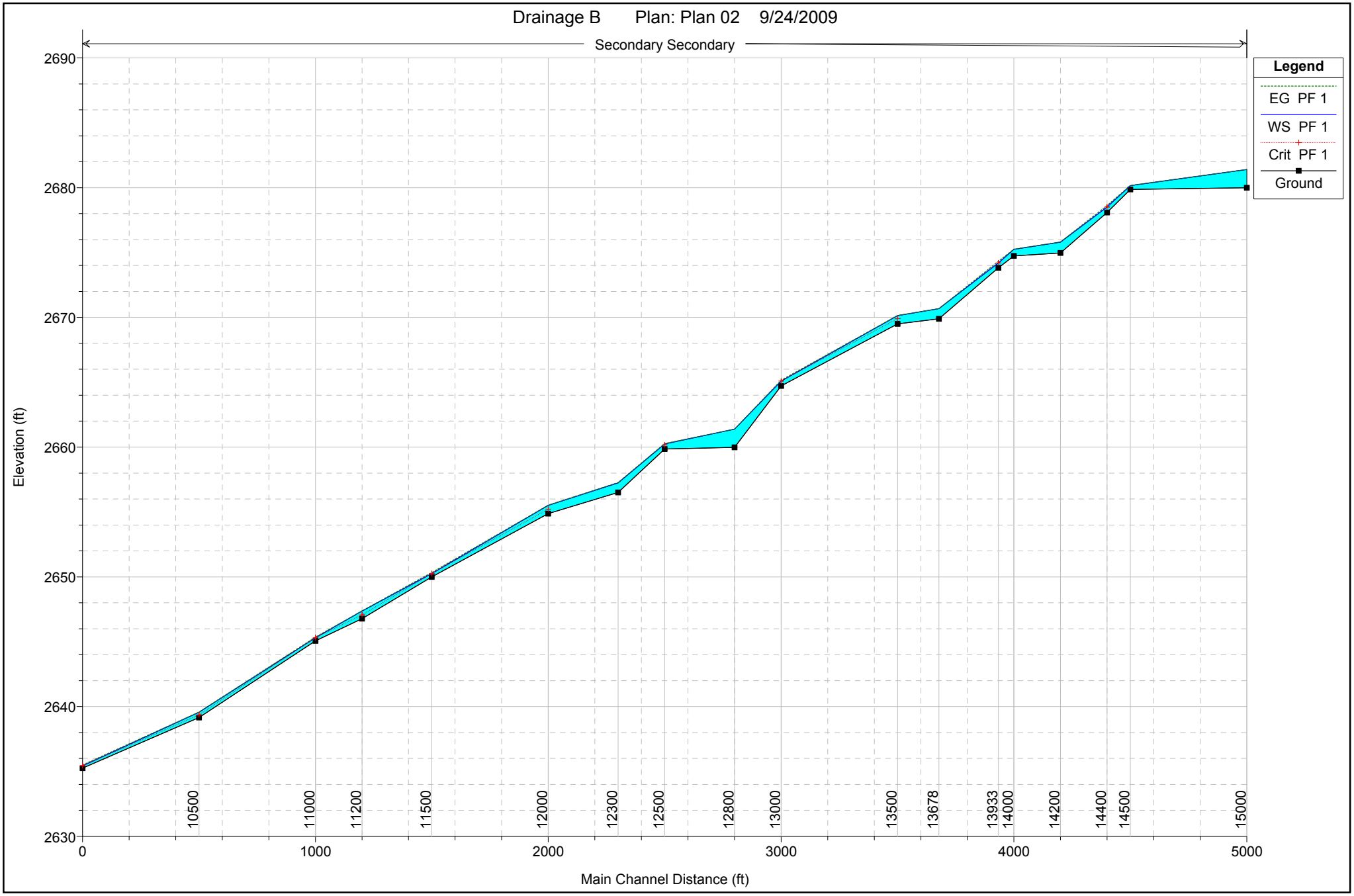
SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Secondary

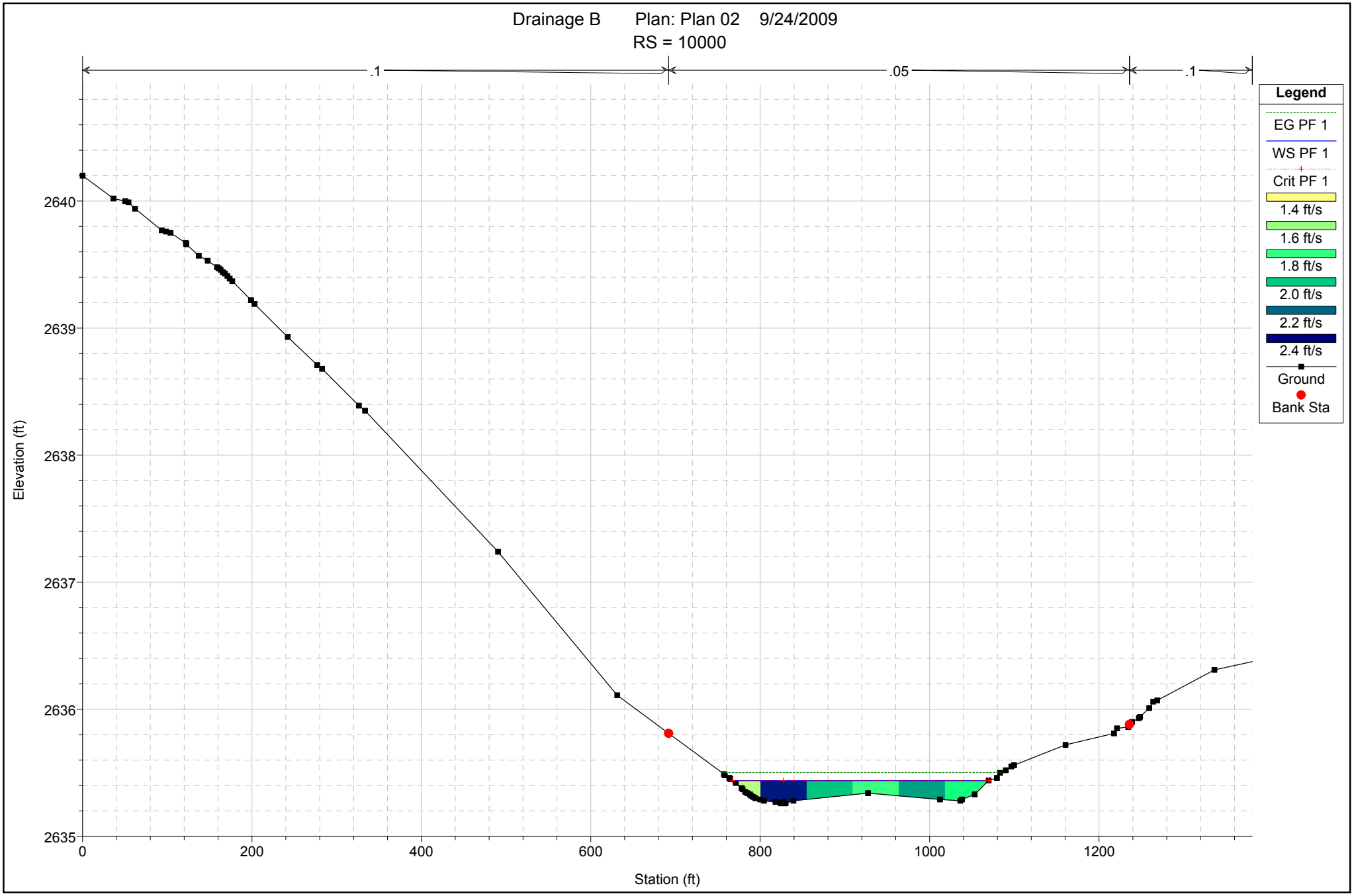
Reach	River Sta.	Contr.	Expan.
Secondary	15000	.1	.3
Secondary	14500	.1	.3
Secondary	14400	.1	.3
Secondary	14200	.1	.3
Secondary	14000	.1	.3
Secondary	13933	.1	.3
Secondary	13678	.1	.3
Secondary	13500	.1	.3
Secondary	13000	.1	.3

Secondary	12800	.1	.3
Secondary	12500	.1	.3
Secondary	12300	.1	.3
Secondary	12000	.1	.3
Secondary	11500	.1	.3
Secondary	11200	.1	.3
Secondary	11000	.1	.3
Secondary	10500	.1	.3
Secondary	10000	.1	.3

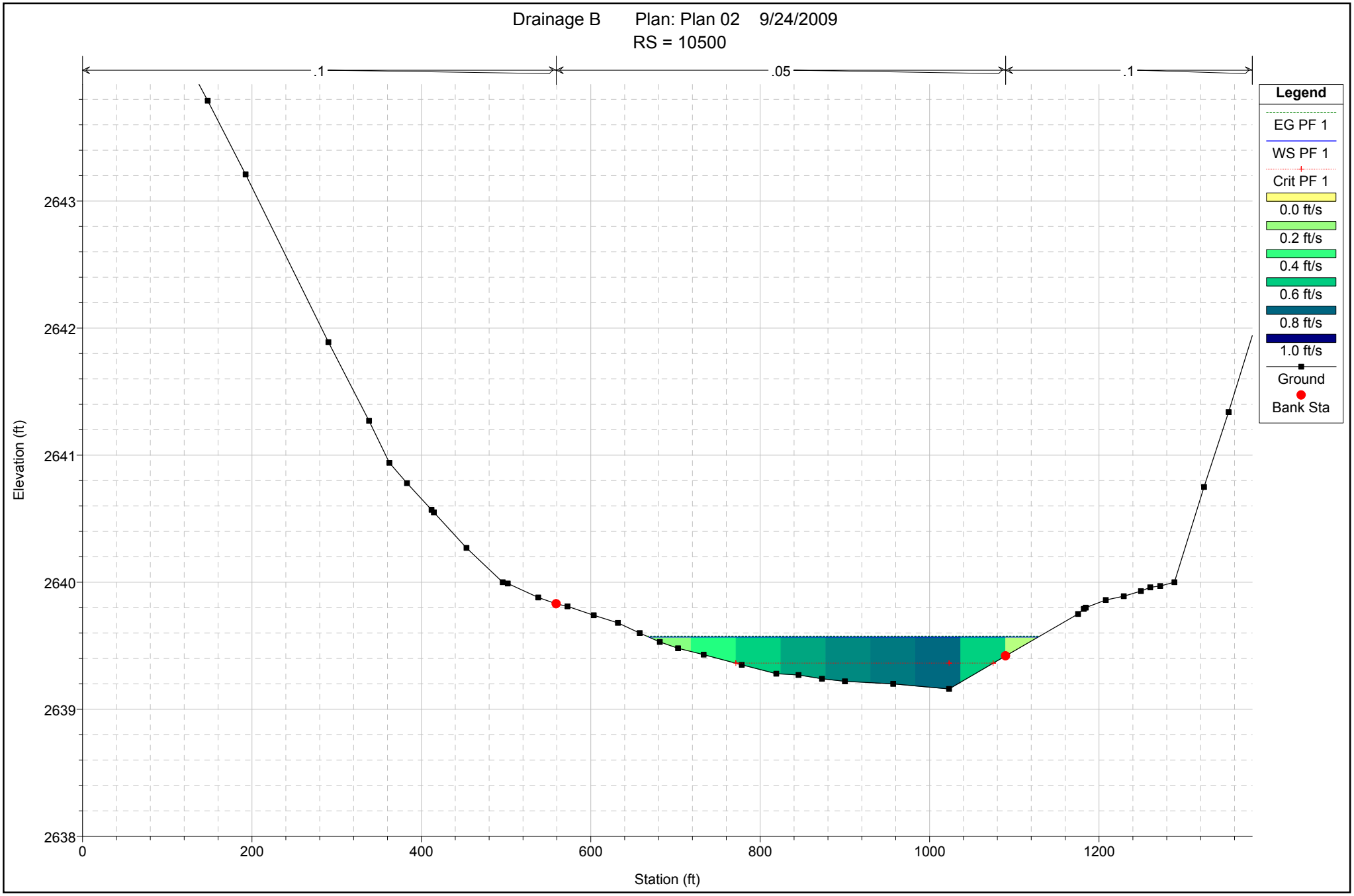
Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Secondary	15000	PF 1	76.40	2680.00	2681.39		2681.41	0.001267	0.87	87.80	117.64	0.18
Secondary	14500	PF 1	76.40	2679.87	2680.16		2680.17	0.006909	0.86	97.60	506.19	0.33
Secondary	14400	PF 1	76.40	2678.08	2678.51	2678.51	2678.63	0.060679	2.83	26.99	112.29	1.02
Secondary	14200	PF 1	76.40	2674.97	2675.81		2675.82	0.001549	0.77	98.81	183.82	0.19
Secondary	14000	PF 1	76.40	2674.74	2675.25		2675.27	0.005965	1.06	78.02	310.35	0.33
Secondary	13933	PF 1	76.40	2673.82	2674.20	2674.20	2674.33	0.058499	2.84	27.40	116.23	1.00
Secondary	13678	PF 1	76.40	2669.89	2670.67		2670.68	0.002434	0.85	89.96	204.03	0.23
Secondary	13500	PF 1	76.40	2669.50	2670.14	2669.91	2670.15	0.003866	0.86	114.19	439.25	0.27
Secondary	13000	PF 1	76.40	2664.71	2665.09	2665.09	2665.16	0.070358	2.12	36.37	282.54	1.00
Secondary	12800	PF 1	76.40	2659.99	2661.38		2661.39	0.001384	0.85	89.74	132.78	0.18
Secondary	12500	PF 1	76.40	2659.85	2660.25	2660.19	2660.28	0.029146	1.43	53.55	359.03	0.65
Secondary	12300	PF 1	76.40	2656.51	2657.24		2657.28	0.009093	1.64	46.69	106.39	0.44
Secondary	12000	PF 1	76.40	2654.87	2655.51	2655.23	2655.53	0.004032	1.04	73.69	180.98	0.29
Secondary	11500	PF 1	76.40	2649.99	2650.25	2650.25	2650.34	0.066301	2.33	32.72	194.13	1.00
Secondary	11200	PF 1	76.40	2646.78	2647.37	2647.08	2647.38	0.003745	0.90	84.74	242.80	0.27
Secondary	11000	PF 1	76.40	2645.07	2645.31	2645.31	2645.37	0.075066	1.96	38.89	328.09	1.01
Secondary	10500	PF 1	76.40	2639.16	2639.57	2639.36	2639.58	0.002930	0.67	116.16	459.34	0.23
Secondary	10000	PF 1	76.40	2635.26	2635.44	2635.44	2635.50	0.072769	2.01	37.99	302.39	1.00

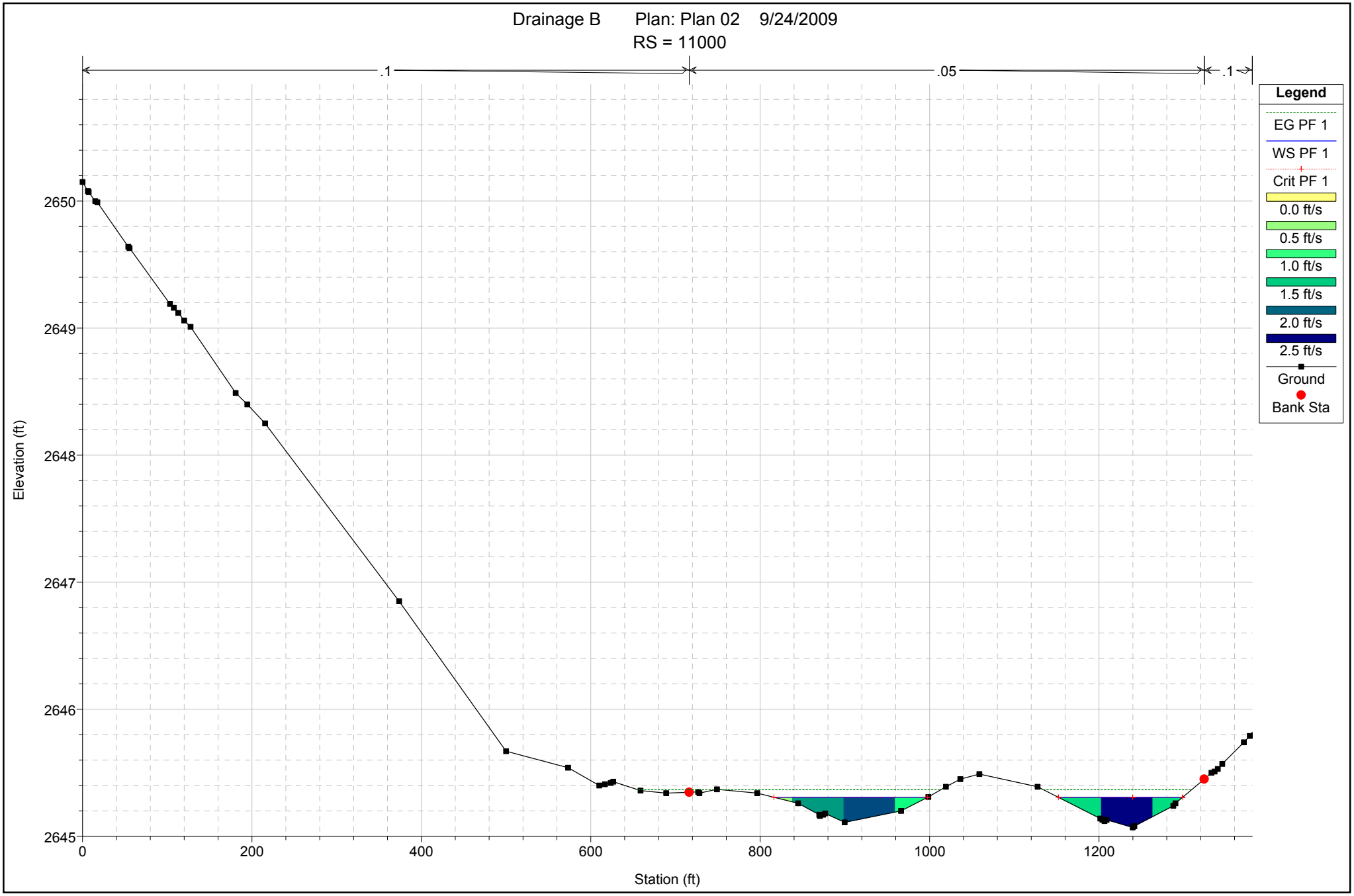

Drainage B Plan: Plan 02 9/24/2009
Secondary Secondary
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
2690
2680
2670
2660
2650
2640
2630
0
1000
2000
3000
4000
5000
Main Channel Distance (ft)
10500
11000
11200
11500
12000
12300
12500
12800
13000
13500
13678
13933
14000
14200
14400
14500
15000



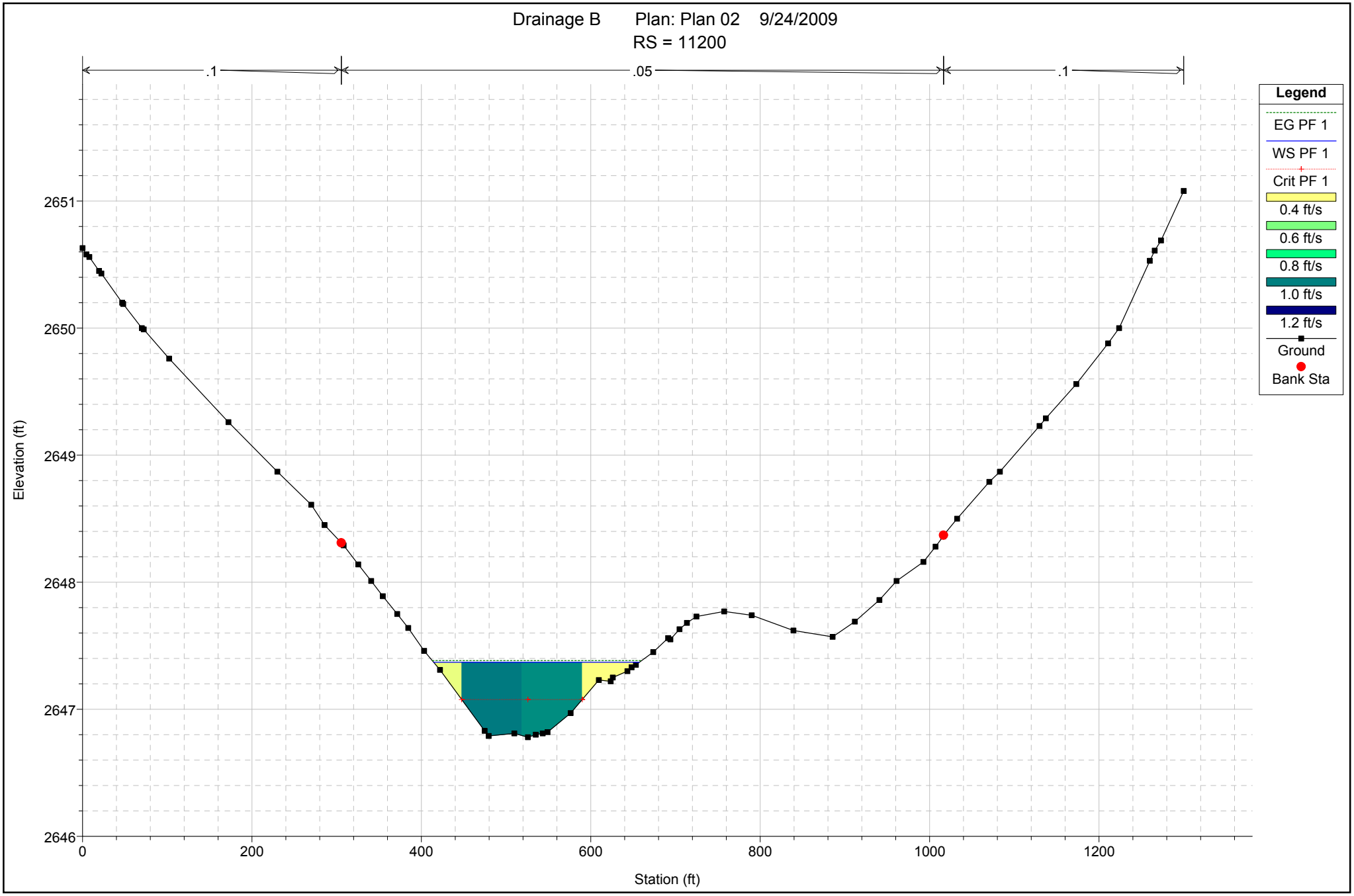
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



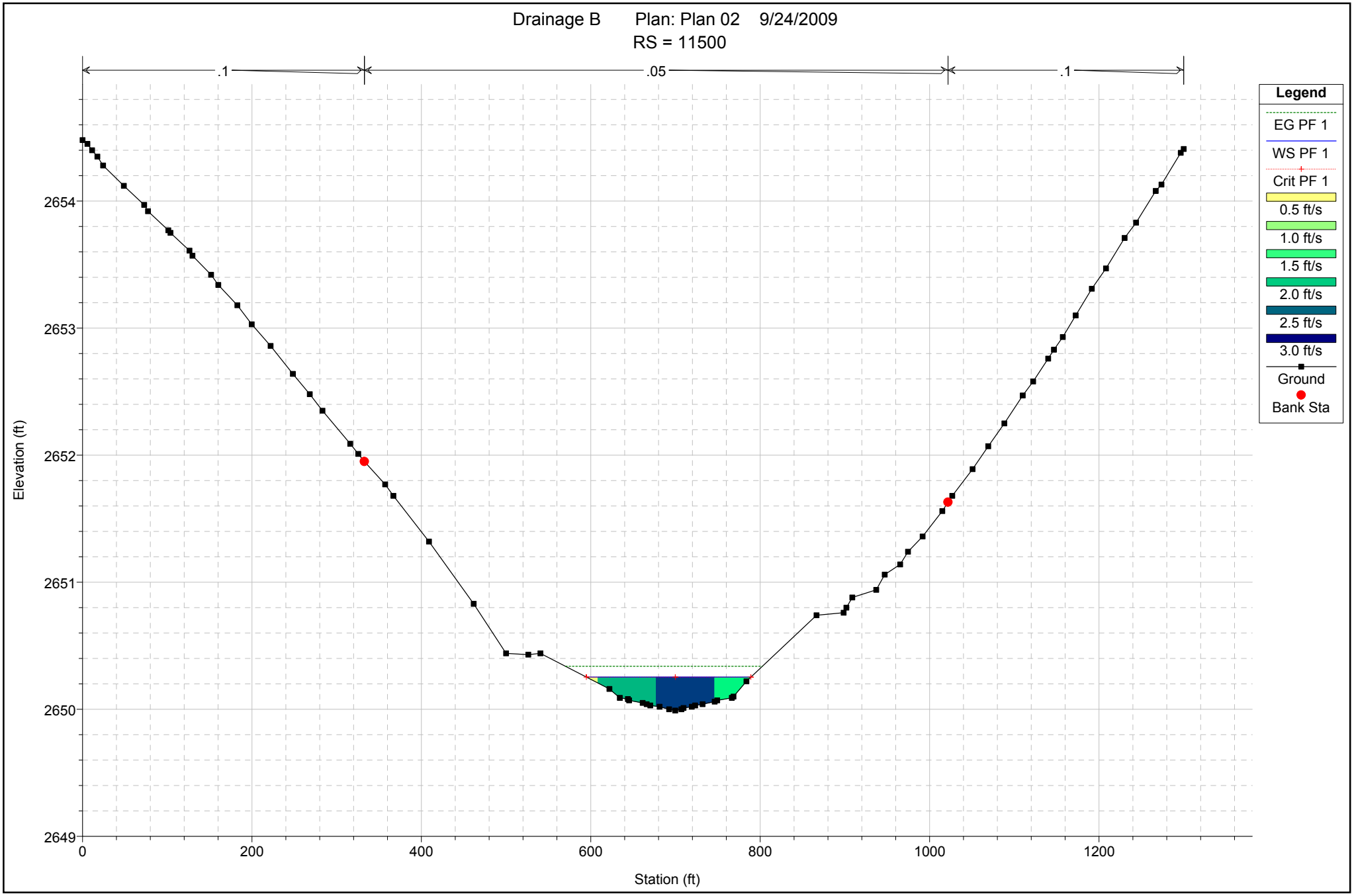
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



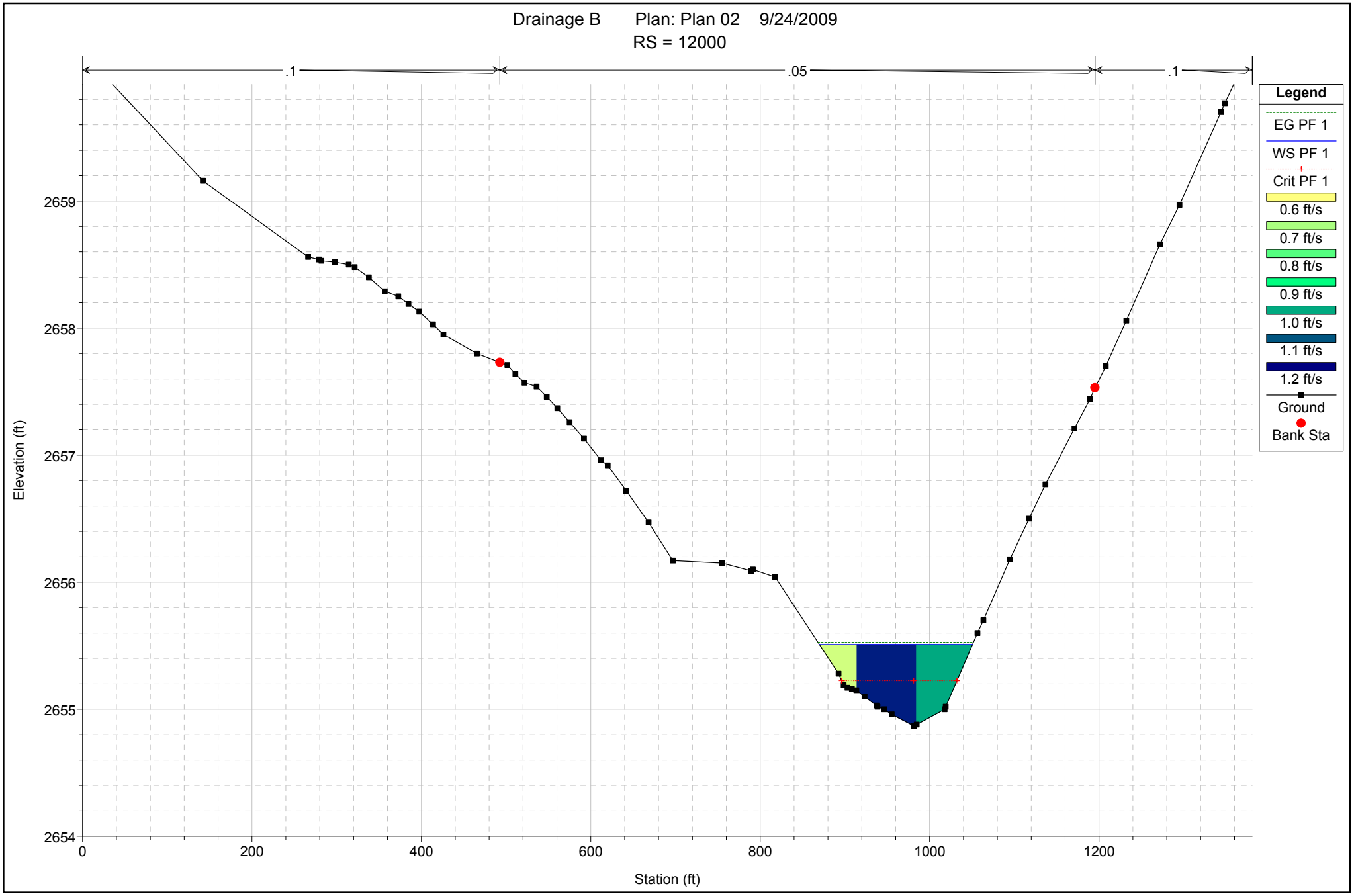
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



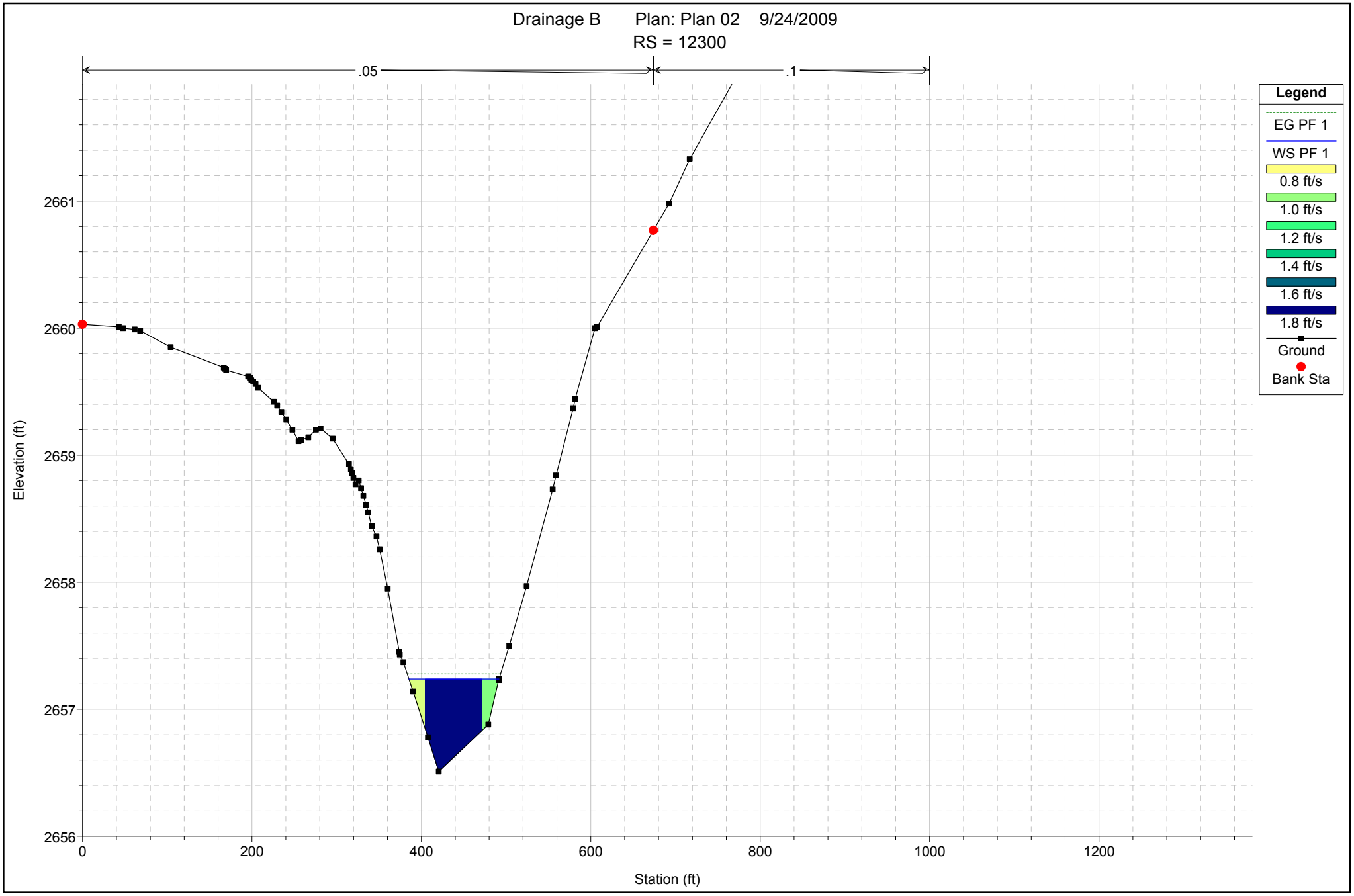
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



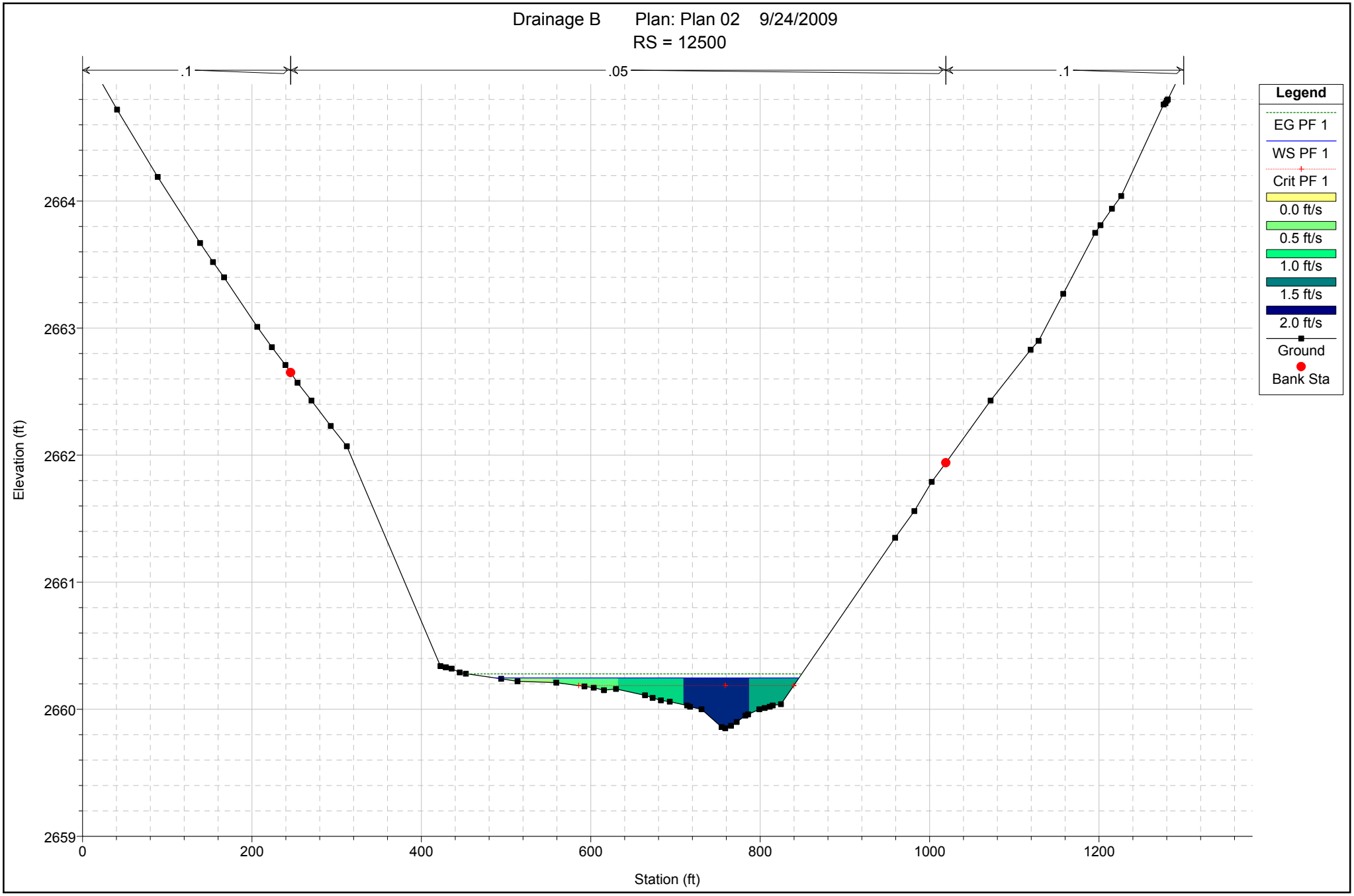
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



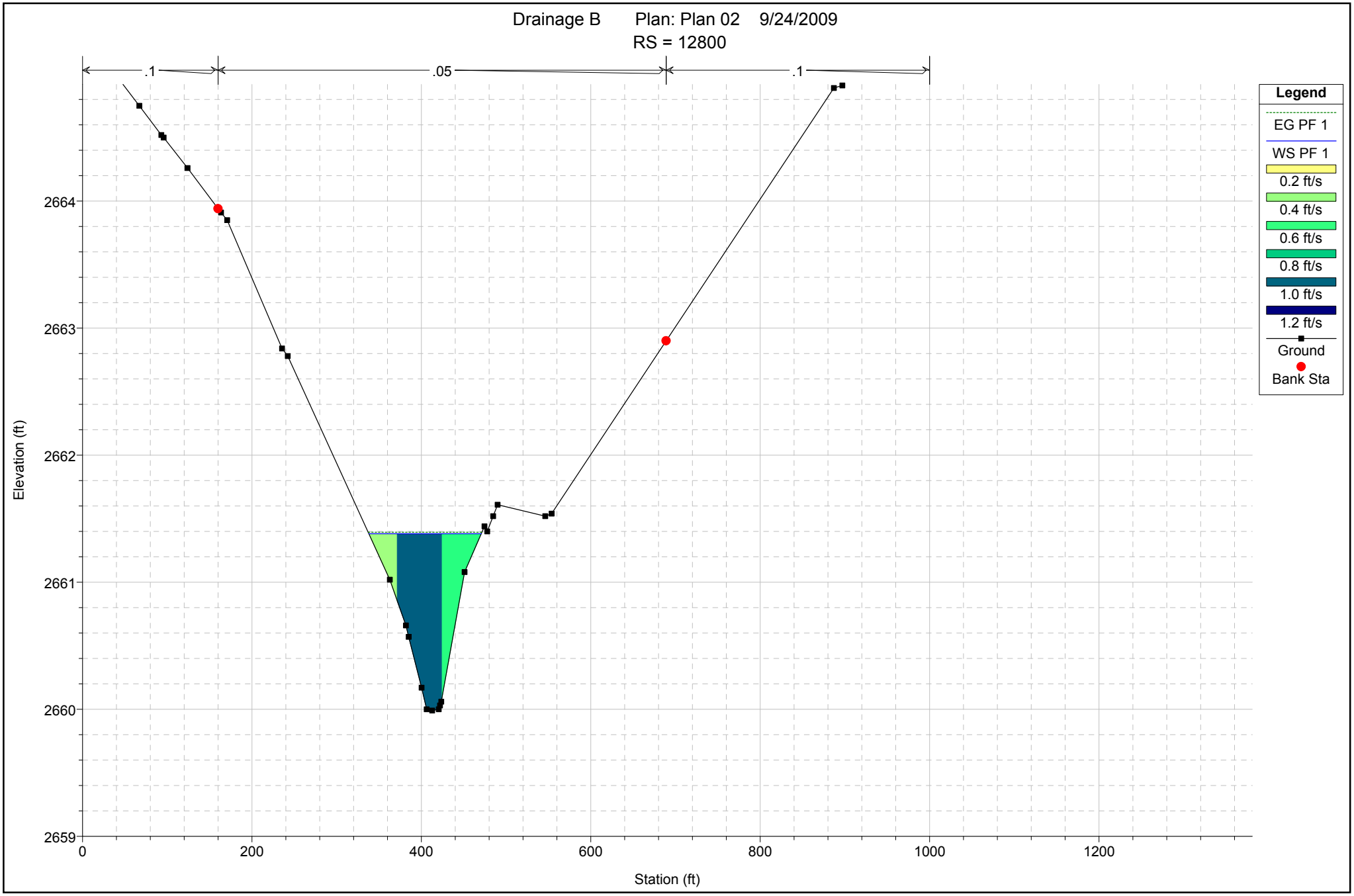
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



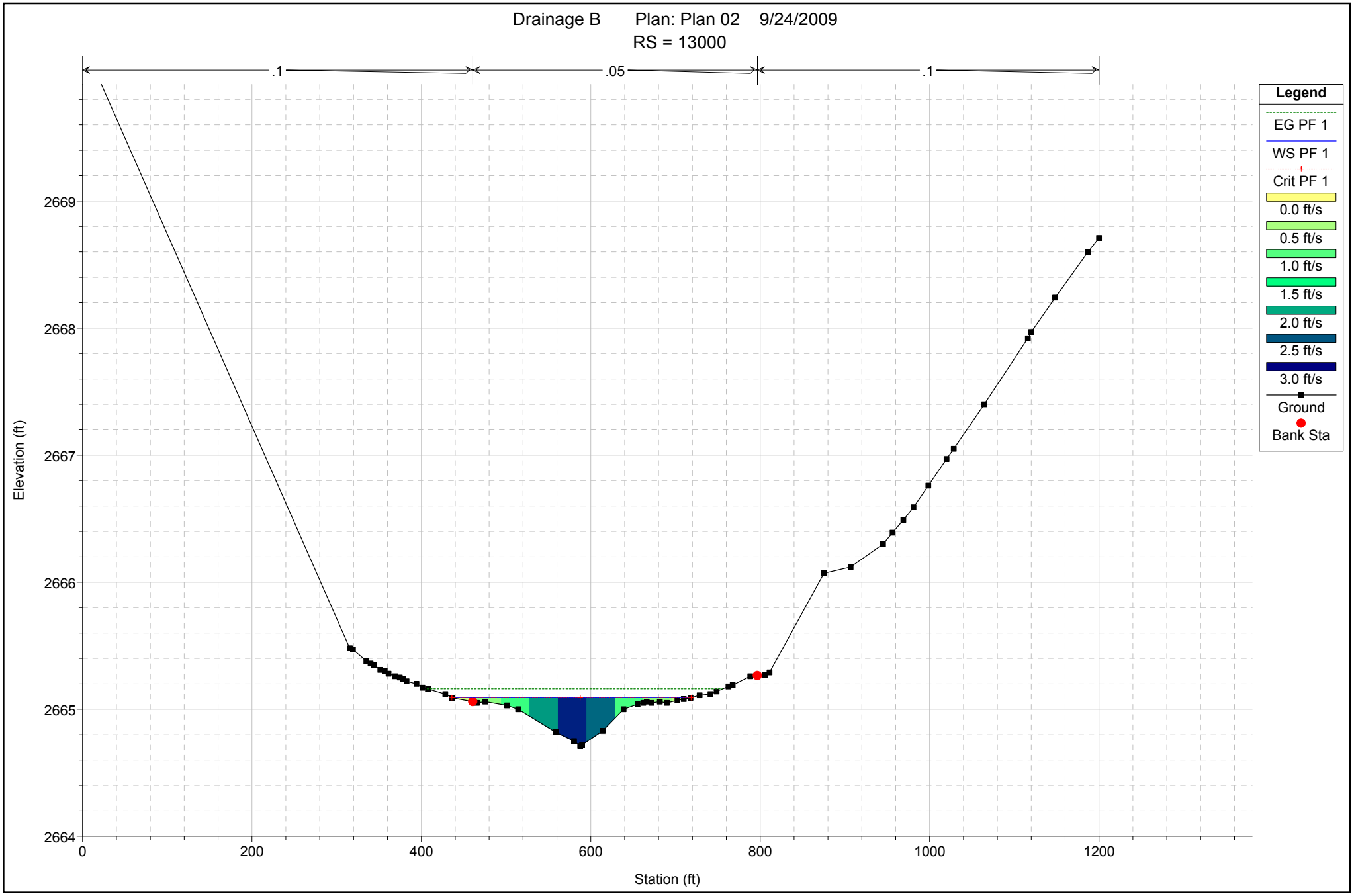
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



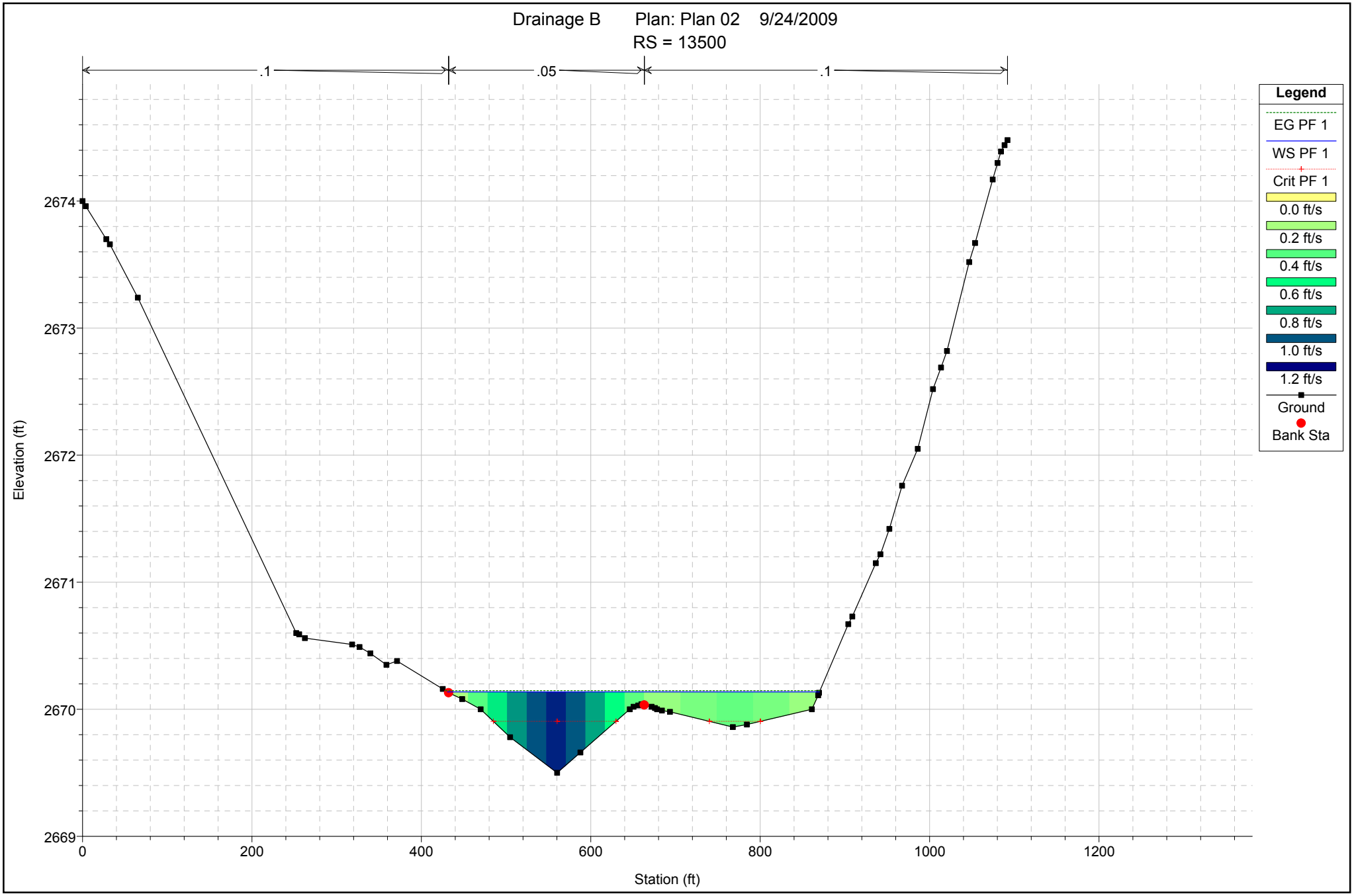
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



1 in Horiz. = 150 ft 1 in Vert. = 1 ft

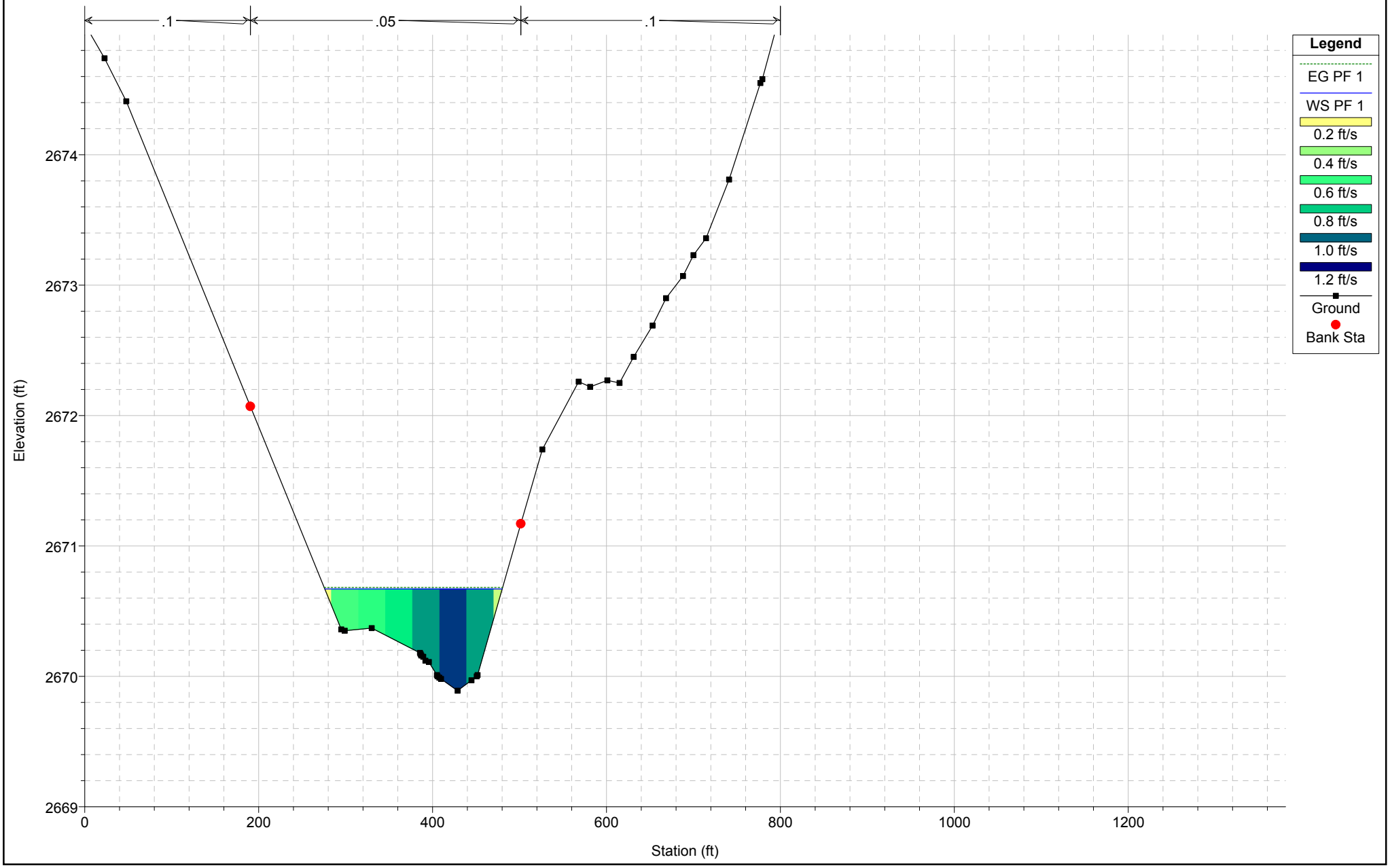


1 in Horiz. = 150 ft 1 in Vert. = 1 ft



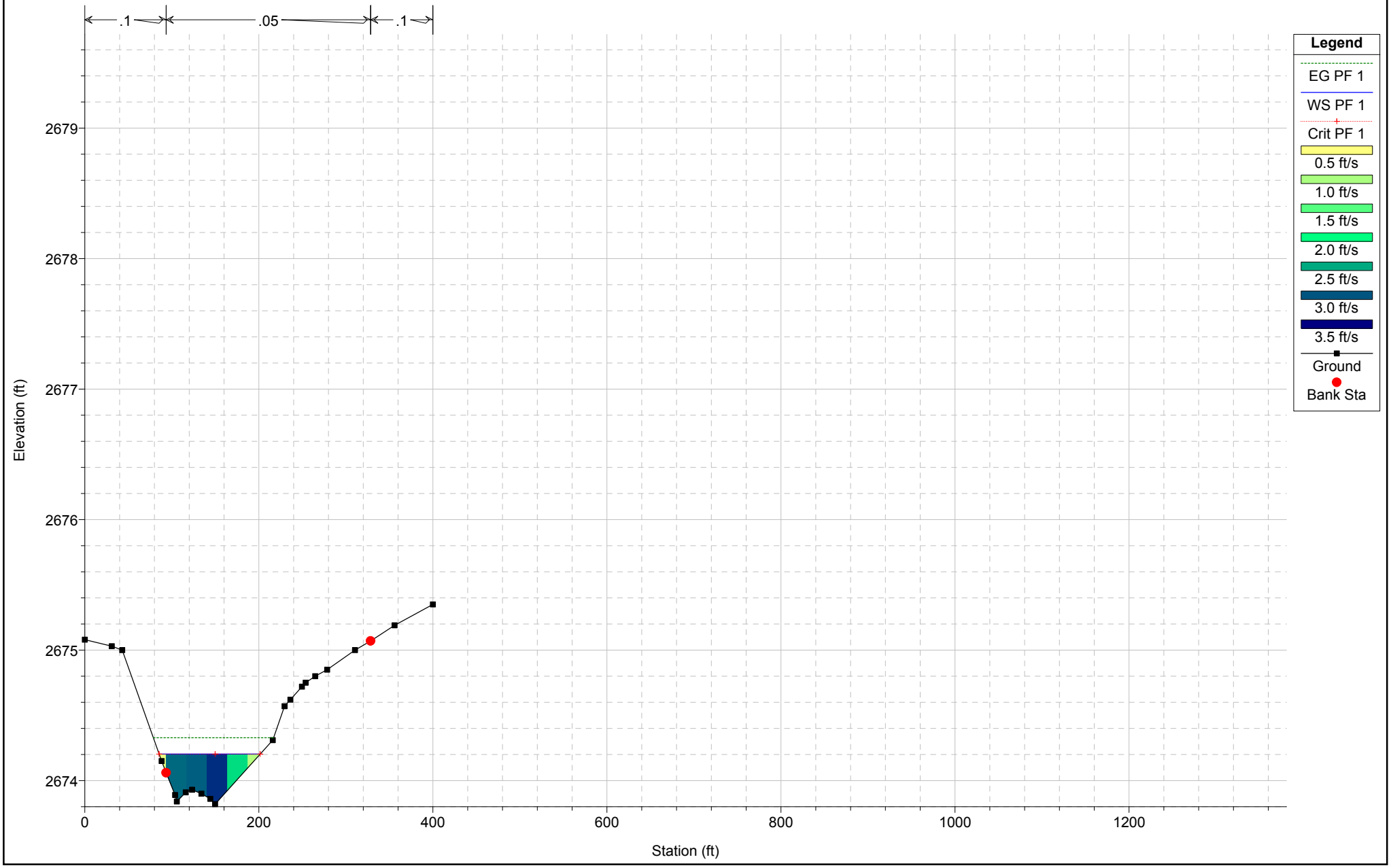
1 in Horiz. = 150 ft 1 in Vert. = 1 ft

Drainage B Plan: Plan 02 9/24/2009
RS = 13678

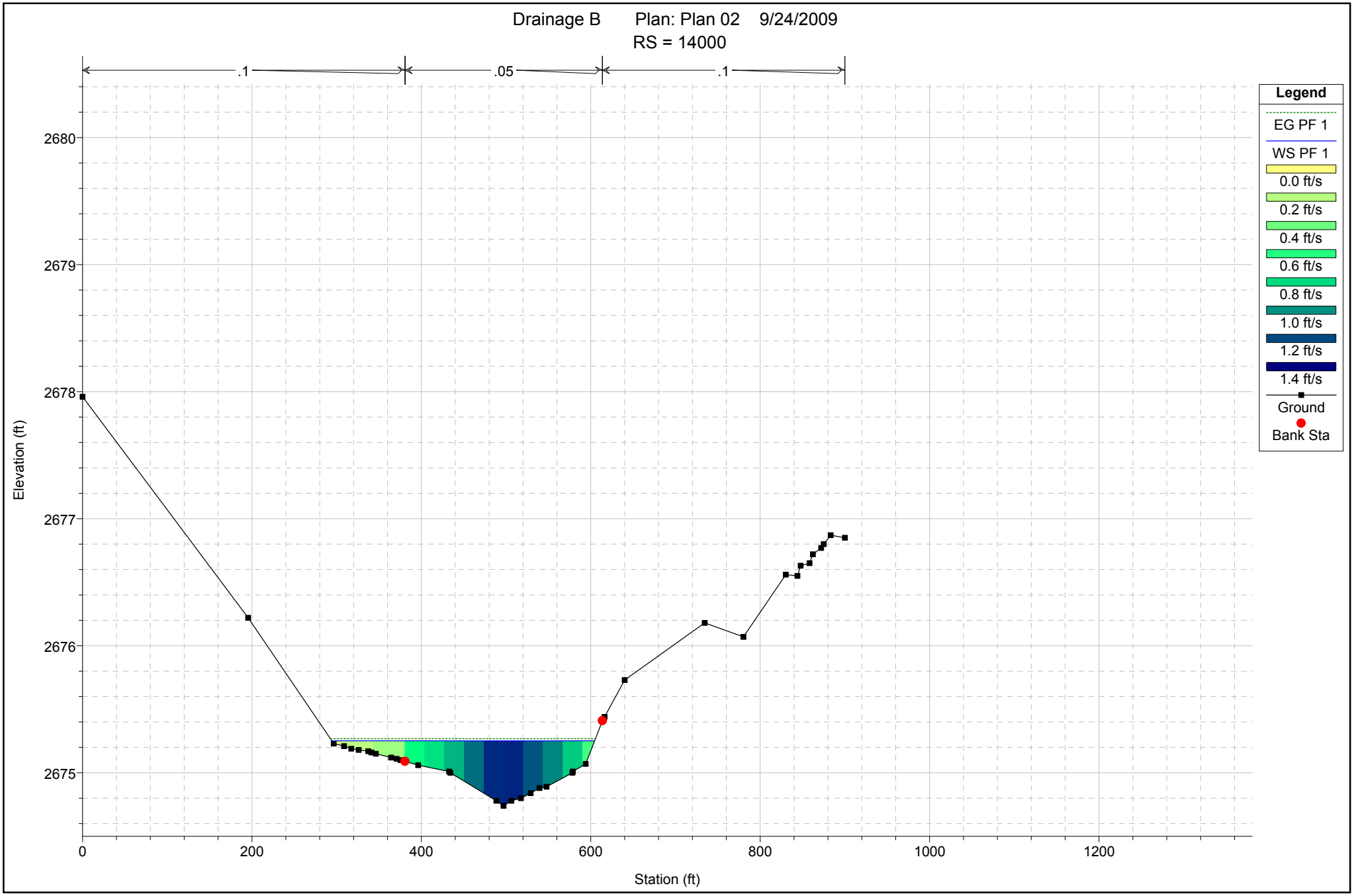


1 in Horiz. = 150 ft 1 in Vert. = 1 ft

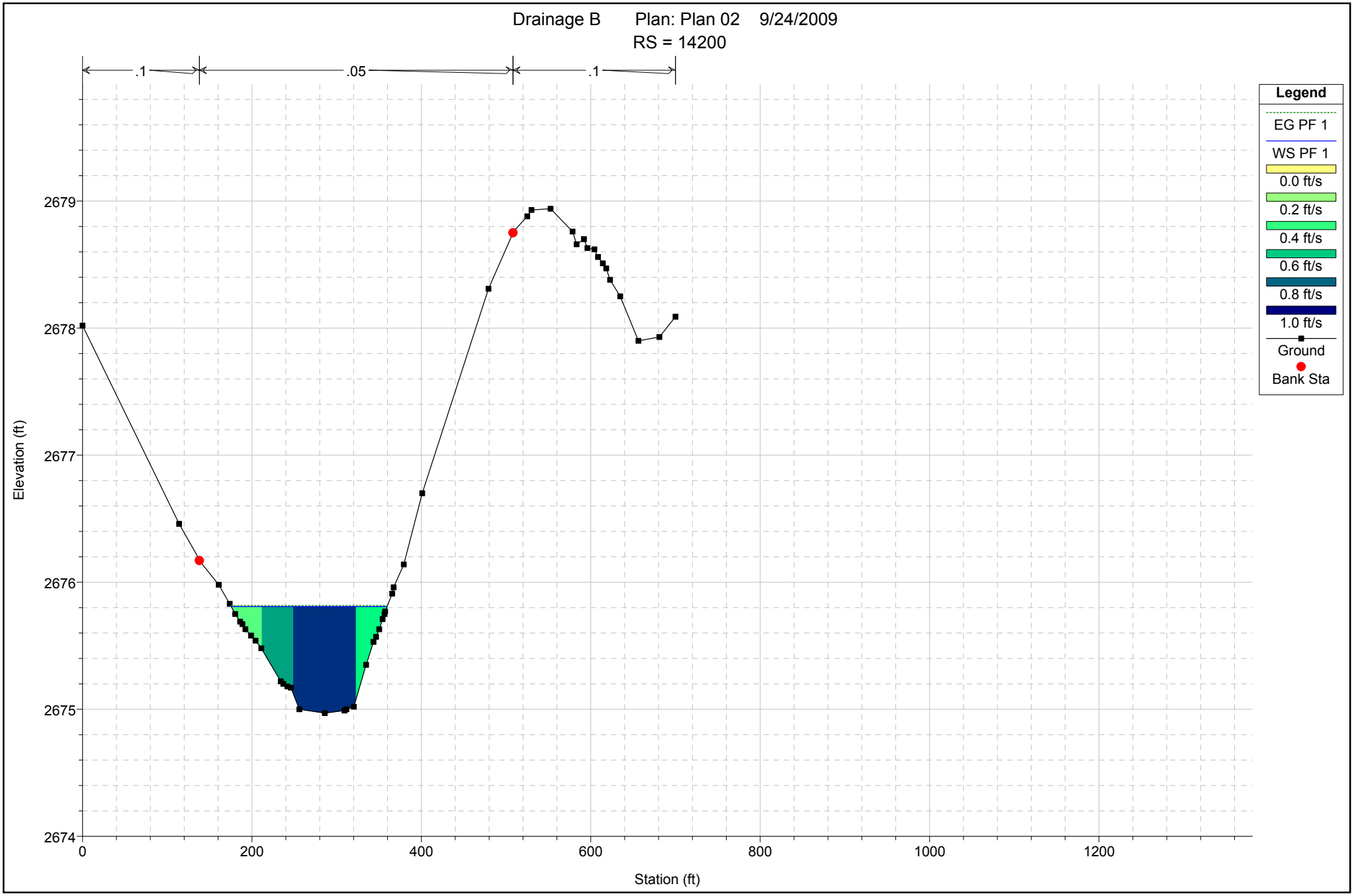
Drainage B Plan: Plan 02 9/24/2009
RS = 13933



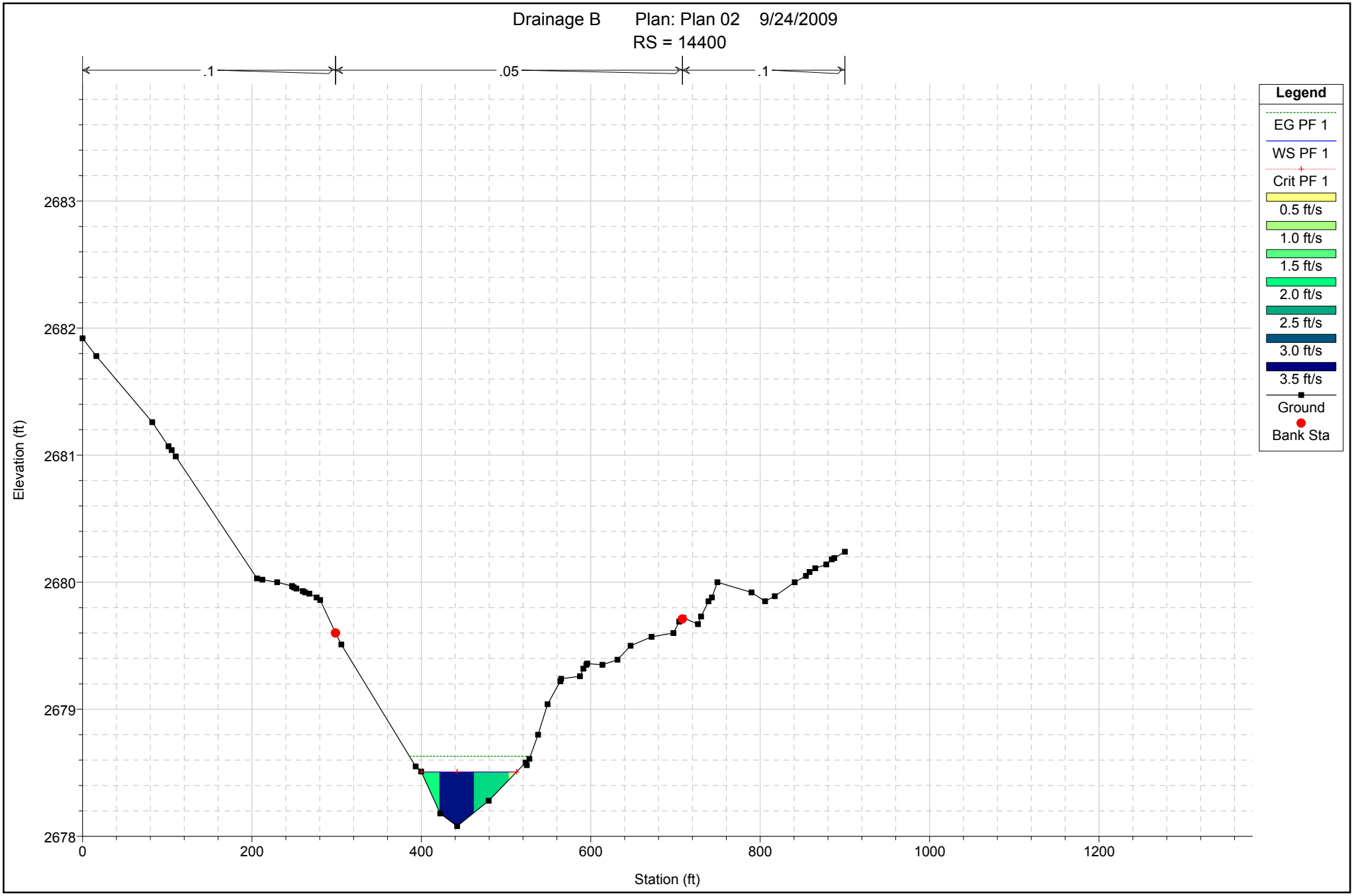
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



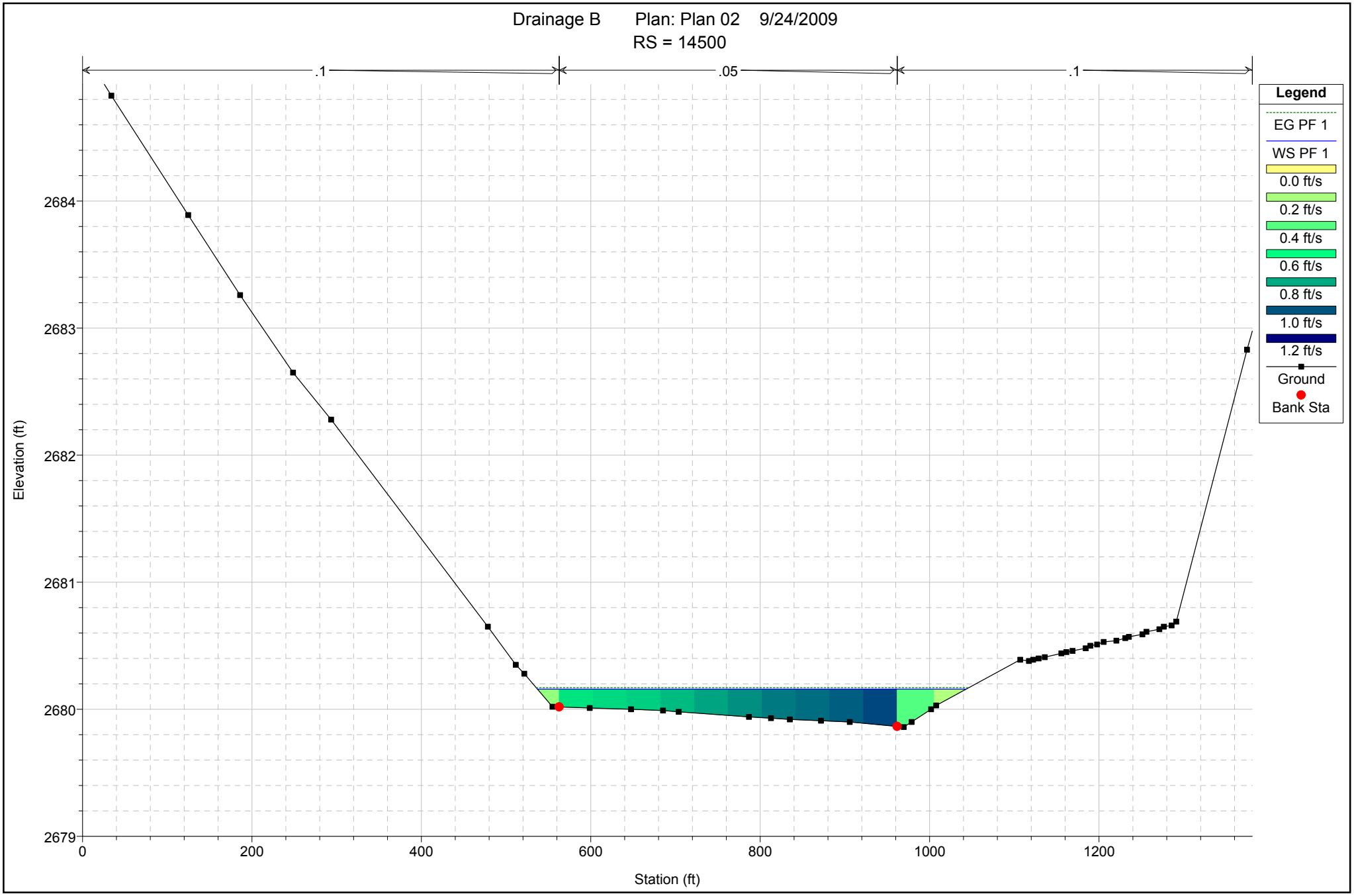
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



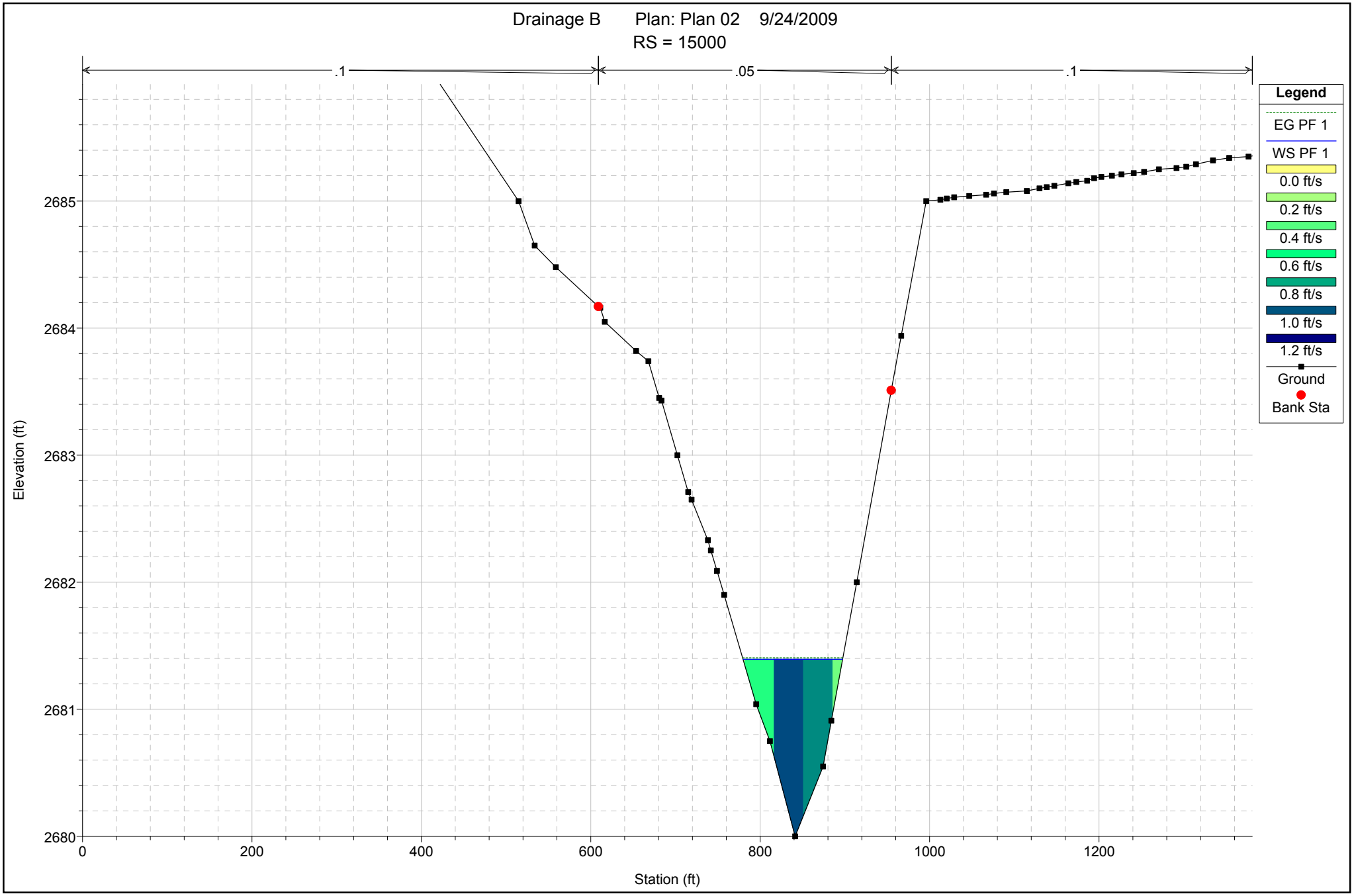
1 in Horiz. = 150 ft 1 in Vert. = 1 ft



1 in Horiz. = 150 ft 1 in Vert. = 1 ft



1 in Horiz. = 150 ft 1 in Vert. = 1 ft



1 in Horiz. = 150 ft 1 in Vert. = 1 ft

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                    HEC-RAS Version 4.0.0 March 2008
                      U.S. Army Corps of Engineers
                     Hydrologic Engineering Center
                           609 Second Street
                           Davis, California


          X     X  XXXXXX    XXXX        XXXX       XX      XXXX
          X     X  X        X    X       X   X     X  X    X
          X     X  X        X            X   X    X    X   X
          XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
          X     X  X        X            X  X     X    X        X
          X     X  X        X    X       X   X    X    X        X
          X     X  XXXXXX    XXXX        X    X   X    X   XXXXX



PROJECT DATA
Project Title: Drainage C
Project File : BroadCreek-Exist.prj
Run Date and Time: 9/24/2009 10:45:17 AM

Project in English units

Project Description:
Drainage Channel "C"



PLAN DATA

Plan Title: Plan 03
Plan File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Broad Creek\BroadCreek-Exist.p03

           Geometry Title: Drainage C
           Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Broad Creek\BroadCreek-Exist.g01

           Flow Title    : Drainage C
           Flow File     : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Broad Creek\BroadCreek-Exist.f02

Plan Summary Information:
Number of:  Cross Sections =   18    Multiple Openings  =    0
            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.01
    Critical depth calculation tolerance =  0.01
    Maximum number of iterations         =  20
    Maximum difference tolerance         =  0.3
    Flow tolerance factor                =  0.001

Computation Options
    Critical depth computed only where necessary
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Average Conveyance
    Computational Flow Regime:     Subcritical Flow
```

FLOW DATA

Flow Title: Drainage C
Flow File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Broad Creek\BroadCreek-Exist.f02

Flow Data (cfs)

River	Reach	RS	PF 1
BroadCreek	BroadCreek	18500	2016.54

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
BroadCreek	BroadCreek	PF 1		Critical

GEOMETRY DATA

Geometry Title: Drainage C
Geometry File : v:\1NEX010100\Engr\DESIGN\HYDR\HEC-RAS\Steltman\Broad Creek\BroadCreek-Exist.g01

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 18500

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2762.2	5.97	2762.19	10.21	2762.18	21.73	2762.16	26.55	2762.15
66.49	2762.13	92.99	2761.82	119.51	2762.13	125.26	2762.12	187.28	2761.51
285.98	2760.02	292.23	2760	316.37	2758.82	336.4	2757.88	362.34	2756.64
367.74	2756.4	398.4	2755.01	398.69	2755	405.41	2754.85	419.92	2754.56
432.81	2754.31	447.33	2754.05	449.34	2754.03	451.4	2754.02	464.54	2753.79
471.09	2753.75	478.1	2753.7	492.24	2753.47	497.95	2753.43	510.23	2753.23
521.26	2753.04	537.98	2752.78	551.34	2752.58	552.8	2752.56	553.88	2752.55
570.23	2752.34	584.17	2752.18	622.04	2751.96	648.74	2751.82	653.97	2751.81
676.25	2751.87	700.56	2751.98	703.62	2752	706.76	2752.03	718.13	2752.08
721.83	2752.09	725.3	2752.1	727.07	2752.12	728.52	2752.13	738.61	2752.21
813.59	2752.63	940.96	2753.75	947.34	2753.8	954.49	2753.89	961.98	2753.98
981.01	2754.21	988.63	2754.3	996.59	2754.39	999.48	2754.42	1021.2	2754.67
1048.45	2755	1050	2755.12	1050.54	2755.16	1052.15	2755.28	1079.96	2757.33
1085.51	2757.75	1105.54	2759.22	1108.69	2759.45	1111.36	2759.63	1112.81	2759.73
1116.93	2760	1118.05	2760.02	1172.14	2760.12	1197.88	2760.16		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	398.4	.05	1050	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
398.4	1050	490.79	500	571.98	.1	.3

```
CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2754.16    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.14    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2754.01    Reach Len. (ft)          490.79     500.00     571.98
  Crit W.S. (ft)           2753.36    Flow Area (sq ft)                   663.87
  E.G. Slope (ft/ft)      0.007405    Area (sq ft)                        663.87
  Q Total (cfs)            2016.54    Flow (cfs)                         2016.54
  Top Width (ft)            512.83    Top Width (ft)                      512.83
  Vel Total (ft/s)            3.04    Avg. Vel. (ft/s)                      3.04
  Max Chl Dpth (ft)           2.20    Hydr. Depth (ft)                      1.29
  Conv. Total (cfs)        23433.4    Conv. (cfs)                        23433.4
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    512.86
  Min Ch El (ft)           2751.81    Shear (lb/sq ft)                      0.60
  Alpha                       1.00    Stream Power (lb/ft s)                1.82
  Frctn Loss (ft)             5.38    Cum Volume (acre-ft)        0.02     109.24       0.04
  C & E Loss (ft)             0.01    Cum SA (acres)              0.25      76.92       0.23


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 18000

INPUT
Description:
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2755.51  110.16 2756.55  197.07 2756.72  205.59 2756.71  289.96 2756.09
  359.41 2755.15  369.01 2755.11  371.45  2755.1  392.18 2755.05   393.2 2755.04
  395.06 2755.01  396.35    2755  397.98 2754.92  399.16 2754.86  431.96 2753.12
  493.38    2750     494 2749.98  507.77 2749.63  509.48 2749.62  511.26 2749.61
  526.18 2749.29  539.67    2749   543.1 2748.98  555.28 2748.74  566.29  2748.5
  575.64 2748.29   575.9  2748.3  675.15 2747.27  735.42    2747  741.28 2747.03
   748.3 2747.06  754.22  2747.1  758.03 2747.11  796.94 2747.22  833.87 2747.26
   851.5 2747.25  860.61 2747.28  924.45 2747.39 1003.02 2747.81 1011.43 2747.89
 1017.06 2747.95 1017.82 2747.96 1050.54 2748.15 1081.97 2748.04 1087.26  2748.1
 1095.68 2748.19 1098.43 2748.27 1101.19 2748.19 1144.76 2748.91  1193.4 2749.95
 1199.05 2749.98 1199.39 2749.99  1199.92749.992 1201.91    2750 1235.27  2751.9
 1290.31 2754.82  1293.6    2755    1300 2755.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1     494     .05  1199.9      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           494  1199.9             517.1     500  437.58             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2748.77    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.22    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2748.55    Reach Len. (ft)          517.10     500.00     437.58
  Crit W.S. (ft)           2748.30    Flow Area (sq ft)                   534.61
  E.G. Slope (ft/ft)      0.017074    Area (sq ft)                        534.61
```

Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	558.42	Top Width (ft)		558.42	
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		3.77	
Max Chl Dpth (ft)	1.54	Hydr. Depth (ft)		0.96	
Conv. Total (cfs)	15432.5	Conv. (cfs)		15432.5	
Length Wtd. (ft)	499.99	Wetted Per. (ft)		558.44	
Min Ch El (ft)	2747.00	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		3.85	
Frctn Loss (ft)	4.49	Cum Volume (acre-ft)	0.02	102.36	0.04
C & E Loss (ft)	0.03	Cum SA (acres)	0.25	70.78	0.23

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 17500

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2748.21	22.26	2748.22	31.43	2748.24	40.6	2748.25	49.47	2748.24
50.65	2748.25	57.63	2748.26	61.44	2748.32	65.23	2748.26	71	2748.25
127.33	2748.38	188.2	2748.73	200.43	2748.85	203.78	2748.86	206.16	2748.87
208.22	2748.88	211.73	2748.9	215.14	2748.91	225.93	2748.98	230.62	2749
235.28	2749.01	276.19	2749.21	322.3	2749.52	323.83	2749.53	324.45	2749.54
325.98	2749.55	340.35	2749.63	349.19	2749.59	367.66	2749.23	369.14	2749.13
369.46	2749.14	371.54	2749.02	372.69	2749.03	374.51	2748.95	378.5	2748.77
384.67	2748.51	398.56	2748.23	406.82	2747.84	408.97	2747.78	410.54	2747.73
424.11	2747.1	434.13	2746.74	453.26	2745.83	470.83	2745	476.36	2744.88
489.68	2744.62	501.83	2744.38	512.74	2744.17	514.31	2744.18	524.01	2743.99
526.42	2744.01	531.14	2744.04	535.2	2744.03	535.77	2744.02	565.26	2743.86
609.83	2743.53	610.3	2743.52	631.35	2743.29	631.83	2743.28	648.9	2743.09
769.16	2742	835.64	2741.71	846.87	2741.67	851.5	2741.64	872.82	2741.69
889.31	2741.77	892.06	2741.78	894.43	2741.8	925.85	2742.17	980.07	2743.19
982.31	2743.22	984.59	2743.15	991.48	2743.37	995.25	2743.33	999.04	2743.29
1006.02	2743.53	1009.84	2743.51	1018.27	2743.79	1018.82	2743.804	1031.02	2744.13
1033.77	2744.15	1046.41	2744.49	1047.91	2744.5	1063.16	2744.94	1065.25	2745
1082.52	2746	1087.66	2746.32	1101.71	2747.11	1112.85	2747.75	1121.69	2748.24
1122.22	2748.26	1123.59	2748.33	1129.14	2748.63	1144.26	2749.32	1146.61	2749.44
1148.27	2749.52	1163.38	2750	1171.27	2750.02	1182.67	2750.04	1184.04	2750.05
1195.89	2750.06	1196.89	2750.07						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	535.2	.05	1018.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
535.2	1018.8	514.7	500	419.42	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2744.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.13	Wt. n-Val.	0.100	0.050	0.100
W.S. Elev (ft)	2744.11	Reach Len. (ft)	514.70	500.00	419.42

```
  Crit W.S. (ft)                      Flow Area (sq ft)          1.40     707.77       1.79
  E.G. Slope (ft/ft)      0.005527    Area (sq ft)               1.40     707.77       1.79
  Q Total (cfs)            2016.54    Flow (cfs)                 0.29    2015.68       0.57
  Top Width (ft)            512.68    Top Width (ft)            17.49     483.60      11.60
  Vel Total (ft/s)            2.84    Avg. Vel. (ft/s)           0.20       2.85       0.32
  Max Chl Dpth (ft)           2.47    Hydr. Depth (ft)           0.08       1.46       0.15
  Conv. Total (cfs)        27124.0    Conv. (cfs)                 3.8    27112.5        7.7
  Length Wtd. (ft)          499.99    Wetted Per. (ft)          17.49     483.64      11.60
  Min Ch El (ft)           2741.64    Shear (lb/sq ft)           0.03       0.50       0.05
  Alpha                       1.01    Stream Power (lb/ft s)     0.01       1.44       0.02
  Frctn Loss (ft)             4.77    Cum Volume (acre-ft)       0.01      95.23       0.03
  C & E Loss (ft)             0.02    Cum SA (acres)             0.15      64.80       0.17


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 17000

INPUT
Description:
Station Elevation Data    num=      50
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2742.22    13.4 2742.29  154.72 2743.46   155.3 2743.47  163.22 2743.56
  168.75 2743.58  182.01 2743.75  194.79 2743.91  208.72 2744.09  226.39 2744.31
  247.45 2744.57  271.84 2744.86  274.87  2744.9  278.29 2744.94  284.59    2745
  321.22 2745.03  327.53 2745.04   356.8 2745.02  365.16 2745.01  377.52    2745
  399.36 2744.12  413.64 2743.44  415.71 2743.35  486.15    2740  499.21 2739.96
  669.82 2738.14  764.81  2737.5  782.73 2737.51  789.51 2737.49  793.72 2737.48
  800.89 2737.49  806.68 2737.48  813.98 2737.49  821.09 2737.47  831.05 2737.46
     904  2737.9 1031.06 2739.29 1042.11 2739.51 1048.82 2739.63 1066.28  2739.9
 1071.28 2739.99  1071.62739.991 1073.47    2740 1094.97 2740.68 1100.51 2740.89
 1108.13  2741.2 1120.99 2741.74 1162.55 2743.55 1195.66    2745    1200 2745.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1  499.21     .05  1071.6      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        499.21  1071.6           543.56     500  318.36             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2739.45    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.29    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2739.15    Reach Len. (ft)          543.56     500.00     318.36
  Crit W.S. (ft)           2738.93    Flow Area (sq ft)                   462.74
  E.G. Slope (ft/ft)      0.020294    Area (sq ft)                        462.74
  Q Total (cfs)            2016.54    Flow (cfs)                         2016.54
  Top Width (ft)            443.06    Top Width (ft)                      443.06
  Vel Total (ft/s)            4.36    Avg. Vel. (ft/s)                      4.36
  Max Chl Dpth (ft)           1.69    Hydr. Depth (ft)                      1.04
  Conv. Total (cfs)        14155.6    Conv. (cfs)                        14155.6
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    443.08
  Min Ch El (ft)           2737.46    Shear (lb/sq ft)                      1.32
```

Alpha	1.00	Stream Power (lb/ft s)		5.77	
Frctn Loss (ft)	5.44	Cum Volume (acre-ft)	0.01	88.52	0.03
C & E Loss (ft)	0.04	Cum SA (acres)	0.05	59.48	0.12

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 16500

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2739.03	62.66	2739.82	62.9	2739.83	72.08	2739.85	83.35	2739.84
84.41	2739.83	85.59	2739.84	90.34	2739.83	91.83	2739.84	96.54	2739.83
105.16	2739.81	113.97	2739.8	120.81	2739.79	129.15	2739.78	140.85	2739.76
146.92	2739.75	151.67	2739.74	156.14	2739.73	183.58	2739.72	185.96	2739.73
198.75	2739.72	213.34	2739.73	223.81	2739.72	229.11	2739.71	236.79	2739.72
242.3	2739.73	246.59	2739.72	256.18	2739.73	269.98	2739.74	290.15	2739.75
319.34	2739.78	341.61	2739.81	365.18	2739.84	367.49	2739.85	386.46	2739.88
404.63	2739.91	405.77	2739.92	410.56	2739.89	424.7	2739.93	435.93	2739.96
445.4	2739.98	451.91	2739.41	453.51	2739.31	454.2	2739.21	455.79	2739
458.15	2738.75	460.94	2738.43	488.59	2735	490.21	2734.94	491.03	2734.93
494.55	2734.9	495.43	2734.89	498.35	2734.81	501.6	2734.74	529.81	2733.23
565.98	2731.49	570.13	2731.4	572.91	2731.09	575.88	2731.01	585.22	2730
590.11	2729.98	594.55	2729.96	601.85	2729.99	602.64	2730	606.75	2730.1
608.32	2730.14	609.65	2730.15	613.48	2730.18	615.97	2730.25	619.11	2730.34
624.84	2730.39	638.12	2731.53	655.47	2732.33	663.2	2732.23	670.57	2732.27
674.42	2732.21	682.26	2732.1	686.44	2732.16	691.09	2732.1	693.63	2732.06
700.19	2732.2	705.16	2732.12	706.13	2732.11	707.09	2732.1	712.75	2732.05
717.45	2731.97	728.05	2732.27	805.31	2732.62	960.28	2734.54	962.72	2734.58
964.99	2734.62	967.16	2734.66	981.96	2734.89	988.8	2735	989.98	2735.01
992.37	2735.02	996.75	2735.05	1001.42	2735.04	1004.01	2735.06	1005.29	2735.07
1006.82	2735.118	1074.16	2737.24	1088.04	2737.64	1113.99	2738.95	1121.59	2739.22
1135.27	2740	1154.1	2741.47	1172.94	2742.91	1199.65	2744.85	1200	2744.87

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	501.6	.05	1006.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
501.6	1006.8	520.62	500	418.62	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2733.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.17	Wt. n-Val.		0.050	
W.S. Elev (ft)	2733.79	Reach Len. (ft)	520.62	500.00	418.62
Crit W.S. (ft)	2732.99	Flow Area (sq ft)		605.45	
E.G. Slope (ft/ft)	0.006774	Area (sq ft)		605.45	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	380.81	Top Width (ft)		380.81	
Vel Total (ft/s)	3.33	Avg. Vel. (ft/s)		3.33	
Max Chl Dpth (ft)	3.83	Hydr. Depth (ft)		1.59	

Conv. Total (cfs)	24500.7	Conv. (cfs)		24500.7	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		381.03	
Min Ch El (ft)	2729.96	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		2.24	
Frctn Loss (ft)	5.36	Cum Volume (acre-ft)	0.01	82.39	0.03
C & E Loss (ft)	0.03	Cum SA (acres)	0.05	54.75	0.12

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 16000

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2736.23	109.62	2737.34	216.4	2738.08	221.78	2738.07	232.49	2738.04
243.89	2738.02	264	2737.86	288.96	2737.54	292.95	2737.46	294.86	2737.42
304.24	2737.53	310.26	2737.4	321.87	2737.16	336.08	2736.87	344.39	2736.91
350.63	2736.75	357.55	2736.57	366.05	2736.3	380	2735.87	401.28	2735.26
402.23	2735.25	410.21	2735	424.54	2733.89	427.38	2733.65	432.51	2733.21
445.68	2732.25	452.69	2731.58	457.26	2731.27	461.36	2730.87	462.98	2730.77
469.88	2730.28	470.66	2730.24	474.03	2730	474.5	2729.99	485.69	2729.66
486.13	2729.65	500.06	2729.25	507.02	2729.06	516.18	2728.77	537.64	2727.79
549.62	2727.32	564.78	2726.35	571.5	2726.05	573.08	2725.96	576.17	2725.76
579.59	2725.54	587.48	2725	597.12	2724.99	604.18	2725	633.75	2725.6
639.27	2725.7	664.43	2726.27	679.96	2726.61	692.89	2726.89	707.22	2727.14
725.81	2727.54	738.21	2727.8	755.45	2728.05	759.17	2728.13	767.66	2728.31
774.66	2728.46	776.23	2728.49	796.01	2728.72	825.78	2729.23	840.12	2729.39
863.29	2729.66	889.2	2729.98	889.62	2729.99	890.57	2730	907.57	2730.05
952.5	2730.45	1022.9	2730.9	1027.35	2730.96	1029.13	2730.97	1032.51	2731.03
1036.3	2731.11	1042.19	2731.15	1047.98	2731.18	1052.48	2731.28	1054.68	2731.3
1060.05	2731.41	1062.57	2731.44	1068.97	2731.57	1080.21	2731.72	1088.02	2731.88
1123.09	2732.25	1151.93	2732.43	1158.98	2732.42	1165.87	2732.62	1173.89	2732.86
1179.9	2732.85	1188.78	2733.14	1198.73	2733.48	1200	2733.52	1211.51	2733.95
1227.52	2734.58	1237.48	2735	1259.11	2736.88	1293.74	2740	1297.28	2740.18
1297.44	2740.19	1300	2740.32						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	474.5	.05	889.2	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
474.5	889.2	449.42	500	434.17	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2728.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.		0.050	
W.S. Elev (ft)	2728.08	Reach Len. (ft)	449.42	500.00	434.17
Crit W.S. (ft)		Flow Area (sq ft)		357.62	
E.G. Slope (ft/ft)	0.019452	Area (sq ft)		357.62	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	225.24	Top Width (ft)		225.24	

```
  Vel Total (ft/s)            5.64    Avg. Vel. (ft/s)                      5.64
  Max Chl Dpth (ft)           3.09    Hydr. Depth (ft)                      1.59
  Conv. Total (cfs)        14458.7    Conv. (cfs)                        14458.7
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    225.36
  Min Ch El (ft)           2724.99    Shear (lb/sq ft)                      1.93
  Alpha                       1.00    Stream Power (lb/ft s)               10.87
  Frctn Loss (ft)             4.63    Cum Volume (acre-ft)        0.01      76.86       0.03
  C & E Loss (ft)             0.10    Cum SA (acres)              0.05      51.27       0.12


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 15500

INPUT
Description:
Station Elevation Data    num=      70
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2730.88   84.81 2730.01   88.25    2730   95.95 2729.37  104.19 2728.69
  149.09    2725  160.98 2724.93  166.59 2724.89  208.36 2724.58  230.23 2724.49
   230.42724.489  233.46 2724.47   494.4 2721.41  577.24 2720.72  581.71 2720.54
   589.6 2720.22  595.21    2720  598.17 2719.97  599.99 2719.96  602.68 2719.98
  604.05 2719.99  604.92    2720  652.49 2723.18  661.69 2723.78  681.59    2725
  682.64 2725.01  683.67 2725.03  684.79 2725.04  685.35 2725.05  796.51 2727.28
  853.83 2728.43  878.68 2728.78  909.88 2729.23  913.61 2729.29  948.52 2729.78
  964.62    2730  976.07 2730.82  980.58 2731.13  996.26 2732.22 1002.06 2732.62
 1010.23 2733.18 1024.71 2734.11 1027.93 2734.33 1038.69    2735  1042.5 2735.01
 1061.29 2735.07  1062.4 2735.08 1079.27 2735.13 1081.19 2735.14 1095.04 2735.19
 1097.68  2735.2 1100.45 2735.22 1112.73 2735.26 1116.09 2735.28 1126.62 2735.32
 1129.63 2735.33 1133.55 2735.35 1137.95 2735.38 1147.11 2735.42 1151.73 2735.44
 1156.75 2735.46 1162.11  2735.5 1169.24 2735.53    1175 2735.57 1180.63  2735.6
 1182.53 2735.61 1188.77 2735.65 1193.04 2735.68  1199.4  2735.7    1200 2735.72

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   230.4     .05  681.59      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         230.4  681.59           416.53     500   511.7             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2723.84    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.16    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2723.68    Reach Len. (ft)          416.53     500.00     511.70
  Crit W.S. (ft)                      Flow Area (sq ft)                   633.13
  E.G. Slope (ft/ft)      0.005399    Area (sq ft)                        633.13
  Q Total (cfs)            2016.54    Flow (cfs)                         2016.54
  Top Width (ft)            359.28    Top Width (ft)                      359.28
  Vel Total (ft/s)            3.19    Avg. Vel. (ft/s)                      3.19
  Max Chl Dpth (ft)           3.72    Hydr. Depth (ft)                      1.76
  Conv. Total (cfs)        27443.6    Conv. (cfs)                        27443.6
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    359.43
  Min Ch El (ft)           2719.96    Shear (lb/sq ft)                      0.59
```

Alpha	1.00	Stream Power (lb/ft s)		1.89	
Frctn Loss (ft)	4.35	Cum Volume (acre-ft)	0.01	71.17	0.03
C & E Loss (ft)	0.02	Cum SA (acres)	0.05	47.92	0.12

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 15000

INPUT
Description:
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2730.05	36.02	2730.08	61.71	2730.1	98.25	2730.07	126.19	2730.04
139.09	2730.03	170.41	2730	212.98	2726.01	224.05	2725	268.15	2720.88
277.2	2720.04	277.67	2720	278.41	2719.99	289.69	2719.9	291.03	2719.89
297.4	2719.83	301.21	2719.79	306.86	2719.75	310.21	2719.7	313.61	2719.67
320.2	2719.6	321.66	2719.58	322.77	2719.57	326.22	2719.52	330.64	2719.46
338.25	2719.41	396.59	2719.25	415.79	2719.22	452.65	2719.47	460.61	2719.52
466.15	2719.55	534.12	2718.48	534.38	2718.45	535.92	2718.32	540.82	2718.4
541.84	2718.32	546.91	2717.9	548.05	2717.82	554.57	2717.42	558.88	2717.14
570	2716.47	573.71	2716.25	578.88	2715.93	591.3	2715.26	592.68	2715.18
593.44	2715.14	596.28	2715	599.19	2714.97	602.02	2714.99	602.51	2715
603.51	2715.01	603.74	2715.02	612.01	2715.14	613.28	2715.15	639.09	2717.38
652.43	2718.06	657.02	2718.19	662.35	2718.07	671.17	2717.86	679.41	2717.87
683.03	2717.96	723.21	2718.28	778.66	2719.08	781.72	2719.14	817.57	2720
818.4	2720.05	879.94	2723.96	893.45	2724.78	897.1	2725	914.37	2726.44
919.59	2726.83	937.13	2728.18	947.03	2728.97	960.44	2730	966.38	2730.21
976.82	2730.52	977.94	2730.5	987.7	2730.77	989.36	2730.75	1083.03	2731.44
1171.67	2730.98	1175.05	2730.95	1180.2	2730.93	1185.08	2730.91	1197.17	2730.72

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	277.2	.05	818.4	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
277.2	818.4	567.65	500	398.29	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2719.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.050	
W.S. Elev (ft)	2719.10	Reach Len. (ft)	567.65	500.00	398.29
Crit W.S. (ft)		Flow Area (sq ft)		414.06	
E.G. Slope (ft/ft)	0.016347	Area (sq ft)		414.06	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	285.09	Top Width (ft)		285.09	
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)		4.87	
Max Chl Dpth (ft)	4.13	Hydr. Depth (ft)		1.45	
Conv. Total (cfs)	15772.1	Conv. (cfs)		15772.1	
Length Wtd. (ft)	499.98	Wetted Per. (ft)		285.34	
Min Ch El (ft)	2714.97	Shear (lb/sq ft)		1.48	
Alpha	1.00	Stream Power (lb/ft s)		7.21	
Frctn Loss (ft)	3.90	Cum Volume (acre-ft)	0.01	65.16	0.03

```
  C & E Loss (ft)             0.08    Cum SA (acres)              0.05      44.22       0.12


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 14500

INPUT
Description:
Station Elevation Data    num=     136
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2725.88   43.83 2725.44   52.98 2725.38   66.52 2725.35   68.13 2725.34
   75.89 2725.29   89.09 2725.26   90.94 2725.25   94.38 2725.23   97.05 2725.22
  100.34  2725.2  109.25 2725.18     114 2725.16  117.59 2725.15  133.79 2725.09
  138.89 2725.07   163.5    2725  168.94 2724.49  171.92 2724.21  182.65  2723.2
  202.88  2721.3  203.91  2721.2  217.11    2720  237.37 2718.68  257.61 2717.41
  280.99 2715.76   285.1 2715.49   290.4 2715.13  292.39    2715  296.07 2714.98
  299.46 2714.97  303.07 2714.96  303.81 2714.95  306.95 2714.94   322.3 2714.89
  326.05 2714.87  337.36 2714.82  342.67 2714.78  350.01 2714.75  361.36  2714.7
  365.68 2714.67  368.59 2714.65  401.37 2714.46  416.85 2714.47  422.82 2714.46
  436.26 2714.55  443.98 2714.57  451.45 2714.61  456.46 2714.63     462 2714.66
  475.42 2714.73  518.72 2714.27  519.08 2714.26  519.42 2714.25  521.51  2714.2
  526.27 2714.05  533.64 2713.77  534.07 2713.75  541.75 2713.72   545.6 2713.54
  549.55 2713.34  556.03    2713  567.34 2712.28  592.85  2710.5  594.61 2710.44
  599.48    2710  603.29 2710.41  610.93 2711.48  613.93 2711.97  616.23 2711.68
  617.49 2711.87  630.16 2711.77  643.53 2711.97  646.71 2712.14  663.38 2712.71
  666.03 2712.85  673.76 2713.29  678.96 2713.59  698.26 2713.85  702.18 2714.04
  706.58 2714.22  709.61 2714.34  749.92  2714.9  755.24 2714.91  758.75 2714.93
  768.77 2714.99   770.4    2715  776.66 2715.16  777.54  2715.2  779.56  2715.3
  810.94 2716.58  827.53 2717.38  841.92 2718.02  853.12 2718.48   880.3 2719.87
  880.49 2719.88  880.72 2719.89  880.91  2719.9  882.91    2720  907.76  2721.8
  923.94 2722.89  935.37 2723.68  936.45 2723.75  941.72  2724.1  948.39 2724.46
  958.11    2725  962.43 2725.03  965.99 2725.05  982.65 2725.43  987.94 2725.51
  993.05 2725.58  999.13 2725.67 1004.98 2725.75 1015.46 2725.88 1020.63 2725.95
 1025.41 2726.01 1032.75 2726.06 1037.09 2726.12 1045.21 2726.21 1052.97 2726.29
 1062.93 2726.37 1072.77 2726.44 1083.32  2726.5 1085.62 2726.48 1087.87 2726.47
 1097.18 2726.52 1099.96  2726.5 1109.33 2726.58 1113.42 2726.55 1117.33 2726.51
 1124.33 2726.58 1126.24 2726.56 1133.11 2726.64 1136.95  2726.6 1187.57 2726.85
    1200 2726.86

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   290.4     .05   770.4      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         290.4   770.4           491.21     500  511.52             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2715.50    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.11    Wt. n-Val.                0.100      0.050      0.100
  W.S. Elev (ft)           2715.38    Reach Len. (ft)          491.21     500.00     511.52
  Crit W.S. (ft)                      Flow Area (sq ft)          0.47     747.81       2.43
  E.G. Slope (ft/ft)      0.004559    Area (sq ft)               0.47     747.81       2.43
```

Q Total (cfs)	2016.54	Flow (cfs)	0.12	2015.54	0.88
Top Width (ft)	494.92	Top Width (ft)	3.73	480.00	11.19
Vel Total (ft/s)	2.69	Avg. Vel. (ft/s)	0.25	2.70	0.36
Max Chl Dpth (ft)	5.38	Hydr. Depth (ft)	0.13	1.56	0.22
Conv. Total (cfs)	29865.8	Conv. (cfs)	1.8	29851.0	13.0
Length Wtd. (ft)	500.00	Wetted Per. (ft)	3.73	480.37	11.20
Min Ch El (ft)	2710.00	Shear (lb/sq ft)	0.04	0.44	0.06
Alpha	1.01	Stream Power (lb/ft s)	0.01	1.19	0.02
Frctn Loss (ft)	4.10	Cum Volume (acre-ft)	0.00	58.49	0.01
C & E Loss (ft)	0.02	Cum SA (acres)	0.02	39.83	0.07

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 14000

INPUT
Description:
Station Elevation Data num= 108

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2723.16	11.97	2723.31	130.07	2724.73	136.55	2724.81	140.09	2724.85
142.08	2724.88	152.44	2725	199.96	2725.01	248.79	2725	263.95	2724.3
297.06	2720	297.6	2719.93	297.98	2719.88	334.83	2715	403.77	2712.39
466.07	2710	472.92	2709.95	482.58	2709.87	486.23	2709.9	498.68	2710
520.28	2710.04	530	2710.03	540.14	2710.02	547.29	2710.01	553.74	2710
554.14	2710.01	554.33	2710	569.4	2709.93	650.16	2709.48	741.86	2709.84
750.36	2709.98	751.21	2710	752.05	2710.01	767.95	2710.13	781.43	2710.24
782.09	2710.25	804.49	2710.18	808.71	2710.19	818.85	2710.16	823.16	2710.15
853.41	2710.76	855.83	2710.88	860.05	2711.03	860.5	2711.04	867.27	2711.14
873.71	2711.24	878.33	2711.47	878.88	2711.48	885.97	2711.84	886.6	2711.86
887.23	2711.88	898.59	2712.46	899.33	2712.49	905.93	2712.75	913.22	2713
931.36	2714.01	931.54	2714.02	932.11	2714.04	932.65	2714.07	950.15	2715
961.33	2715.64	964.18	2715.79	983.58	2716.83	985.15	2716.91	998.02	2717.57
998.95	2717.61	999.98	2717.66	1006.33	2717.95	1008.67	2718.04	1015.67	2718.35
1017.1	2718.4	1024.4	2718.61	1027.67	2718.73	1032.02	2718.89	1032.98	2718.91
1033.6	2718.93	1034.28	2718.95	1037.53	2719.04	1038.2	2719.05	1041	2719.11
1041.63	2719.12	1044.31	2719.13	1046.3	2719.17	1056.03	2719.24	1058.17	2719.28
1058.42	2719.276	1058.72	2719.27	1061.1	2719.31	1062.51	2719.29	1074.35	2719.19
1075.03	2719.21	1075.69	2719.22	1077.34	2719.19	1077.52	2719.2	1081.69	2719.11
1091.87	2718.93	1122.5	2719.7	1125.46	2719.69	1129.76	2719.67	1140.65	2719.64
1145.11	2719.63	1157.33	2719.61	1163.3	2719.68	1167.78	2719.72	1177.58	2719.82
1183.22	2719.86	1199.18	2720	1200	2720.03				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	297.6	.05	1058.4	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
297.6	1058.4	559.57	500	476.48	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2711.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.050	

W.S. Elev (ft)	2711.08	Reach Len. (ft)	559.57	500.00	476.48
Crit W.S. (ft)		Flow Area (sq ft)		464.89	
E.G. Slope (ft/ft)	0.018903	Area (sq ft)		464.89	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	424.96	Top Width (ft)		424.96	
Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)		4.34	
Max Chl Dpth (ft)	1.60	Hydr. Depth (ft)		1.09	
Conv. Total (cfs)	14667.1	Conv. (cfs)		14667.1	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		425.00	
Min Ch El (ft)	2709.48	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		5.60	
Frctn Loss (ft)	4.91	Cum Volume (acre-ft)		51.53	
C & E Loss (ft)	0.05	Cum SA (acres)		34.63	

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 13500

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2716.6	70.17	2715.73	72.99	2715.75	79.62	2715.58	99.87	2715.04
101.53	2715.02	103.96	2715	121.01	2712.99	133.07	2711.47	144.39	2710
144.77	2709.99	145.13	2709.98	163.01	2708.84	176.15	2708.13	176.4	2708.12
192.41	2707.72	196.13	2707.55	211.92	2707.07	225.27	2706.6	237.62	2706.15
244.84	2705.94	247.49	2705.9	256.61	2705.62	258.71	2705.59	271.43	2705.31
272.47	2705.29	286.42	2705	287.64	2704.99	299.64	2704.92	352.4	2704.61
381.25	2704.75	393.45	2704.76	428.15	2704.89	433.36	2704.92	447.84	2704.96
448.75	2704.97	452.14	2704.98	458.75	2704.96	499.97	2704.84	505.75	2704.83
506.38	2704.82	553.13	2704.62	559.53	2704.59	577.98	2704.52	597.63	2704.46
616.99	2704.54	630.89	2704.62	655.71	2704.75	669.94	2704.82	701.17	2704.97
702.36	2704.98	704.02	2704.99	707.2	2705	710.4	2705.03	786.29	2706.96
838.8	2708.26	839.2	2708.27	855.52	2708.72	865.88	2708.97	902.02	2710
928.38	2711.04	1004.17	2714.01	1027.87	2715	1047.17	2716.15	1110.5	2720
1178.71	2721.11	1200	2721.46						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	176.4	.05	838.8	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
176.4	838.8	262.87	500	602.71	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2706.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.050	
W.S. Elev (ft)	2706.29	Reach Len. (ft)	262.87	500.00	602.71
Crit W.S. (ft)		Flow Area (sq ft)		714.22	
E.G. Slope (ft/ft)	0.006001	Area (sq ft)		714.22	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	525.85	Top Width (ft)		525.85	

Vel Total (ft/s)	2.82	Avg. Vel. (ft/s)	2.82
Max Chl Dpth (ft)	1.83	Hydr. Depth (ft)	1.36
Conv. Total (cfs)	26030.5	Conv. (cfs)	26030.5
Length Wtd. (ft)	500.00	Wetted Per. (ft)	525.88
Min Ch El (ft)	2704.46	Shear (lb/sq ft)	0.51
Alpha	1.00	Stream Power (lb/ft s)	1.44
Frctn Loss (ft)	4.74	Cum Volume (acre-ft)	44.77
C & E Loss (ft)	0.01	Cum SA (acres)	29.18

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 13000

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2715.06	4.56	2715.04	10.02	2715.03	13.41	2715.01	16.24	2715
19.91	2714.83	21.83	2714.68	45.11	2713.04	64.02	2711.37	70.92	2710.84
79.3	2710	105.39	2706.83	105.6	2706.8	120.6	2705	127.63	2704.63
140.75	2703.94	150.84	2703.63	164.49	2703.01	172.65	2702.63	179.54	2702.3
186.63	2701.96	197.59	2701.82	203.64	2701.56	207.48	2701.4	209.86	2701.3
212.97	2701.16	214.99	2701.07	221.76	2701.15	224.09	2701.04	231.45	2701.15
233.69	2701.05	241.53	2701.14	252.21	2700.82	258.66	2700.69	268.51	2700.74
283.4	2700.8	306.77	2700.88	324.78	2700.64	337.21	2700.6	449.54	2700.29
472.5	2700.16	475.64	2700.15	481.82	2700.13	497.11	2700.11	509.73	2700.09
538.15	2700.01	539.94	2700	591.12	2699.86	607.12	2699.88	617.88	2699.9
630.35	2699.92	633.76	2699.93	644.43	2699.95	653.34	2699.96	670	2700
680.53	2700.35	681.75	2700.42	683.95	2700.54	696.84	2701.13	711.57	2701.79
719.66	2702.28	722.42	2702.42	736.79	2703.32	741.59	2703.6	762.8	2705
764.81	2705.13	766.25	2705.24	781.2	2706.39	781.43	2706.41	820.35	2709.36
828.13	2710	886.2	2714.18	897.52	2715	945.4	2715.85	948.24	2715.9
949.17	2715.91	979.69	2716.46	980.92	2716.48	1011.92	2717.04	1013.31	2717.06
1035.1	2717.46	1036.61	2717.48	1053.24	2717.79	1054.79	2717.81	1067.44	2718.04
1078.23	2718.23	1081.27	2718.26	1092.68	2718.46	1101.83	2718.61	1108.42	2718.71
1114.14	2718.8	1119.27	2718.87	1127.07	2718.93	1131.24	2718.99	1200	2719.59

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	105.6	.05	781.2	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.6	781.2	342.99	500	550.25	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2701.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.050	
W.S. Elev (ft)	2701.40	Reach Len. (ft)	342.99	500.00	550.25
Crit W.S. (ft)		Flow Area (sq ft)		508.78	
E.G. Slope (ft/ft)	0.017175	Area (sq ft)		508.78	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	495.55	Top Width (ft)		495.55	

Vel Total (ft/s)	3.96	Avg. Vel. (ft/s)	3.96
Max Chl Dpth (ft)	1.54	Hydr. Depth (ft)	1.03
Conv. Total (cfs)	15386.9	Conv. (cfs)	15386.9
Length Wtd. (ft)	500.00	Wetted Per. (ft)	495.61
Min Ch El (ft)	2699.86	Shear (lb/sq ft)	1.10
Alpha	1.00	Stream Power (lb/ft s)	4.36
Frctn Loss (ft)	4.27	Cum Volume (acre-ft)	37.75
C & E Loss (ft)	0.04	Cum SA (acres)	23.31

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 12500

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2715.05	9.16	2715.03	14.99	2715.01	20.92	2715	41.96	2714.76
42.79	2714.75	43.48	2714.74	44.94	2714.71	47.97	2714.66	97.73	2713.94
110.1	2713.69	128.79	2713.26	173.13	2712.27	211.13	2711.5	280.04	2710
321.65	2706.77	340.41	2705.09	341.41	2705	390.3	2701.87	400.5	2701.19
418.07	2700	435.67	2699.53	471.99	2698.54	492.85	2697.97	504.24	2697.65
512.67	2697.42	519.77	2697.23	526.87	2697.06	533.04	2696.91	538.23	2696.77
542.44	2696.65	580.08	2695.97	598.95	2695.83	602.8	2695.82	653.18	2696.33
701.72	2695.97	706.09	2695.96	734.24	2695.93	828.18	2695.39	865.37	2695.09
876.13	2695.08	889.59	2695.07	897.57	2695.06	903.2	2695.04	909.3	2695.01
915.72	2695	924.03	2694.98	937.18	2694.95	949.22	2694.92	952.34	2694.93
980.6	2695	1012.9	2697.62	1038.4	2700	1064.42	2703.75	1073.08	2705
1081.92	2706.04	1095.25	2707.62	1114.5	2709.92	1115.13	2710	1117.16	2710.06
1119.43	2710.09	1126.75	2710.22	1157.53	2710.8	1217.13	2711.93	1218.24	2711.95
1219.35	2711.97	1240.86	2712.38	1257.25	2712.69	1273.28	2712.94	1292.73	2713.26
1301.12	2713.41	1308.15	2713.54	1313.77	2713.65	1318.64	2713.73	1324.24	2713.84
1329	2713.93	1332.5	2713.99	1335.6	2714.04	1336.88	2714.06	1338.68	2714.09
1340.37	2714.12	1341.72	2714.14	1345.15	2714.2	1348.14	2714.25	1349.16	2714.27
1351.72	2714.31	1353.99	2714.35	1357.19	2714.41	1358.51	2714.43	1365.71	2714.5
1366.8	2714.52	1367.81	2714.54	1368.81	2714.55	1390.9	2714.74	1392.14	2714.76
1398.2	2714.84	1401.41	2714.87	1402.12	2714.88	1405.16	2714.89	1417.65	2714.93
1432.26	2714.95	1449.19	2714.99	1470.5	2714.98	1475.98	2714.99	1492.49	2715
1500	2715.03								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	400.5	.05	1114.5	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
400.5	1114.5	413.55	500	554.72	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2697.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.050	
W.S. Elev (ft)	2697.22	Reach Len. (ft)	413.55	500.00	554.72
Crit W.S. (ft)		Flow Area (sq ft)		728.00	

```
  E.G. Slope (ft/ft)      0.005096    Area (sq ft)                        728.00
  Q Total (cfs)            2016.54    Flow (cfs)                         2016.54
  Top Width (ft)            487.82    Top Width (ft)                      487.82
  Vel Total (ft/s)            2.77    Avg. Vel. (ft/s)                      2.77
  Max Chl Dpth (ft)           2.30    Hydr. Depth (ft)                      1.49
  Conv. Total (cfs)        28248.9    Conv. (cfs)                        28248.9
  Length Wtd. (ft)          500.00    Wetted Per. (ft)                    487.93
  Min Ch El (ft)           2694.92    Shear (lb/sq ft)                      0.47
  Alpha                       1.00    Stream Power (lb/ft s)                1.31
  Frctn Loss (ft)             4.25    Cum Volume (acre-ft)                 30.65
  C & E Loss (ft)             0.03    Cum SA (acres)                       17.67


Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 12000

INPUT
Description:
Station Elevation Data    num=      68
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2703.51   40.49 2701.91   67.65 2700.84   89.06    2700   97.55 2699.77
  112.58 2699.43  275.17 2695.27  279.66 2695.24  281.64 2695.22  284.75  2695.2
  290.11 2695.19  297.25 2695.12  299.84 2695.09   309.6 2695.02   310.4 2695.01
   312.6    2695  393.26 2693.49  402.35  2693.3  522.47 2690.89  565.84 2690.01
  568.78    2690  586.41 2689.96   590.4 2689.95  598.03 2689.93   600.8 2689.94
  621.17    2690  621.43 2690.03  623.46 2690.04  655.59 2691.97  680.03  2693.4
  687.73 2693.82  692.15 2694.06  710.75    2695  712.27 2695.12  713.07 2695.18
  725.91 2696.09     726  2696.1  735.94 2696.85  779.17 2699.51   781.9 2699.69
  783.25 2699.78  783.93 2699.83   787.1    2700  813.17 2701.45  820.44 2701.81
  830.88 2702.33  846.79 2703.25  857.95 2703.76  864.66 2704.06  882.75    2705
  886.39 2705.01  904.09 2705.24  931.03 2705.53   952.9 2705.67  962.72 2705.76
  976.39 2705.77  991.79 2705.86  1046.4 2706.18 1094.64 2706.33  1114.1 2706.34
 1116.51 2706.35 1118.86 2706.37 1137.72 2706.44 1142.23 2706.45 1146.57 2706.46
 1151.03 2706.47 1174.42 2706.58 1195.31 2706.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   309.6     .05     726      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         309.6     726           529.16     500  481.88             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2693.06    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.45    Wt. n-Val.                           0.050
  W.S. Elev (ft)           2692.62    Reach Len. (ft)          529.16     500.00     481.88
  Crit W.S. (ft)                      Flow Area (sq ft)                   376.27
  E.G. Slope (ft/ft)      0.016909    Area (sq ft)                        376.27
  Q Total (cfs)            2016.54    Flow (cfs)                         2016.54
  Top Width (ft)            230.29    Top Width (ft)                      230.29
  Vel Total (ft/s)            5.36    Avg. Vel. (ft/s)                      5.36
  Max Chl Dpth (ft)           2.69    Hydr. Depth (ft)                      1.63
```

Conv. Total (cfs)	15507.9	Conv. (cfs)	15507.9
Length Wtd. (ft)	500.00	Wetted Per. (ft)	230.39
Min Ch El (ft)	2689.93	Shear (lb/sq ft)	1.72
Alpha	1.00	Stream Power (lb/ft s)	9.24
Frctn Loss (ft)	4.32	Cum Volume (acre-ft)	24.31
C & E Loss (ft)	0.08	Cum SA (acres)	13.55

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 11500

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2702.9	1.82	2702.86	12.41	2702.67	37.49	2702.45	47.31	2702.29
63.93	2702.18	71.97	2702.05	81.4	2701.92	94.49	2701.76	105.66	2701.57
119.52	2701.3	134.2	2700.97	146.2	2700.66	154.79	2700.43	156.87	2700.38
168.72	2700.11	171.78	2700.01	173.38	2700	179.78	2699.63	181	2699.52
193.53	2698.7	201.47	2697.89	209.61	2697.26	229.85	2695	232.03	2694.75
248.25	2692.86	273.24	2690	273.62	689.998	275.04	2689.99	284.42	2689.73
302.37	2689.28	321.12	2689.04	355.16	2688.64	463.48	2686.95	470.49	2686.83
512.61	2686.08	524.51	2685.88	574.45	2685	583.47	2684.99	596.84	2684.98
606.42	2684.99	617.29	2685	628.59	2685.67	691.13	2690	691.2	2690.01
712.15	2692.58	733.08	2695	743.83	2696.79	748.73	2697.57	754.24	2698.45
764.65	2700	770.08	2700.01	770.78	2700.02	774.13	2700.03	817.36	2700.08
821.66	2700.09	831.36	2700.1	840.43	2700.12	846.77	2700.13	851.88	2700.14
863	2700.16	870.13	2700.17	882.61	2700.19	891.15	2700.21	904.95	2700.25
961.77	2700.26	969.35	2700.25	985.15	2700.26	996.72	2700.25	1002.7	2700.27
1019.08	2700.25	1024.42	2700.27	1041.13	2700.29	1066.02	2700.3	1135.62	2700.88
1160.77	2700.89	1167.63	2700.9	1174.66	2700.91	1180.97	2700.94	1196.92	2700.98

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	273.6	.05	691.2	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.6	691.2	522.87	500	468.7	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2688.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.		0.050	
W.S. Elev (ft)	2688.49	Reach Len. (ft)	522.87	500.00	468.70
Crit W.S. (ft)		Flow Area (sq ft)		598.68	
E.G. Slope (ft/ft)	0.005223	Area (sq ft)		598.68	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	304.69	Top Width (ft)		304.69	
Vel Total (ft/s)	3.37	Avg. Vel. (ft/s)		3.37	
Max Chl Dpth (ft)	3.51	Hydr. Depth (ft)		1.96	
Conv. Total (cfs)	27902.7	Conv. (cfs)		27902.7	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		304.83	
Min Ch El (ft)	2684.98	Shear (lb/sq ft)		0.64	

Alpha	1.00	Stream Power (lb/ft s)	2.16
Frctn Loss (ft)	5.36	Cum Volume (acre-ft)	18.72
C & E Loss (ft)	0.05	Cum SA (acres)	10.48

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 11000

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2696.64	50.96	2696.12	89.44	2695.46	93.02	2695.45	98.57	2695.42
105.48	2695.4	113.38	2695.37	122.61	2695.34	129.76	2695.31	142.4	2695.29
149.82	2695.26	153.42	2695.25	162.16	2695.22	165.4	2695.21	181.35	2695.16
185.12	2695.15	205.43	2695.09	207.7	2695.08	210.9	2695.07	225.66	2695.03
238.7	2695	242.93	2694.66	244.22	2694.56	247.48	2694.31	271.55	2692.41
292.27	2690.7	295.98	2690.4	300.67	2690	318.62	2688.64	327.11	2688.01
358.66	2685.59	361.2	2685.4	363.33	2685.25	366.3	2685	458.66	2683.1
497.43	2682.35	521.19	2681.9	525.64	2681.78	539.68	2681.53	555.36	2681.08
575.83	2680.48	592.15	2680	597.41	2679.9	598.97	2679.87	602.2	2679.93
603.49	2679.95	606.14	2680	613.27	2680.17	615.21	2680.21	665.07	2681.35
710.3	2682.34	736.44	2682.89	748.66	2683.13	767.48	2683.52	784.44	2683.87
791.61	2684.02	816.53	2684.52	821.69	2684.62	825.15	2684.68	827.83	2684.71
840.4	2684.99	840.81	2685	846.84	2685.53	849.23	2685.74	852.14	2686
868.78	2687.46	881.69	2688.56	888.1	2689.11	898.74	2690	914.02	2691.5
921.23	2692.28	940.06	2694.21	944.46	2694.66	947.75	2695	1024.48	2695.32
1031.17	2695.35	1100	2695.08						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	366.3	.05	840.4	.1

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
366.3	840.4	685.64	500	271.35	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2683.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.050	
W.S. Elev (ft)	2682.59	Reach Len. (ft)	685.64	500.00	271.35
Crit W.S. (ft)	2682.59	Flow Area (sq ft)		310.64	
E.G. Slope (ft/ft)	0.033383	Area (sq ft)		310.64	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	237.57	Top Width (ft)		237.57	
Vel Total (ft/s)	6.49	Avg. Vel. (ft/s)		6.49	
Max Chl Dpth (ft)	2.72	Hydr. Depth (ft)		1.31	
Conv. Total (cfs)	11036.8	Conv. (cfs)		11036.8	
Length Wtd. (ft)	500.00	Wetted Per. (ft)		237.64	
Min Ch El (ft)	2679.87	Shear (lb/sq ft)		2.72	
Alpha	1.00	Stream Power (lb/ft s)		17.69	
Frctn Loss (ft)	2.59	Cum Volume (acre-ft)		13.50	
C & E Loss (ft)	0.17	Cum SA (acres)		7.37	

```
Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical
         depth, the calculated water surface came back below critical depth.  This indicates that there
         is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION


RIVER: BroadCreek
REACH: BroadCreek         RS: 10500

INPUT
Description:
Station Elevation Data    num=      82
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 2690.09  162.98 2690.74  239.66 2690.44  256.83 2690.38  297.93 2690.23
  307.68 2690.19  357.33    2690   357.6 2689.96  363.48 2689.17  379.89 2686.94
  392.93    2685  398.66  2684.4  404.22 2683.85  420.86 2682.24  437.31 2680.54
  439.95 2680.29  442.62    2680  467.38 2676.46  468.45 2676.32  472.82 2675.68
  474.25 2675.47  474.63 2675.43  474.94 2675.38  475.31 2675.31  475.58 2675.27
  475.74 2675.25  475.87 2675.23  476.05 2675.21  476.26 2675.18  476.47 2675.17
  476.62 2675.15   535.7  2676.7  571.42 2677.07  574.41 2677.01  584.43 2676.99
   594.6 2676.97   597.3 2676.92  651.24 2676.34  693.98 2676.52  707.26 2676.78
  726.48  2677.2  732.47 2677.38  736.39 2677.36  745.18 2677.64  759.02 2677.98
  766.97 2678.25  770.33 2678.26  775.93 2678.46  782.28 2678.69  785.15  2678.7
  797.14 2679.19  799.05  2679.2  816.77    2680   836.8 2681.21  866.97 2682.91
  891.85 2684.35   904.1    2685  911.47 2685.66  919.47 2686.35  929.35 2687.19
  941.48 2688.21  963.29    2690   963.6 2690.02  967.51 2690.31  969.39 2690.35
  984.07 2691.06   993.6 2691.47 1000.19 2691.83 1012.73 2691.94 1023.22 2692.29
 1031.69 2692.53 1033.97 2692.57 1036.18  2692.6 1043.53 2692.67 1050.62 2692.69
 1056.89 2692.61 1074.44 2692.56 1088.13 2692.42 1115.74 2692.92 1162.66 2694.12
 1185.97    2695    1200 2695.25

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0      .1   357.6     .05   963.6      .1

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         357.6   963.6           527.22     500  474.76             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (ft)           2679.42    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.09    Wt. n-Val.                            0.050
  W.S. Elev (ft)           2679.33    Reach Len. (ft)           527.22     500.00     474.76
  Crit W.S. (ft)           2677.74    Flow Area (sq ft)                    847.18
  E.G. Slope (ft/ft)      0.002011    Area (sq ft)                         847.18
  Q Total (cfs)            2016.54    Flow (cfs)                          2016.54
  Top Width (ft)            354.56    Top Width (ft)                       354.56
  Vel Total (ft/s)            2.38    Avg. Vel. (ft/s)                       2.38
  Max Chl Dpth (ft)           4.18    Hydr. Depth (ft)                       2.39
  Conv. Total (cfs)        44966.8    Conv. (cfs)                         44966.8
```

Length Wtd. (ft)	500.00	Wetted Per. (ft)	354.92
Min Ch El (ft)	2675.15	Shear (lb/sq ft)	0.30
Alpha	1.00	Stream Power (lb/ft s)	0.71
Frctn Loss (ft)	2.64	Cum Volume (acre-ft)	6.85
C & E Loss (ft)	0.04	Cum SA (acres)	3.97

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: BroadCreek
REACH: BroadCreek RS: 10000

INPUT
Description:
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	2690.01	5.98	2690.02	29.54	2690.03	48.48	2690.04	72.52	2690.05
85.63	2690.06	100.42	2690.07	247.45	2690.04	266.83	2690.03	307.16	2690.01
321.69	2690	335.35	2688.8	342.19	2688.11	353.46	2687.05	371.69	2685.21
372.48	2685.14	373.83	2685	391.25	2683.05	405.76	2681.35	411.15	2680.74
417.24	2680	417.6	2679.96	432.78	2678.48	433.96	2678.38	445.3	2677.25
455.39	2676.26	467.83	2675	789.7	2675.29	793.13	2676.26	797.29	2677.54
799.22	2678.07	811.26	2678.24	815.6	2678.88	830.06	2679.02	832.84	2679.28
847.89	2679.9	848.4	2679.9	858.97	2679.91	860.68	2679.92	861.79	2679.91
871.79	2679.92	873.4	2679.94	874	2679.93	875.41	2679.92	883.52	2679.93
885.22	2679.94	892.65	2679.95	893.84	2679.96	895.68	2679.95	897.76	2679.93
898.34	2679.92	903.02	2679.93	907.81	2679.97	907.95	2679.96	913.08	2679.98
914.78	2679.99	916.56	2680	917.16	2680.09	918.03	2680.12	918.83	2680.23
919.3	2680.3	919.51	2680.34	919.64	2680.36	919.86	2680.41	934.57	2683.35
938.04	2683.92	940.31	2684.21	941.64	2684.36	942.48	2684.44	943.72	2684.54
975.61	2684.68	983.4	2684.96	984.52	2684.95	985.95	2684.93	1008.03	2684.95
1009.57	2684.96	1010.22	2684.94	1011.73	2684.92	1027.67	2684.95	1030	2684.91
1031.69	2684.84	1038.01	2684.87	1039.91	2684.88	1043.12	2684.89	1044.56	2684.65
1045.36	2684.93	1045.55	2685	1047.54	2685.09	1048.55	2685.14	1049.1	2685.17
1054.81	2685.37	1055.52	2685.4	1056.21	2685.43	1085.26	2686.41	1091.09	2686.63
1193.33	2690	1199.73	2690.1	1200	2690.11				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.1	417.6	.05	848.4	.1

Bank Sta: Left	Right	Coeff Contr.	Expan.
417.6	848.4	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	2676.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.		0.050	
W.S. Elev (ft)	2676.20	Reach Len. (ft)			
Crit W.S. (ft)	2676.20	Flow Area (sq ft)		346.97	
E.G. Slope (ft/ft)	0.036798	Area (sq ft)		346.97	
Q Total (cfs)	2016.54	Flow (cfs)		2016.54	
Top Width (ft)	336.89	Top Width (ft)		336.89	
Vel Total (ft/s)	5.81	Avg. Vel. (ft/s)		5.81	
Max Chl Dpth (ft)	1.20	Hydr. Depth (ft)		1.03	

Conv. Total (cfs)	10512.3	Conv. (cfs)	10512.3
Length Wtd. (ft)		Wetted Per. (ft)	337.08
Min Ch El (ft)	2675.00	Shear (lb/sq ft)	2.36
Alpha	1.00	Stream Power (lb/ft s)	13.74
Frctn Loss (ft)		Cum Volume (acre-ft)	
C & E Loss (ft)		Cum SA (acres)	

SUMMARY OF MANNING'S N VALUES

River:BroadCreek

Reach	River Sta.	n1	n2	n3
BroadCreek	18500	.1	.05	.1
BroadCreek	18000	.1	.05	.1
BroadCreek	17500	.1	.05	.1
BroadCreek	17000	.1	.05	.1
BroadCreek	16500	.1	.05	.1
BroadCreek	16000	.1	.05	.1
BroadCreek	15500	.1	.05	.1
BroadCreek	15000	.1	.05	.1
BroadCreek	14500	.1	.05	.1
BroadCreek	14000	.1	.05	.1
BroadCreek	13500	.1	.05	.1
BroadCreek	13000	.1	.05	.1
BroadCreek	12500	.1	.05	.1
BroadCreek	12000	.1	.05	.1
BroadCreek	11500	.1	.05	.1
BroadCreek	11000	.1	.05	.1
BroadCreek	10500	.1	.05	.1
BroadCreek	10000	.1	.05	.1

SUMMARY OF REACH LENGTHS

River: BroadCreek

Reach	River Sta.	Left	Channel	Right
BroadCreek	18500	490.79	500	571.98
BroadCreek	18000	517.1	500	437.58
BroadCreek	17500	514.7	500	419.42
BroadCreek	17000	543.56	500	318.36
BroadCreek	16500	520.62	500	418.62
BroadCreek	16000	449.42	500	434.17
BroadCreek	15500	416.53	500	511.7
BroadCreek	15000	567.65	500	398.29
BroadCreek	14500	491.21	500	511.52
BroadCreek	14000	559.57	500	476.48
BroadCreek	13500	262.87	500	602.71
BroadCreek	13000	342.99	500	550.25
BroadCreek	12500	413.55	500	554.72
BroadCreek	12000	529.16	500	481.88
BroadCreek	11500	522.87	500	468.7
BroadCreek	11000	685.64	500	271.35
BroadCreek	10500	527.22	500	474.76

BroadCreek	10000

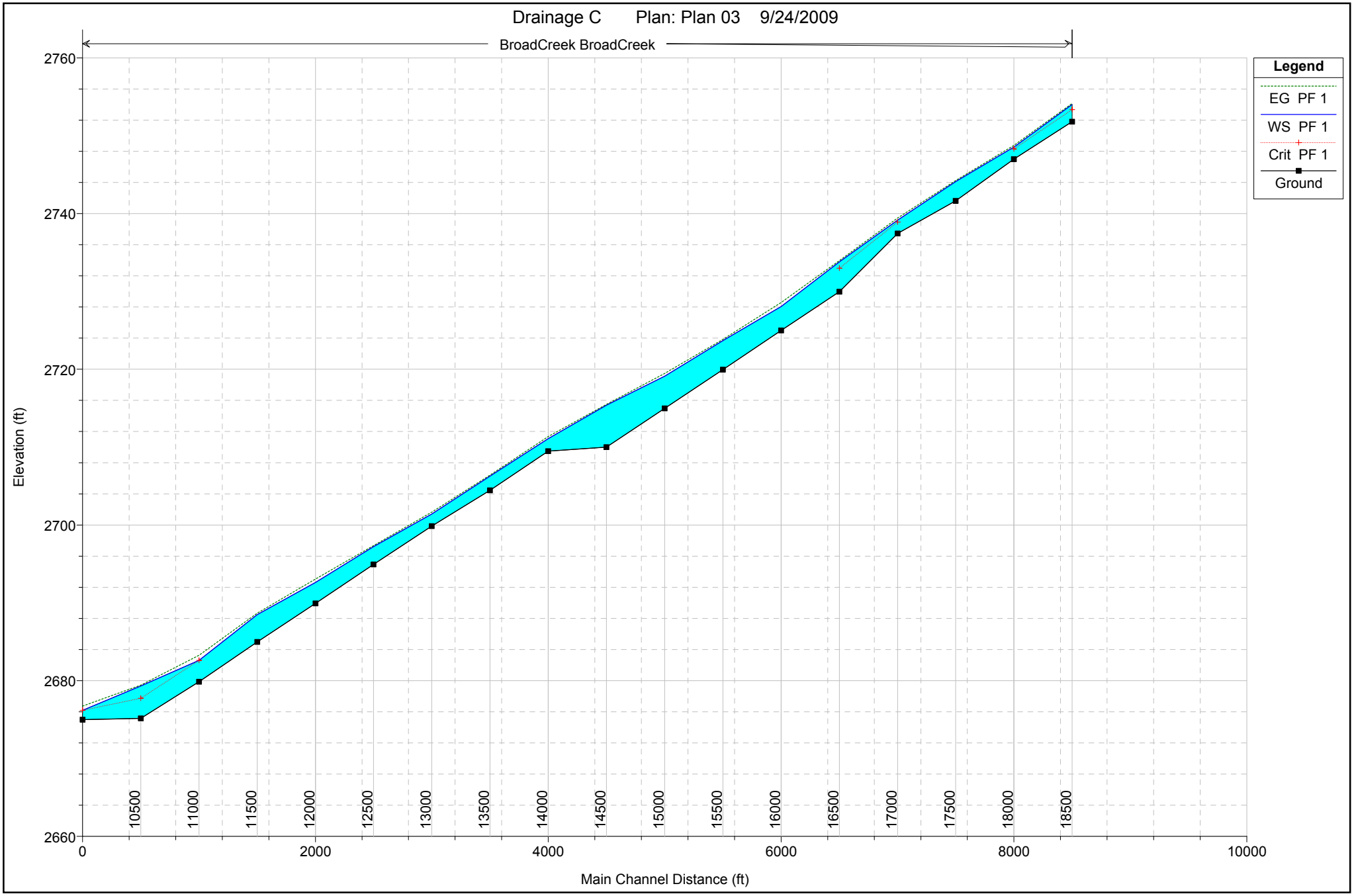
SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: BroadCreek

Reach	River Sta.	Contr.	Expan.
BroadCreek	18500	.1	.3
BroadCreek	18000	.1	.3
BroadCreek	17500	.1	.3
BroadCreek	17000	.1	.3
BroadCreek	16500	.1	.3
BroadCreek	16000	.1	.3
BroadCreek	15500	.1	.3
BroadCreek	15000	.1	.3
BroadCreek	14500	.1	.3
BroadCreek	14000	.1	.3
BroadCreek	13500	.1	.3
BroadCreek	13000	.1	.3
BroadCreek	12500	.1	.3
BroadCreek	12000	.1	.3
BroadCreek	11500	.1	.3
BroadCreek	11000	.1	.3
BroadCreek	10500	.1	.3
BroadCreek	10000	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
BroadCreek	18500	PF 1	2016.54	2751.81	2754.01	2753.36	2754.16	0.007405	3.04	663.87	512.83	0.47
BroadCreek	18000	PF 1	2016.54	2747.00	2748.55	2748.30	2748.77	0.017074	3.77	534.61	558.42	0.68
BroadCreek	17500	PF 1	2016.54	2741.64	2744.11		2744.24	0.005527	2.85	710.96	512.68	0.41
BroadCreek	17000	PF 1	2016.54	2737.46	2739.15	2738.93	2739.45	0.020294	4.36	462.74	443.06	0.75
BroadCreek	16500	PF 1	2016.54	2729.96	2733.79	2732.99	2733.97	0.006774	3.33	605.45	380.81	0.47
BroadCreek	16000	PF 1	2016.54	2724.99	2728.08		2728.57	0.019452	5.64	357.62	225.24	0.79
BroadCreek	15500	PF 1	2016.54	2719.96	2723.68		2723.84	0.005399	3.19	633.13	359.28	0.42
BroadCreek	15000	PF 1	2016.54	2714.97	2719.10		2719.47	0.016347	4.87	414.06	285.09	0.71
BroadCreek	14500	PF 1	2016.54	2710.00	2715.38		2715.50	0.004559	2.70	750.71	494.92	0.38
BroadCreek	14000	PF 1	2016.54	2709.48	2711.08		2711.37	0.018903	4.34	464.89	424.96	0.73
BroadCreek	13500	PF 1	2016.54	2704.46	2706.29		2706.41	0.006001	2.82	714.22	525.85	0.43

BroadCreek	13000	PF 1	2016.54	2699.86	2701.40		2701.65	0.017175	3.96	508.78	495.55	0.69
BroadCreek	12500	PF 1	2016.54	2694.92	2697.22		2697.34	0.005096	2.77	728.00	487.82	0.40
BroadCreek	12000	PF 1	2016.54	2689.93	2692.62		2693.06	0.016909	5.36	376.27	230.29	0.74
BroadCreek	11500	PF 1	2016.54	2684.98	2688.49		2688.67	0.005223	3.37	598.68	304.69	0.42
BroadCreek	11000	PF 1	2016.54	2679.87	2682.59	2682.59	2683.25	0.033383	6.49	310.64	237.57	1.00
BroadCreek	10500	PF 1	2016.54	2675.15	2679.33	2677.74	2679.42	0.002011	2.38	847.18	354.56	0.27
BroadCreek	10000	PF 1	2016.54	2675.00	2676.20	2676.20	2676.72	0.036798	5.81	346.97	336.89	1.01


Drainage C Plan: Plan 03 9/24/2009
BroadCreek BroadCreek
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
2760
2740
2720
2700
2680
2660
0
2000
4000
6000
8000
10000
Main Channel Distance (ft)
10500
11000
11500
12000
12500
13000
13500
14000
14500
15000
15500
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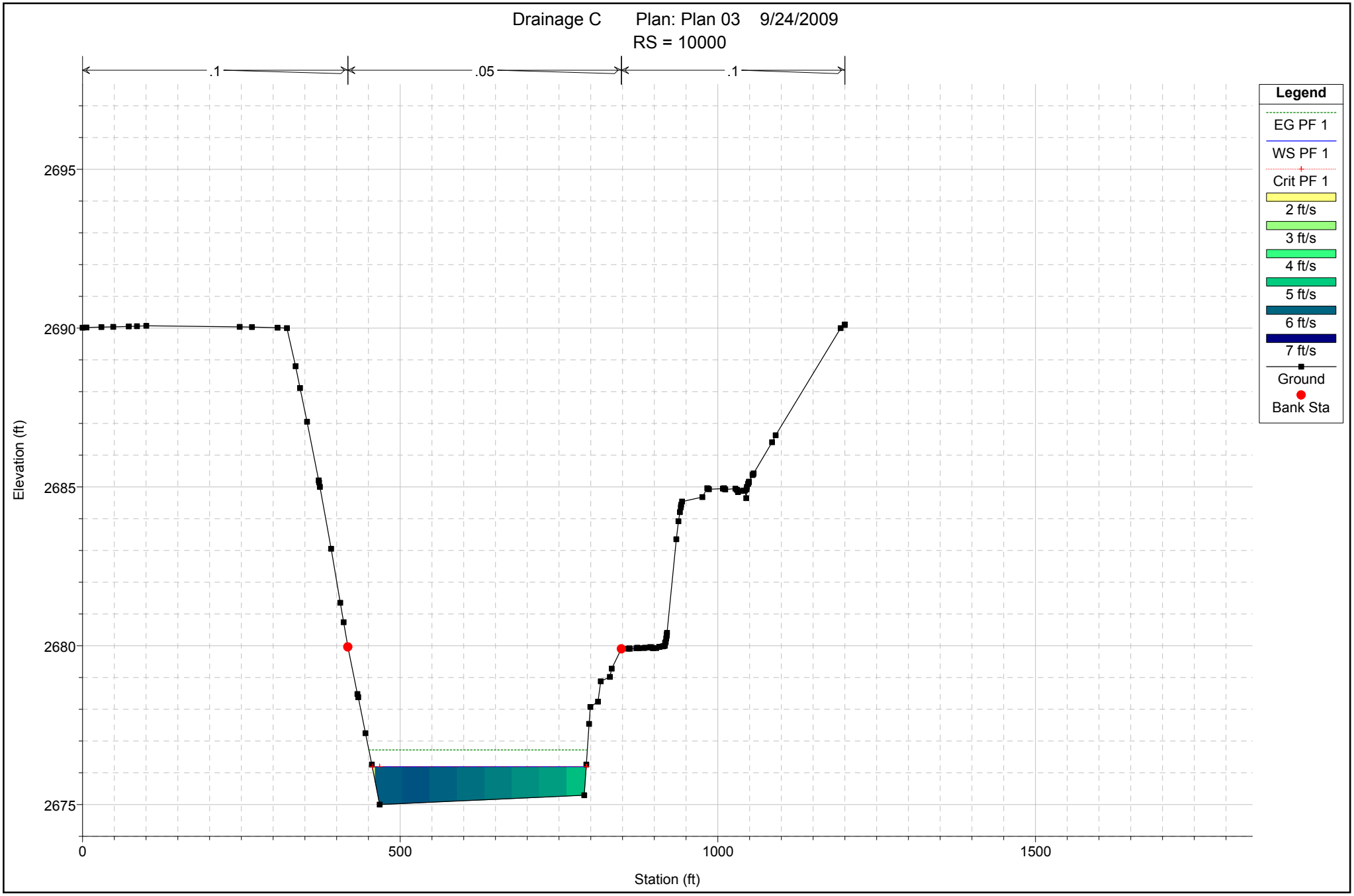
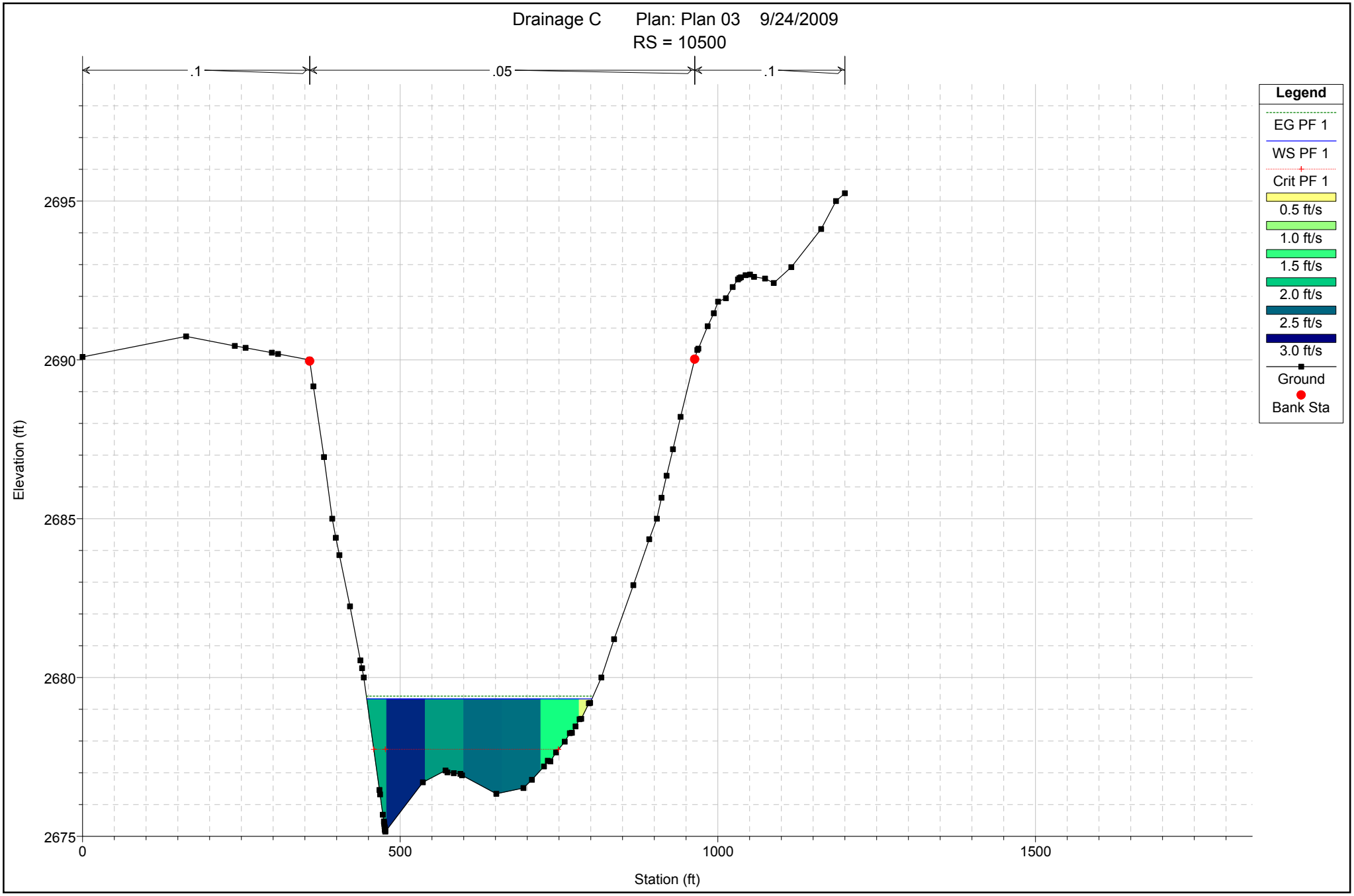
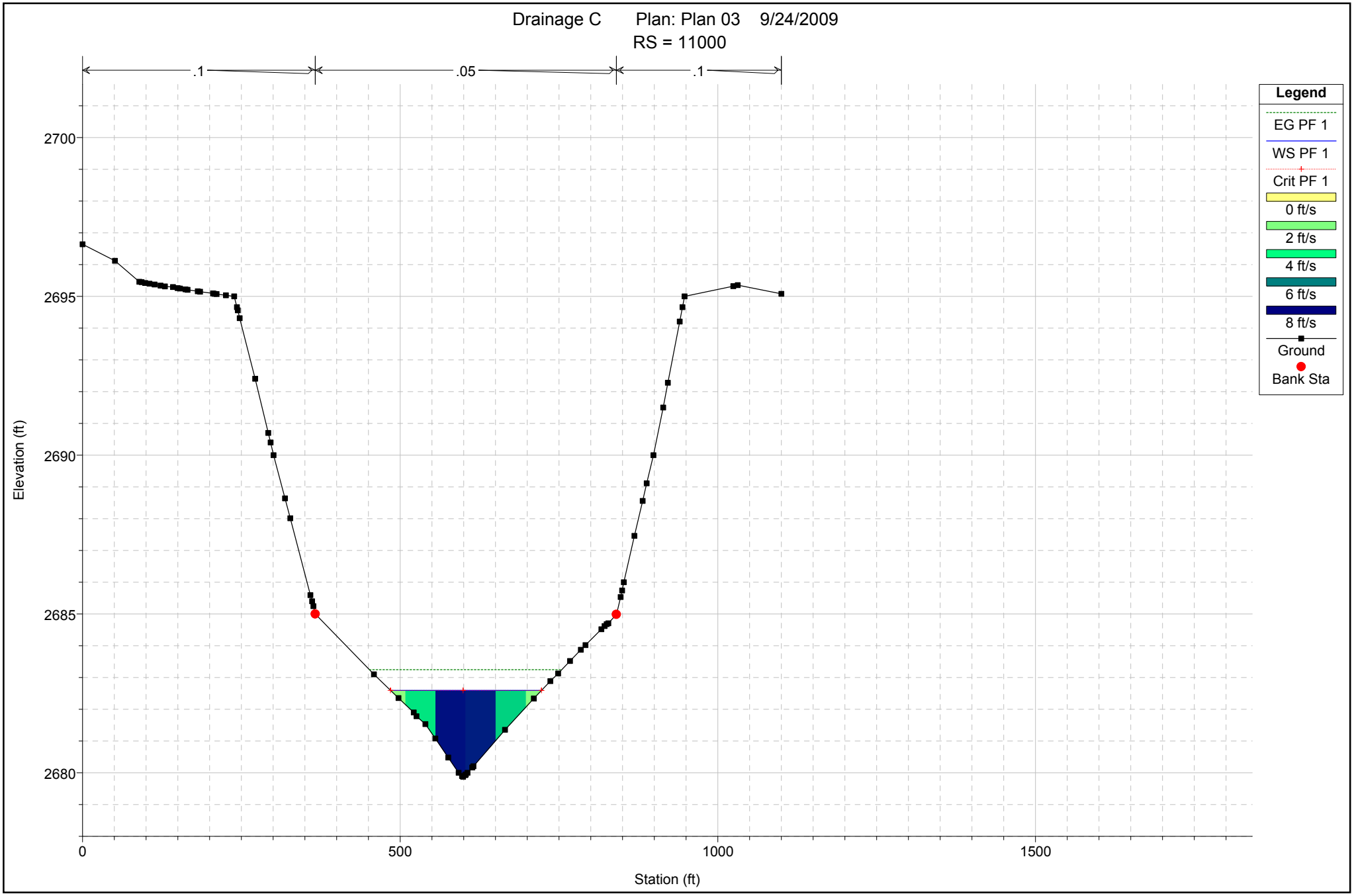
16500
17000
17500
18000
18500



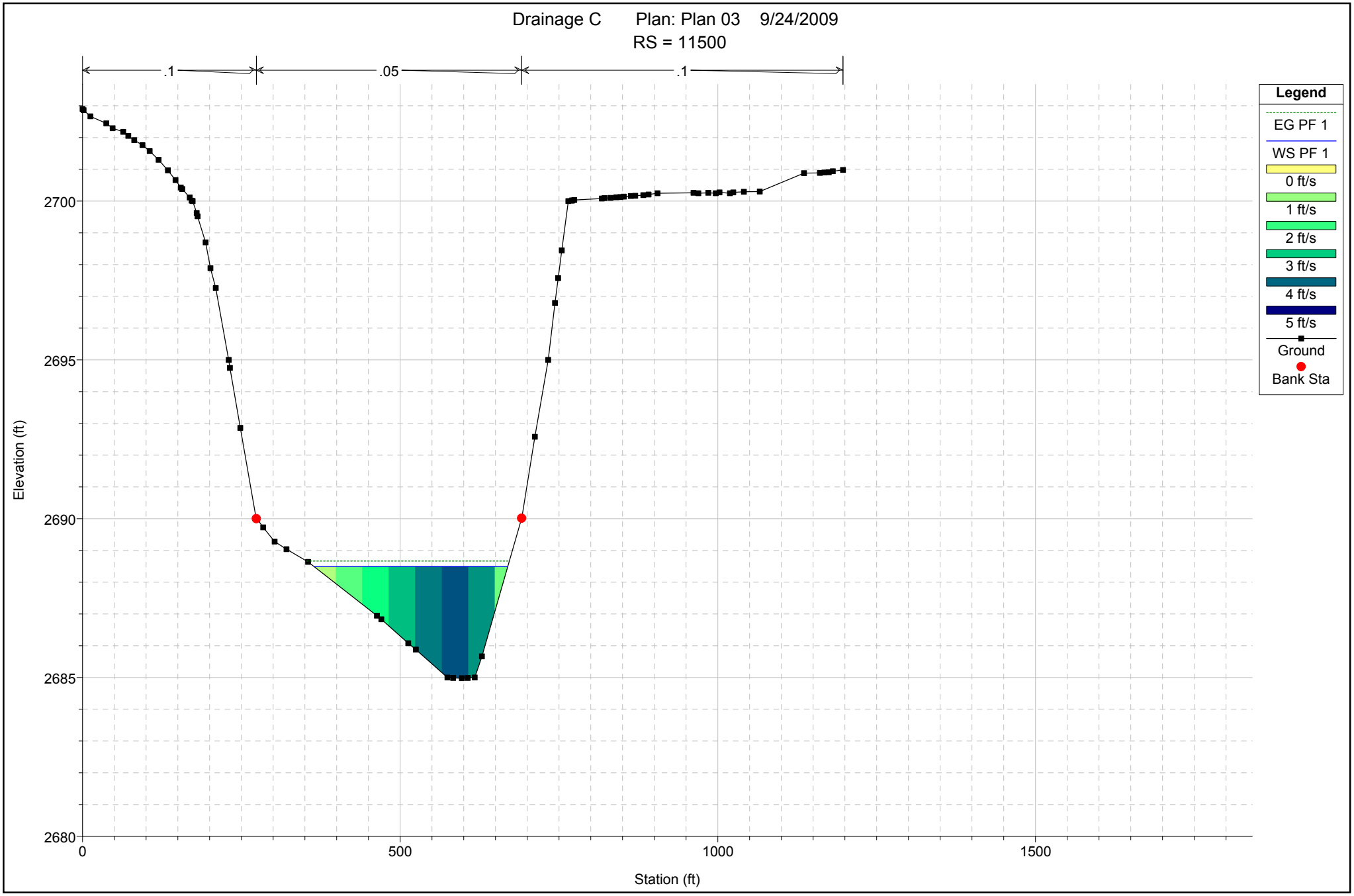
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



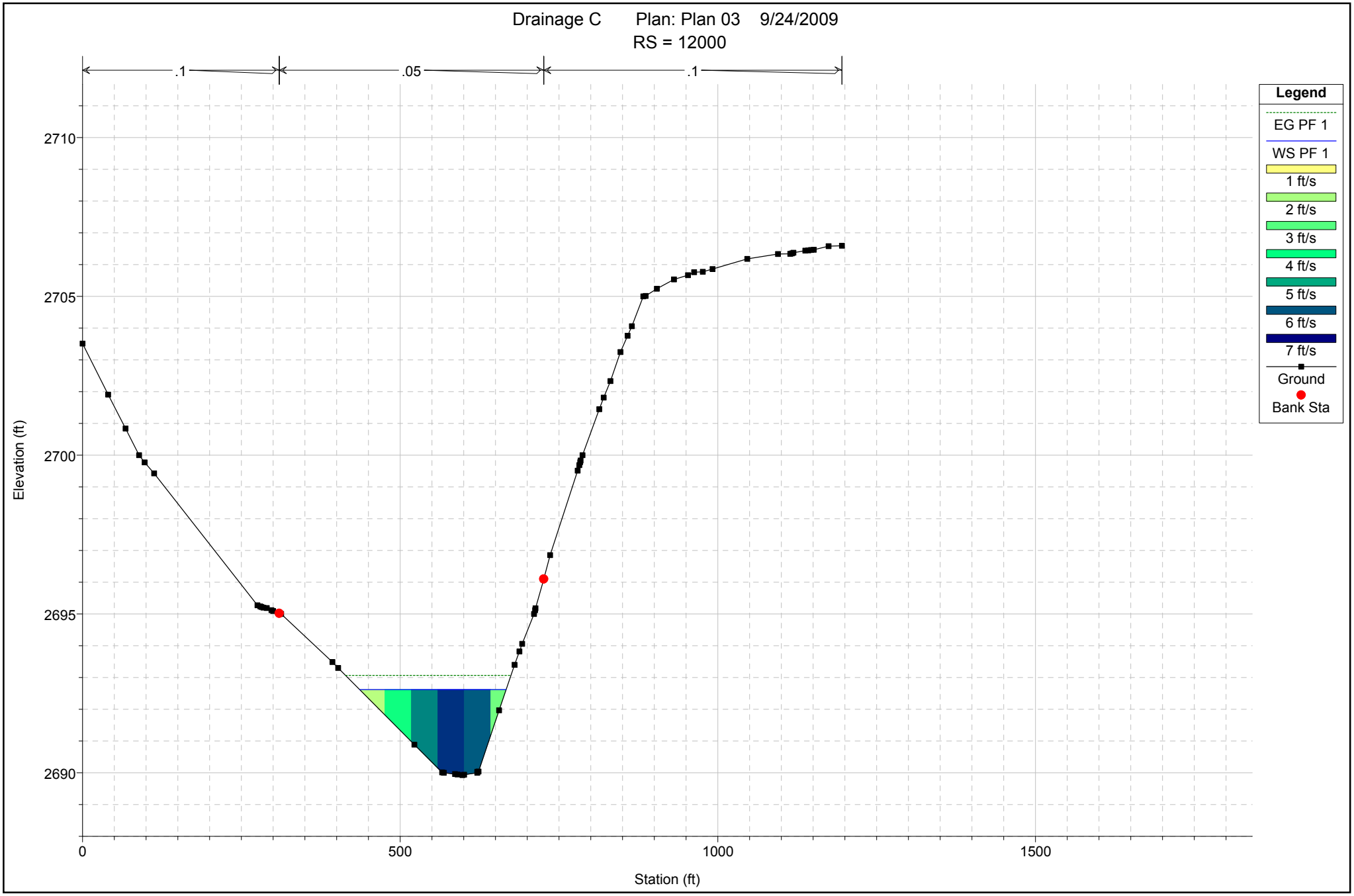
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



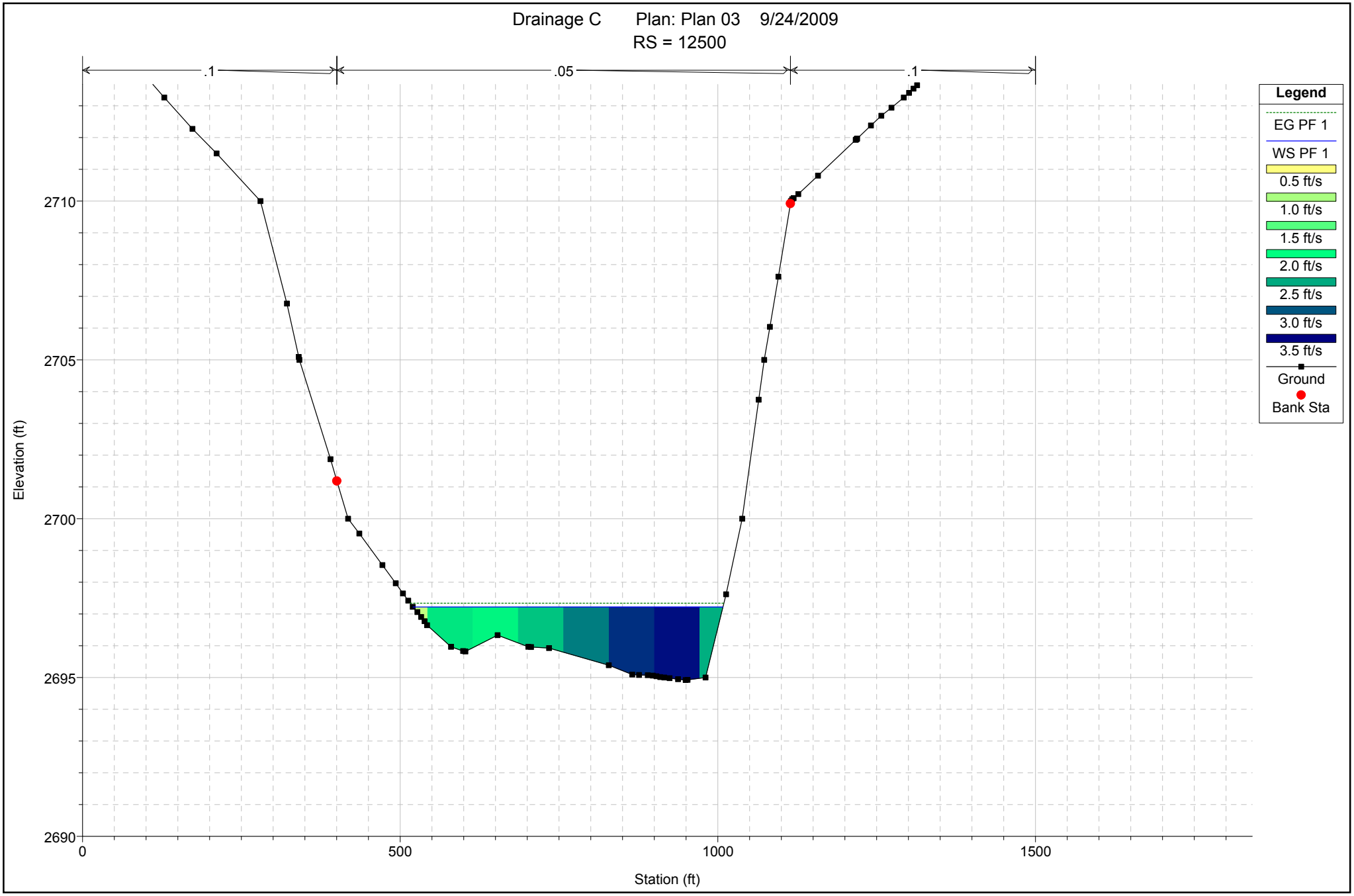
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



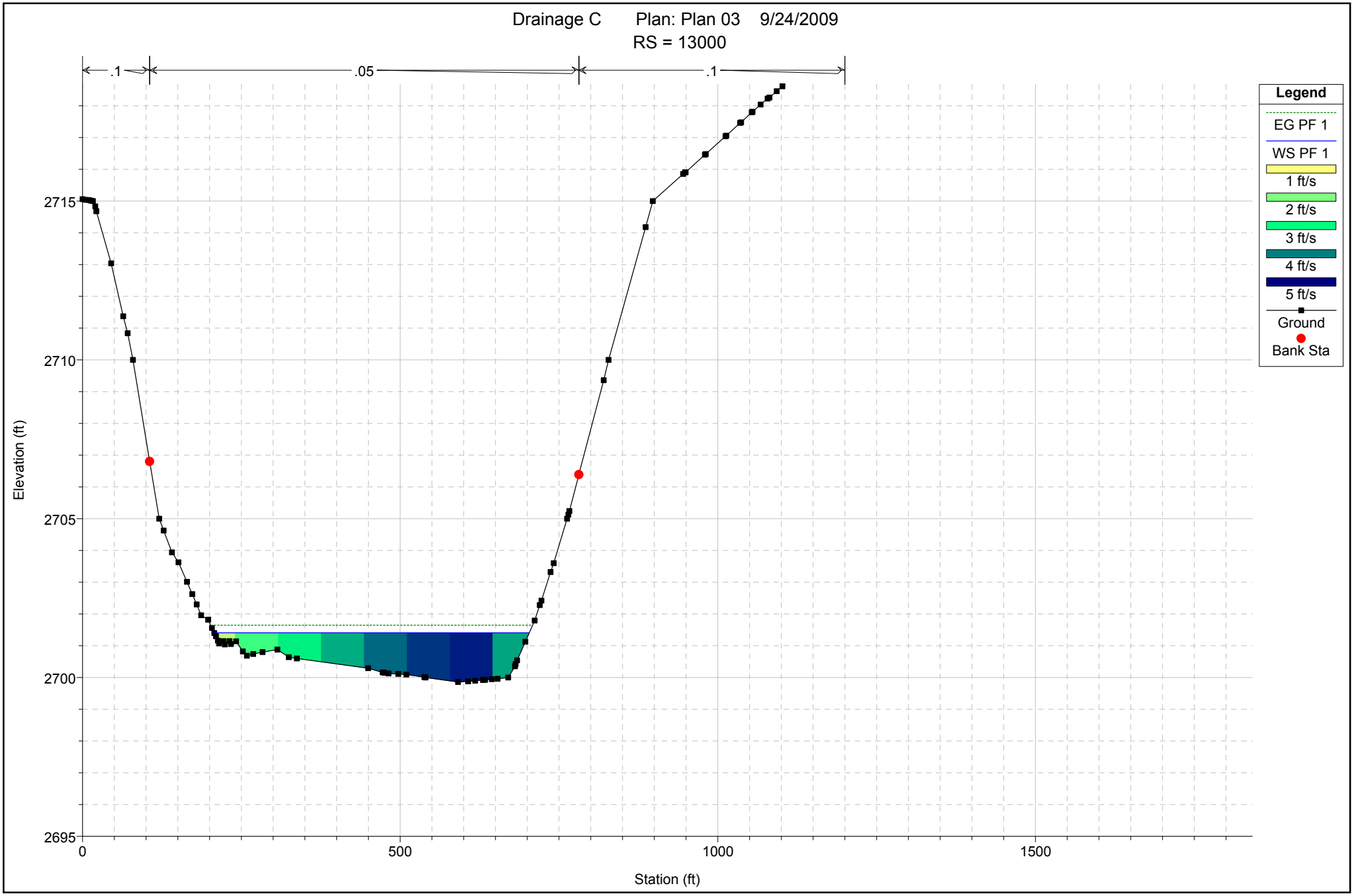
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



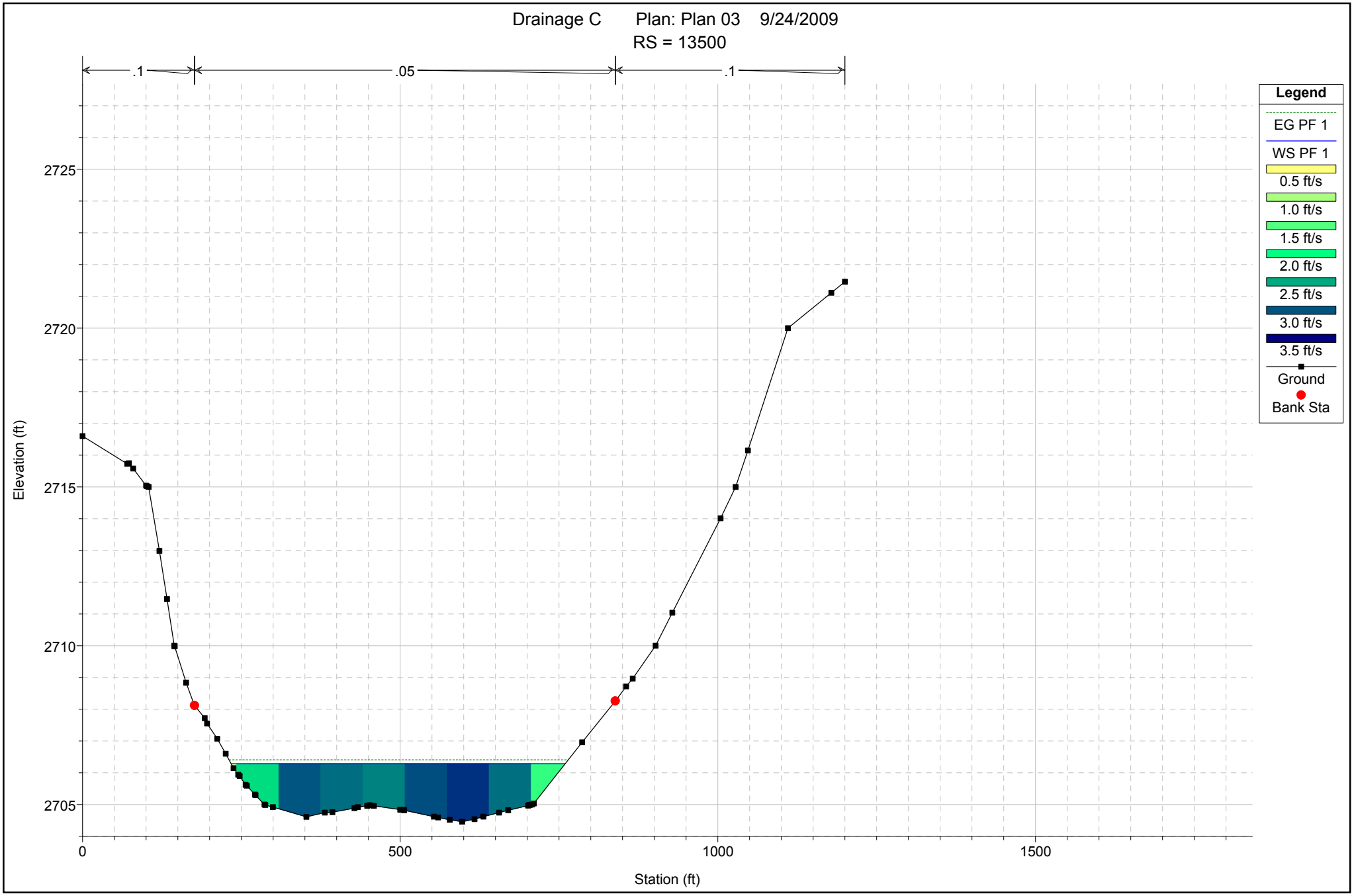
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



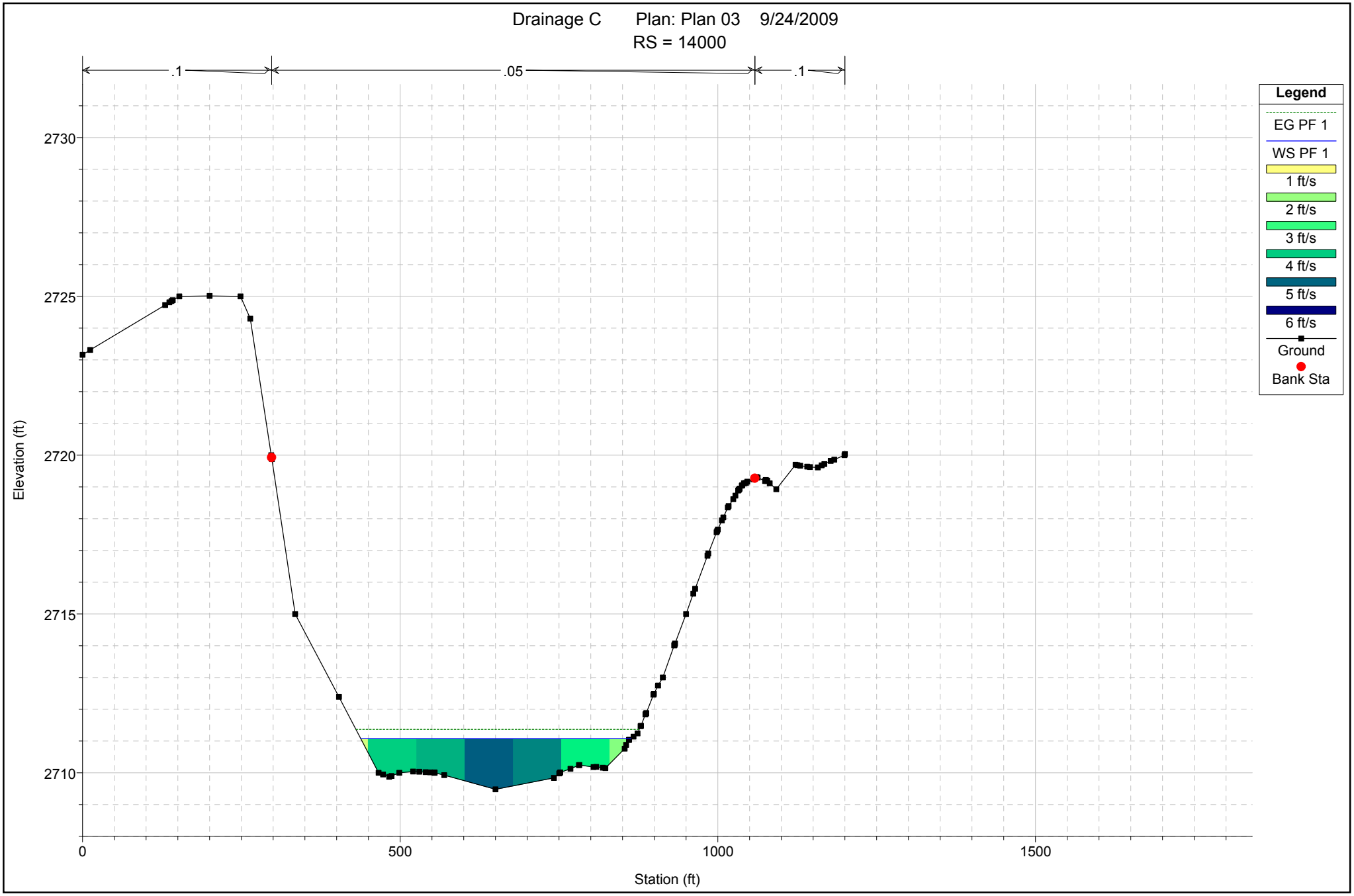
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



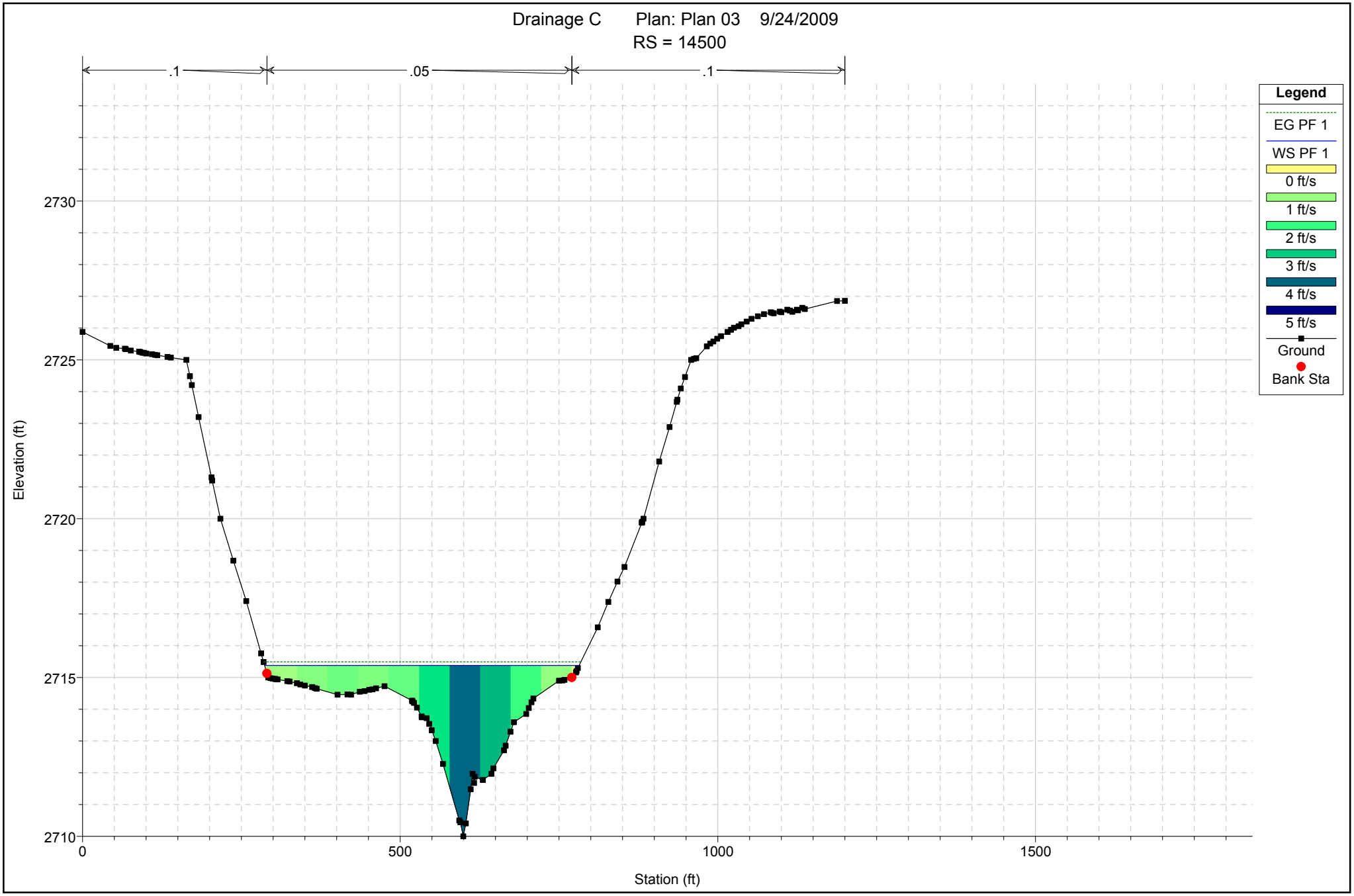
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



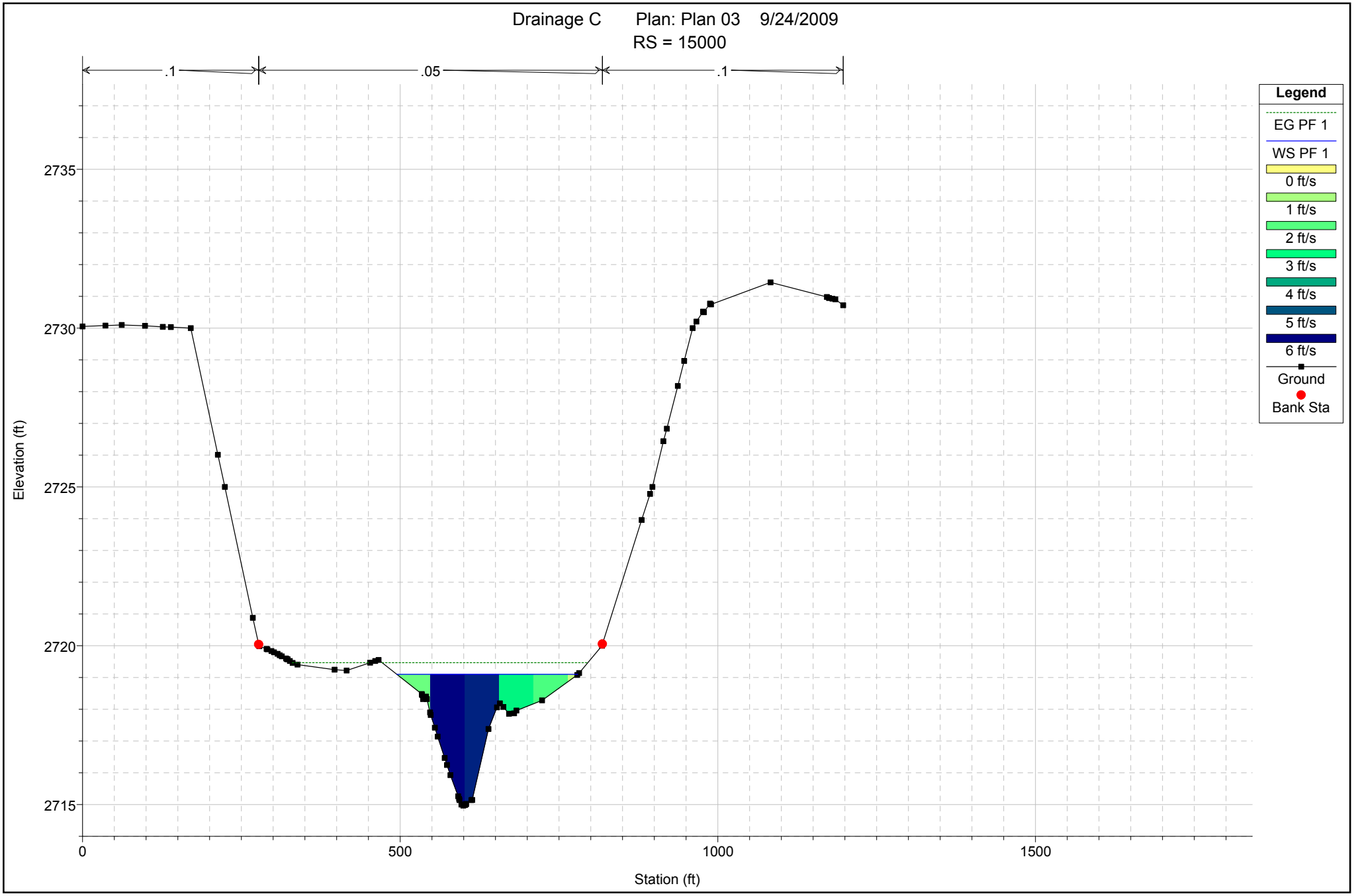
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



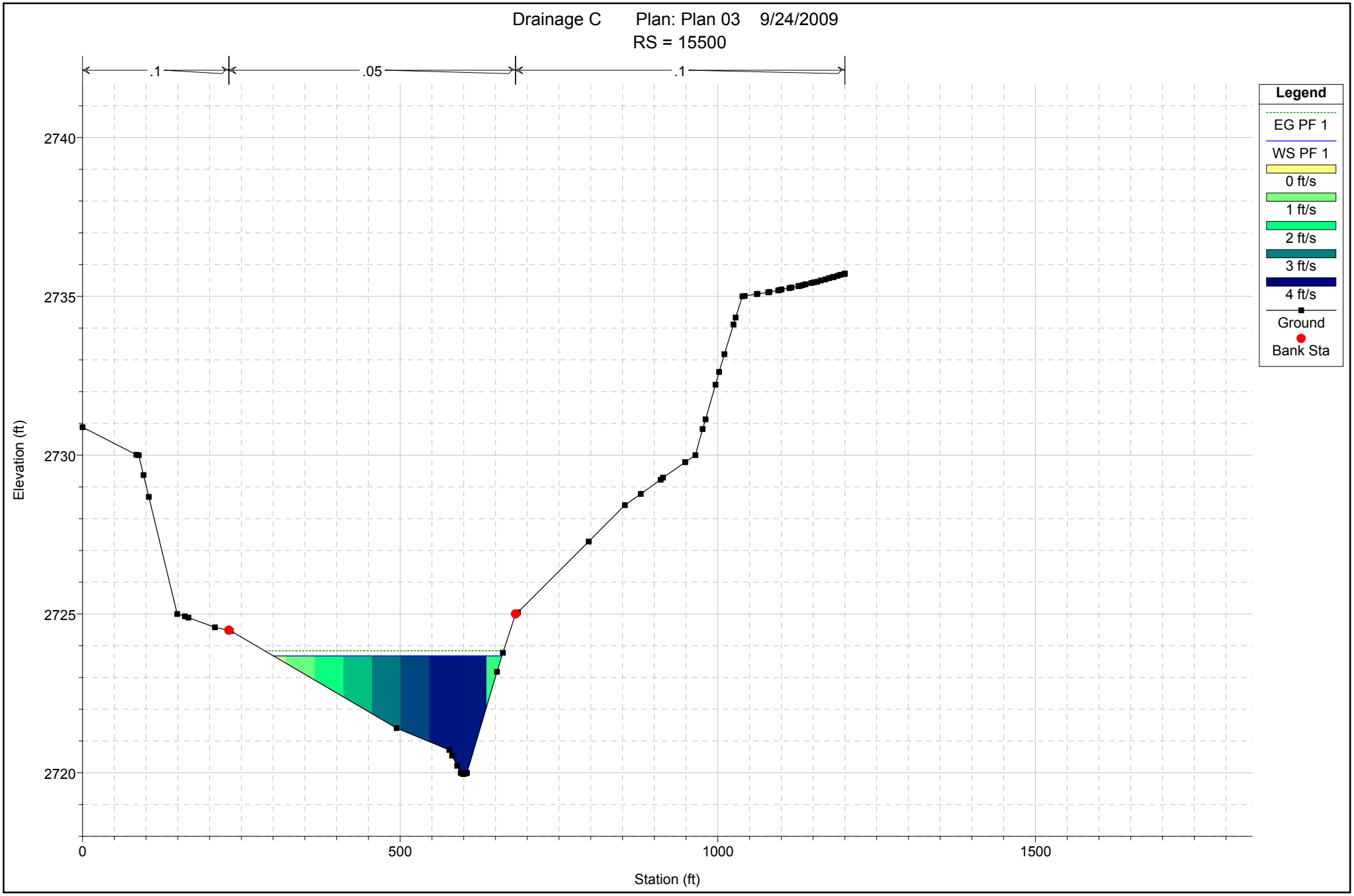
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



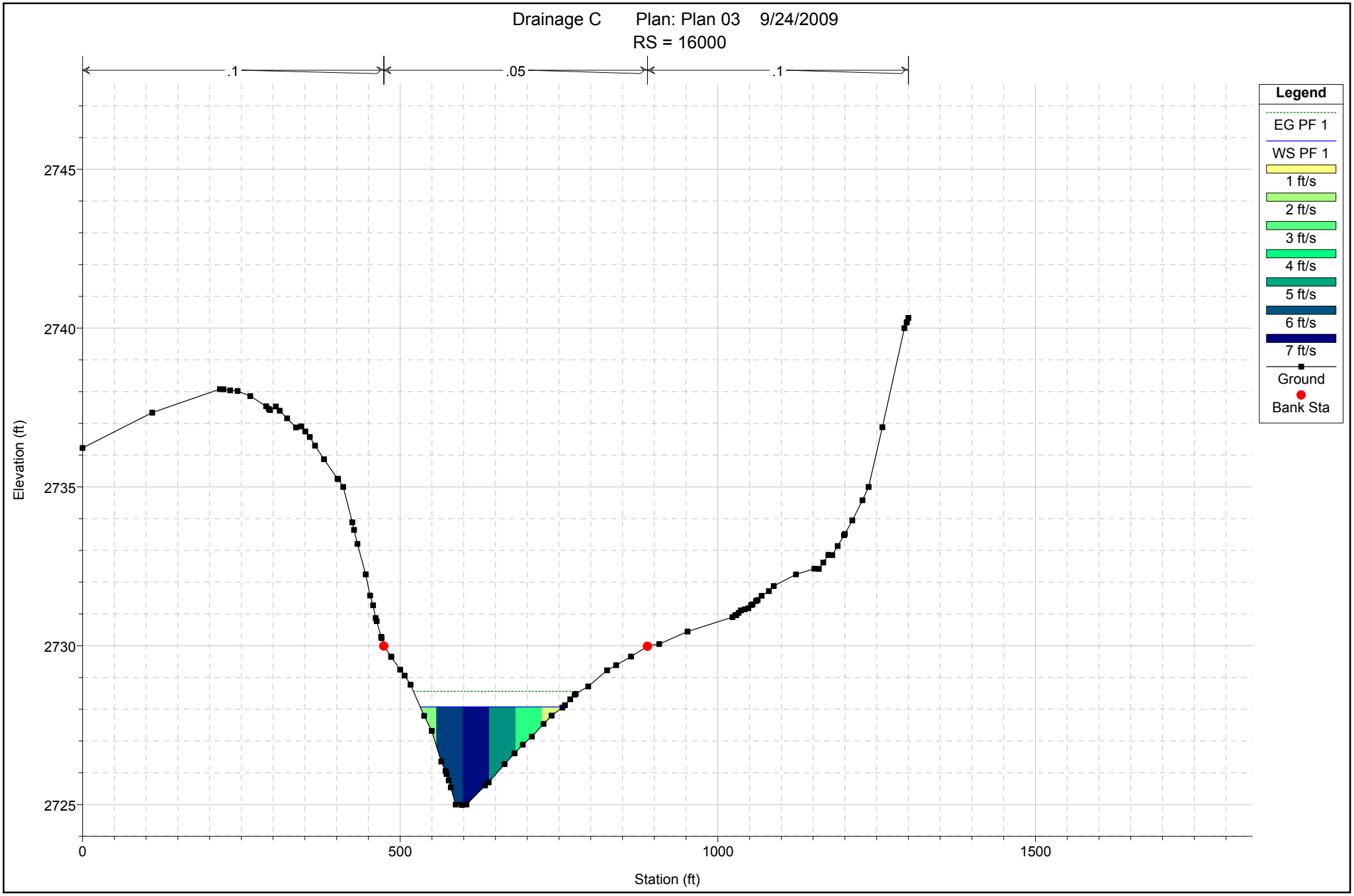
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



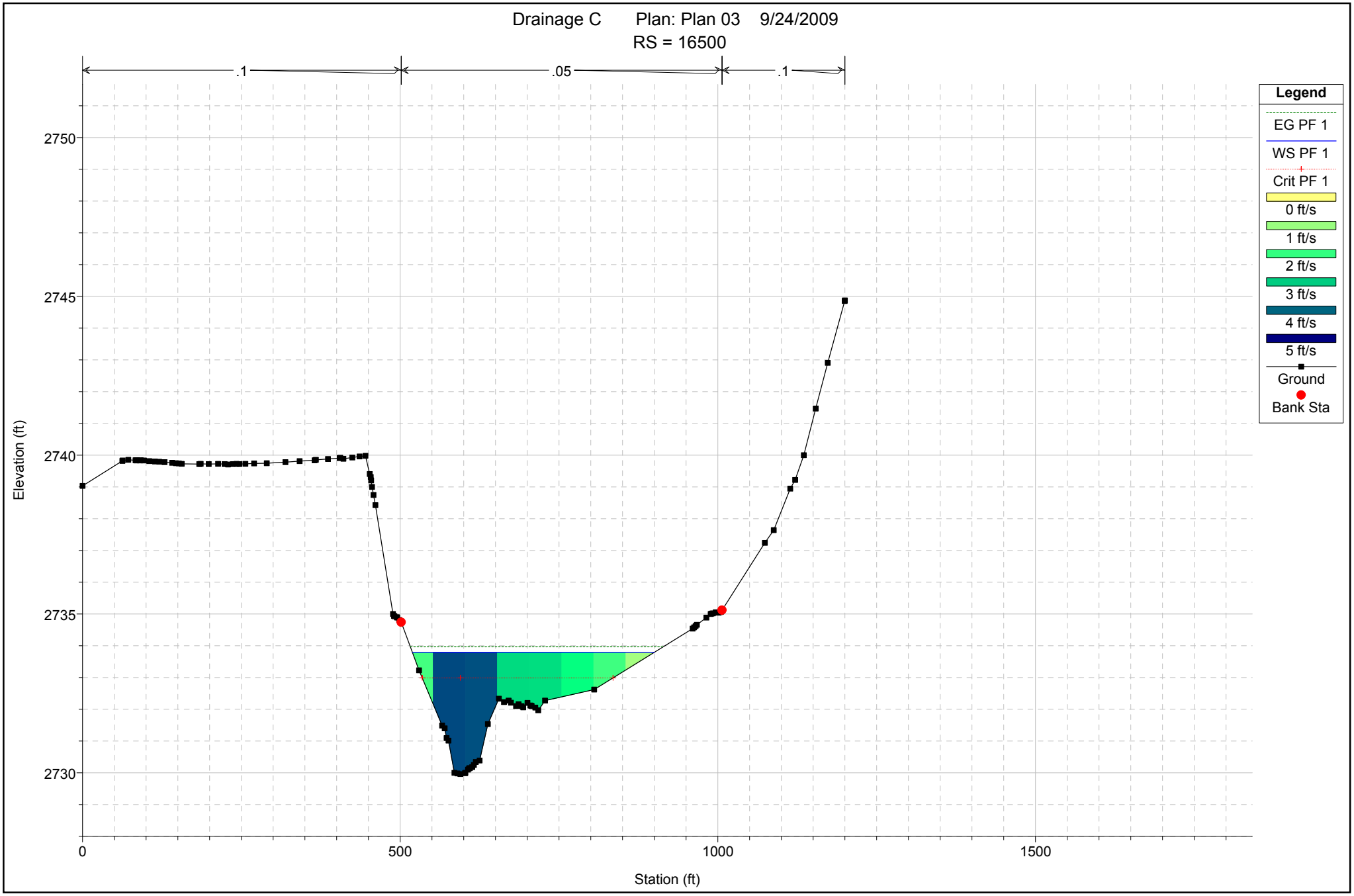
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



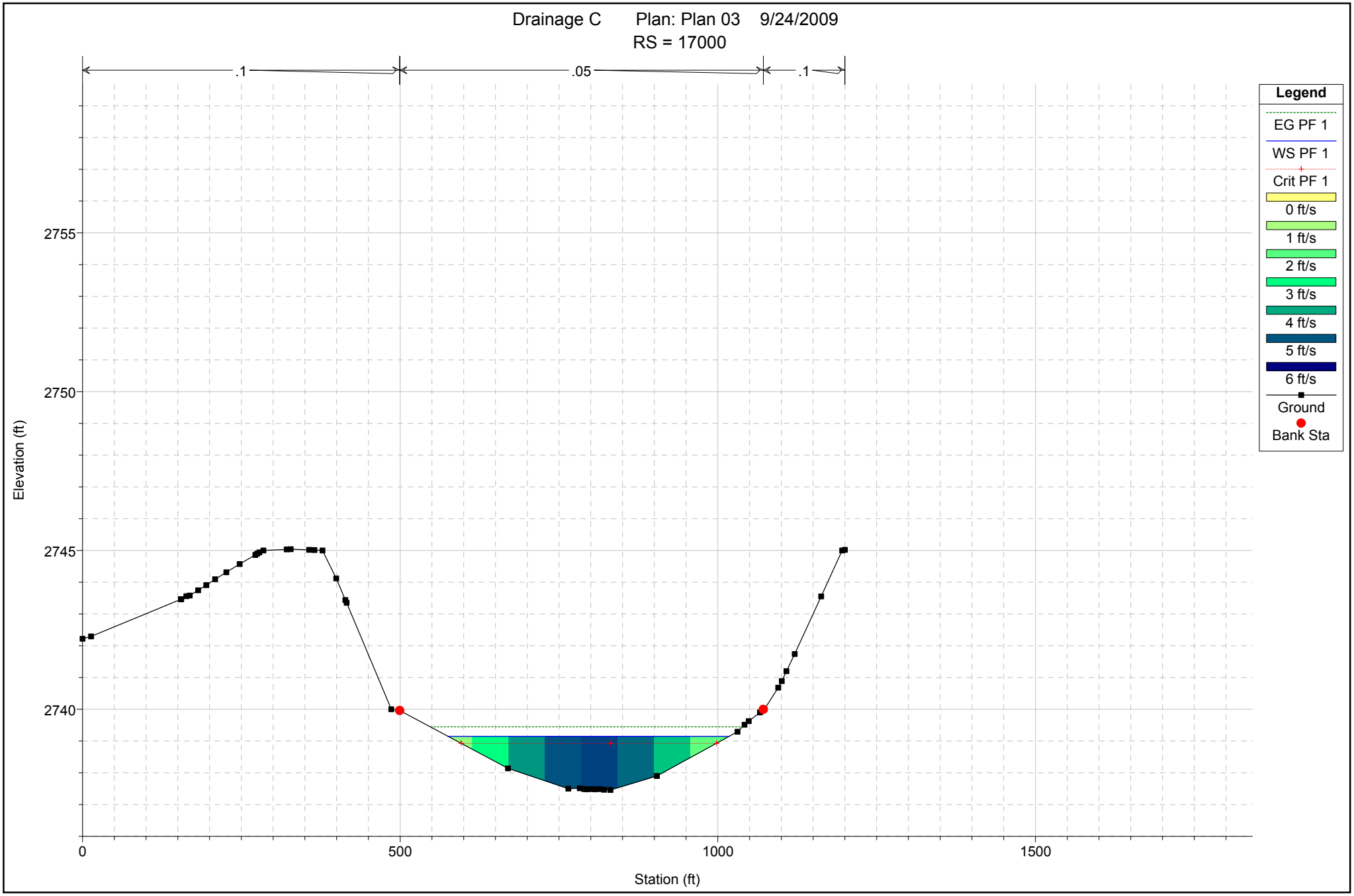
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



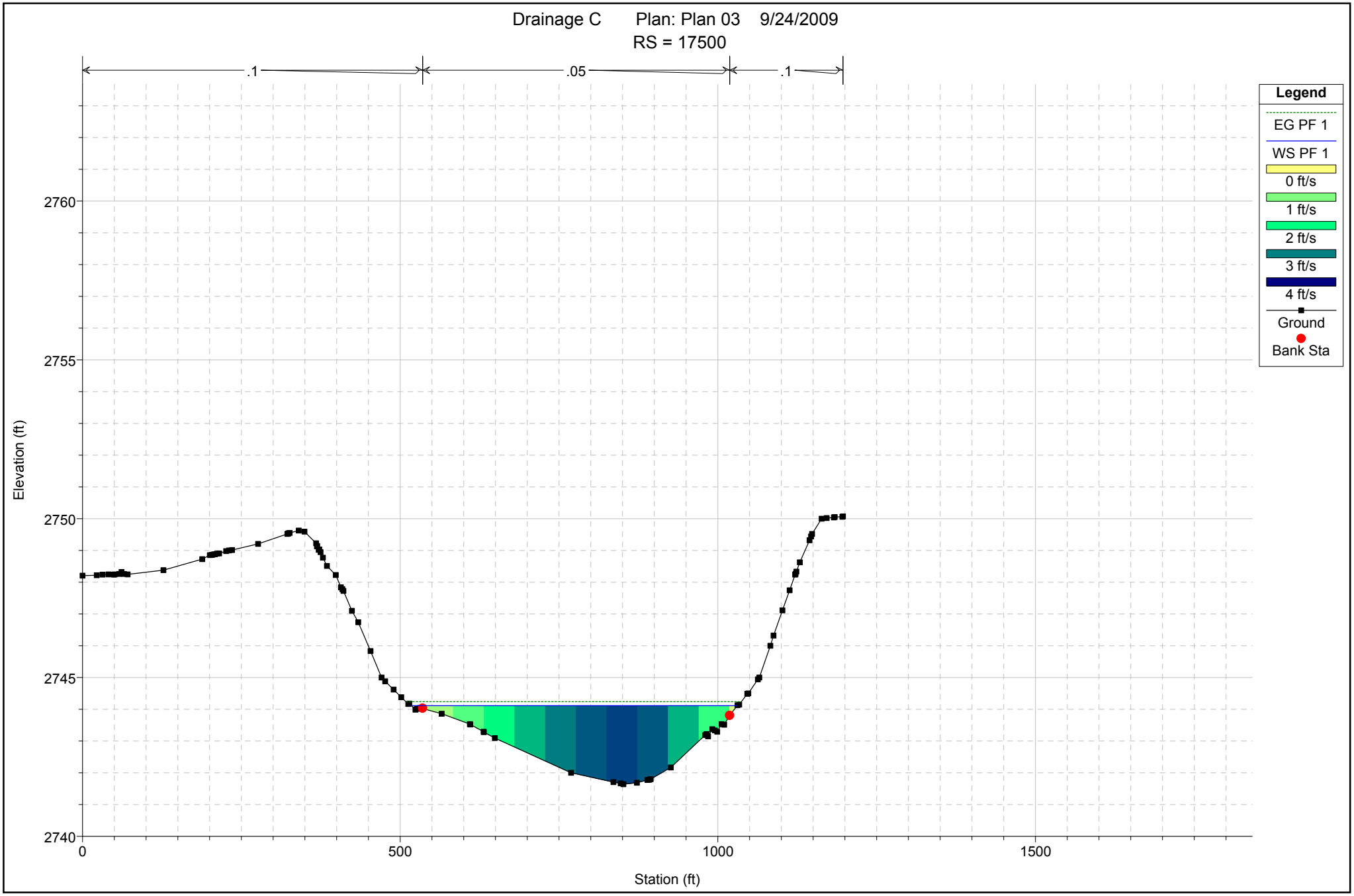
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



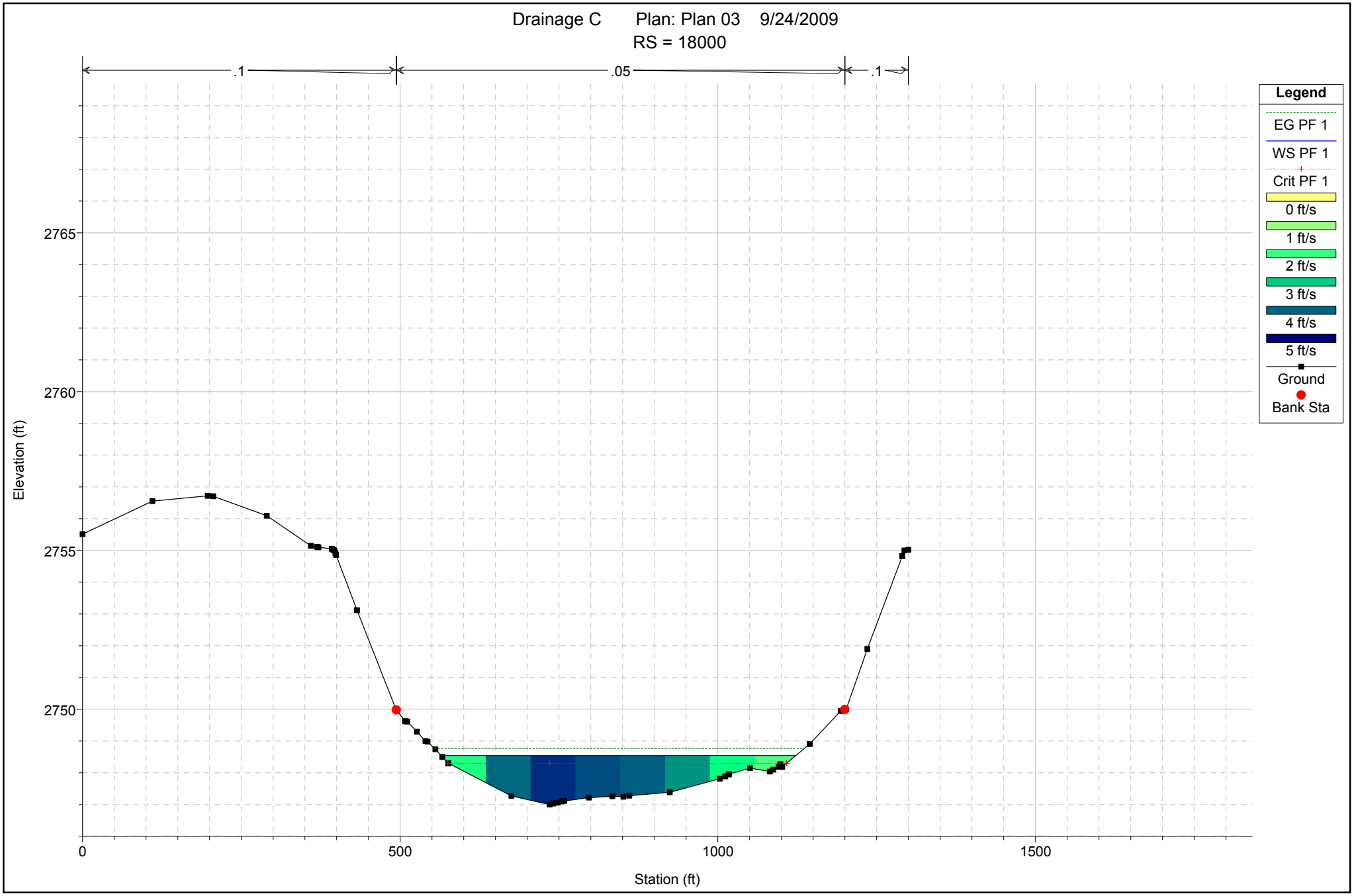
1 in Horiz. = 200 ft 1 in Vert. = 4 ft



1 in Horiz. = 200 ft 1 in Vert. = 4 ft



1 in Horiz. = 200 ft 1 in Vert. = 4 ft



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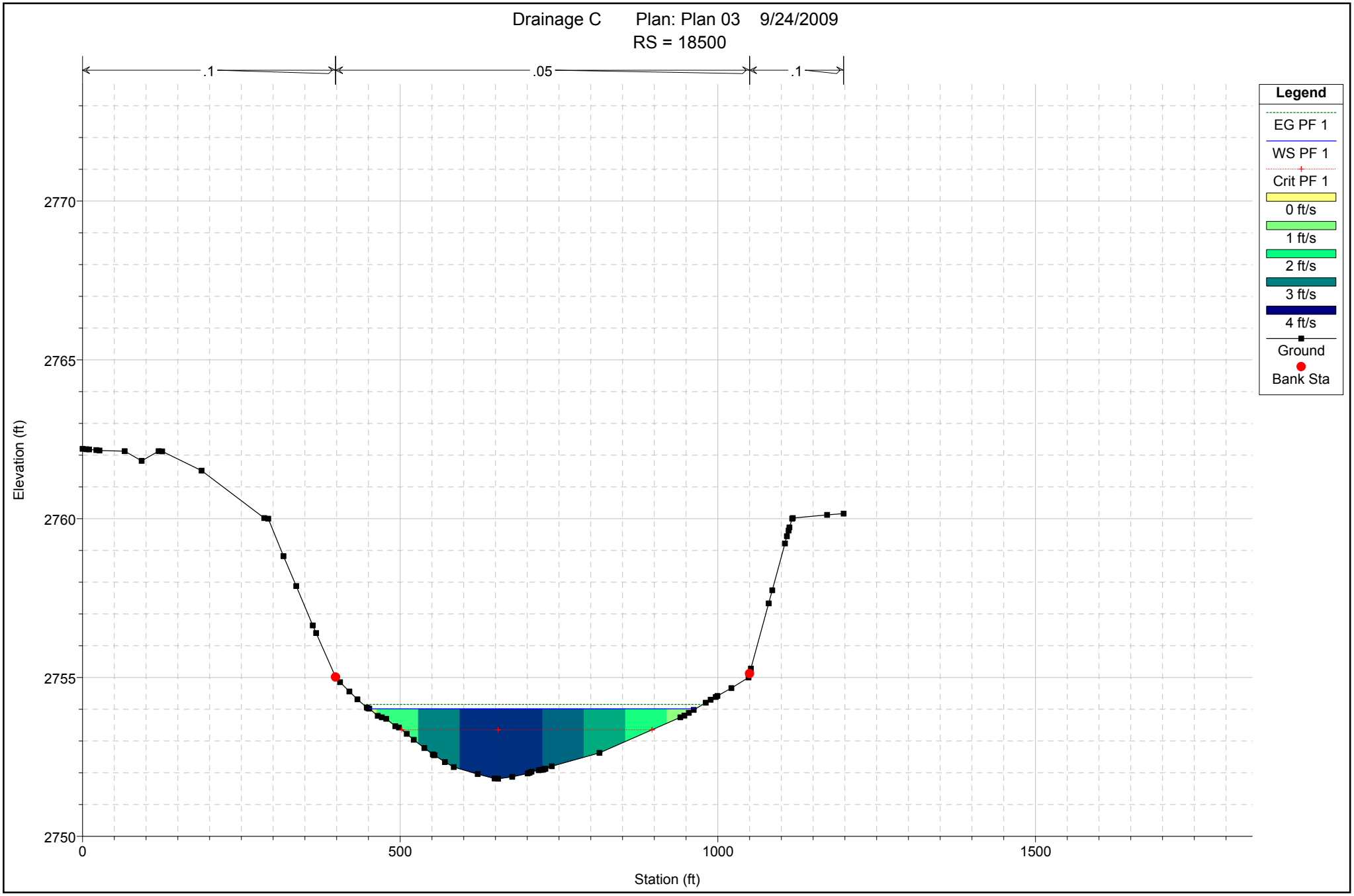
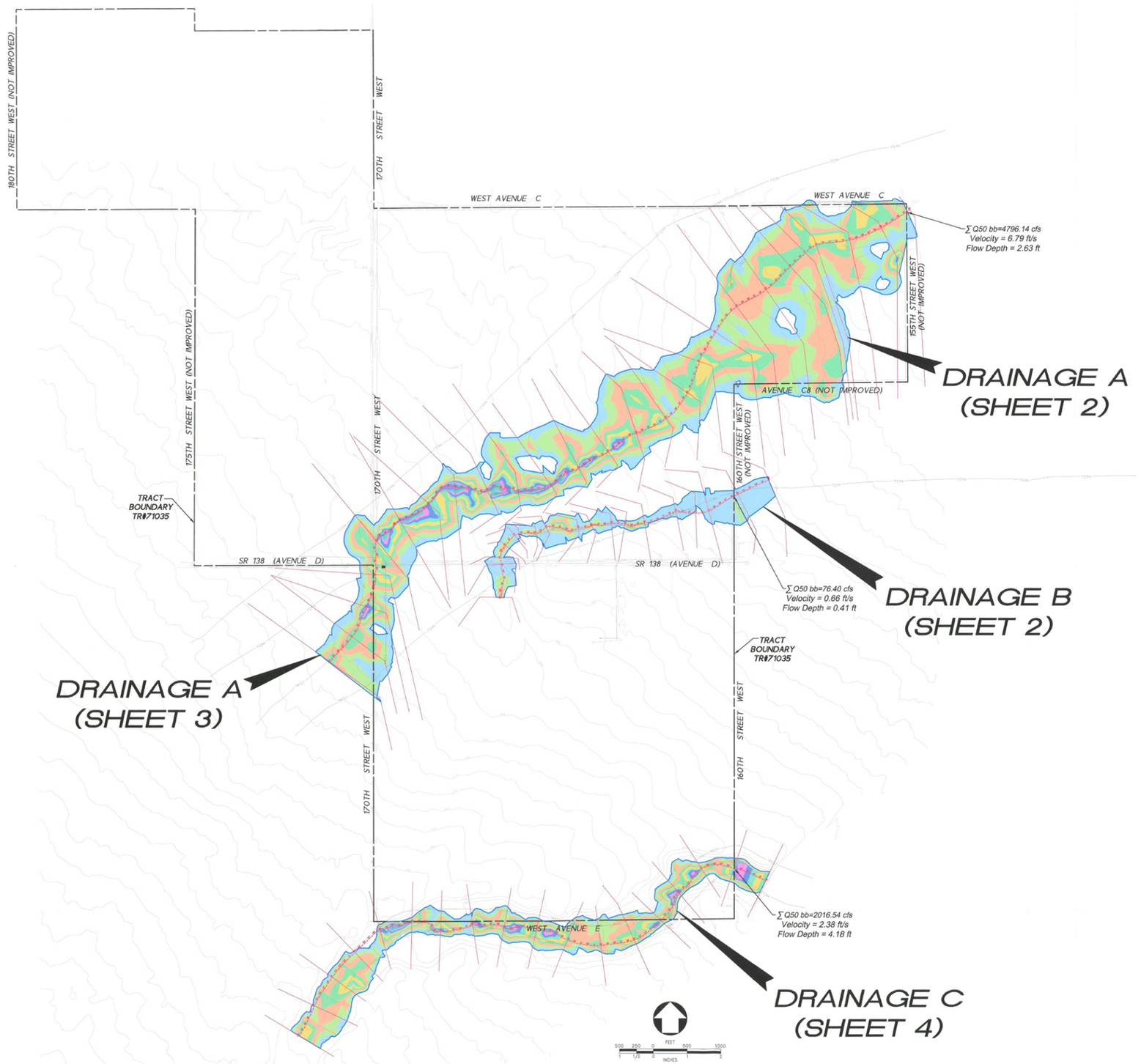
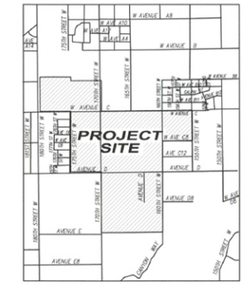


1 in Horiz. = 200 ft 1 in Vert. = 4 ft

APPENDIX I:

FLOOD PLAIN EXHIBITS





VICINITY MAP
NOT TO SCALE

LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFG LINE
- FLOOD PLAIN LIMITS

ELEVATIONS TABLE

NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-6.500	-6.000	
2	-6.000	-5.500	
3	-5.500	-5.000	
4	-5.000	-4.500	
5	-4.500	-4.000	
6	-4.000	-3.500	
7	-3.500	-3.000	
8	-3.000	-2.500	
9	-2.500	-2.000	
10	-2.000	-1.500	
11	-1.500	-1.000	
12	-1.000	-0.500	
13	-0.500	0.000	

NOTE:

1. WHEN SOLAR PANELS ARE INSTALLED WITHIN AREAS WHERE THE FLOW DEPTHS AND VELOCITIES EXCEED 18 INCHES AND 3 FT/SEC, RESPECTIVELY, WE RECOMMEND THAT THE PANEL SUPPORT SYSTEM IS ANALYZED TO CONFIRM THAT IT CAN WITHSTAND THE FLOW DEPTH AND FLOW VELOCITIES INDICATED IN THIS REPORT AND WILL NOT BE SUBJECT TO DAMAGE FROM THOSE FLOW CONDITIONS.

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: [signature] RCE NO. 70491 DATE 11/27/10
CHECKED BY: [signature] DATE 11/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Depth sht 1

REGISTERED PROFESSIONAL ENGINEER — ERIK WINATA — No. C-67285 — Exp. 09/30/10 — CIVIL — STATE OF CALIFORNIA

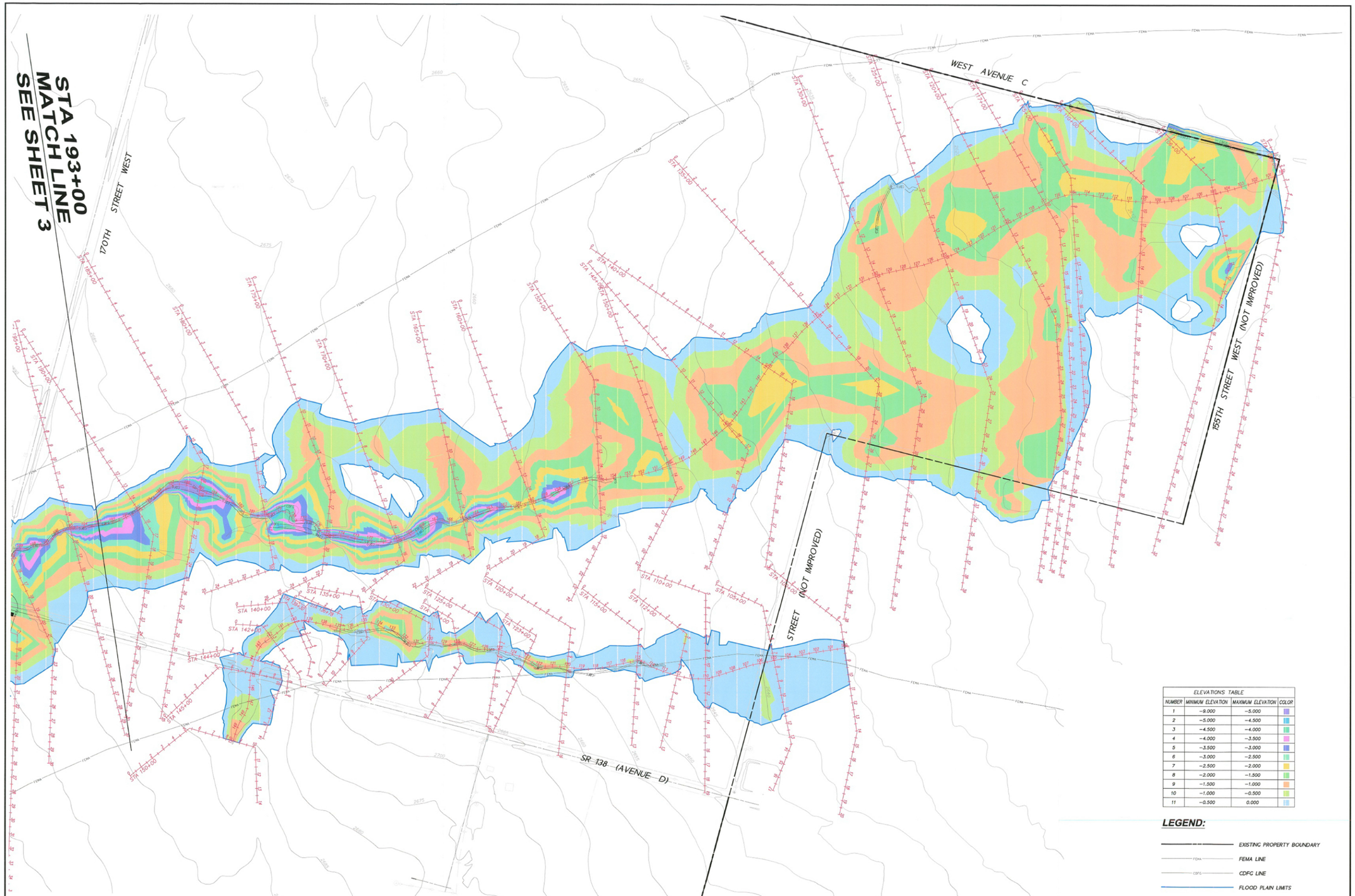
PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
[signature] 12/14/09
ERIK WINATA — R.C.E. NO. C 67285 — DATE

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD DEPTH EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 1 OF 4



ELEVATIONS TABLE			
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-9.000	-5.000	
2	-5.000	-4.500	
3	-4.500	-4.000	
4	-4.000	-3.500	
5	-3.500	-3.000	
6	-3.000	-2.500	
7	-2.500	-2.000	
8	-2.000	-1.500	
9	-1.500	-1.000	
10	-1.000	-0.500	
11	-0.500	0.000	

LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFG LINE
- FLOOD PLAIN LIMITS

FEET
200 100 0 200 400
1 1/2 0 1 2
INCHES

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: C. Nagel RCE NO: 70441 DATE: 1/27/10
CHECKED BY: DATE: 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Depth sht 2

DRAINAGE A & B

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

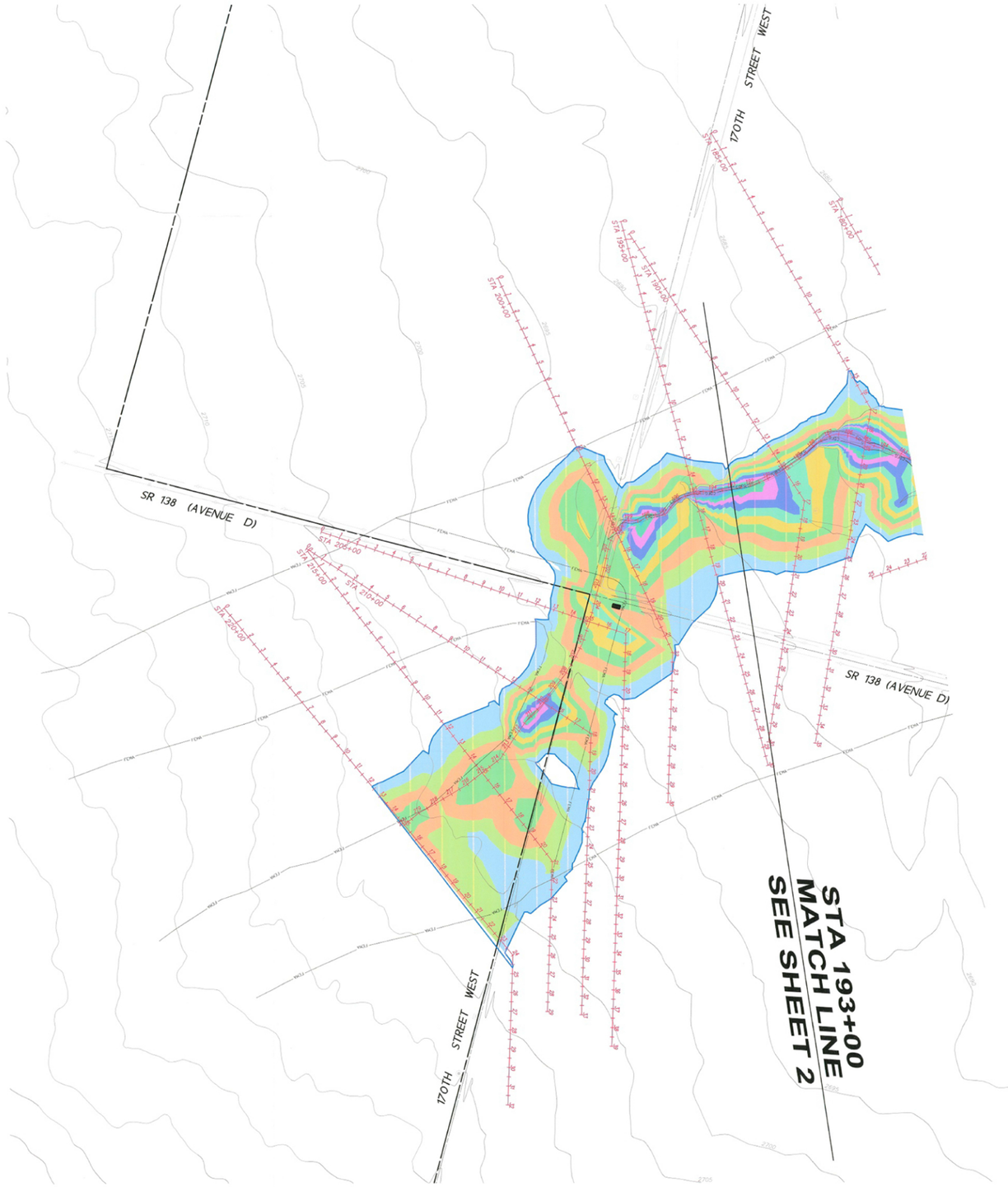
PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www. psomas.com
ERIK WINATA R.C.E. NO: C 67285 DATE 12/14/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD DEPTH EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 2 OF 4



ELEVATIONS TABLE			
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-9.000	-5.000	
2	-5.000	-4.500	
3	-4.500	-4.000	
4	-4.000	-3.500	
5	-3.500	-3.000	
6	-3.000	-2.500	
7	-2.500	-2.000	
8	-2.000	-1.500	
9	-1.500	-1.000	
10	-1.000	-0.500	
11	-0.500	0.000	

LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFG LINE
- FLOOD PLAIN LIMITS

DRAINAGE A

FEET 200 100 0 200 400
INCHES 1 1/2 0 1 2

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: [signature] RCE NO: 70491 DATE: 1/27/10
CHECKED BY: _____ DATE: 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Depth sht 3

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA R.C.E. NO. C 67285 DATE 12/14/09

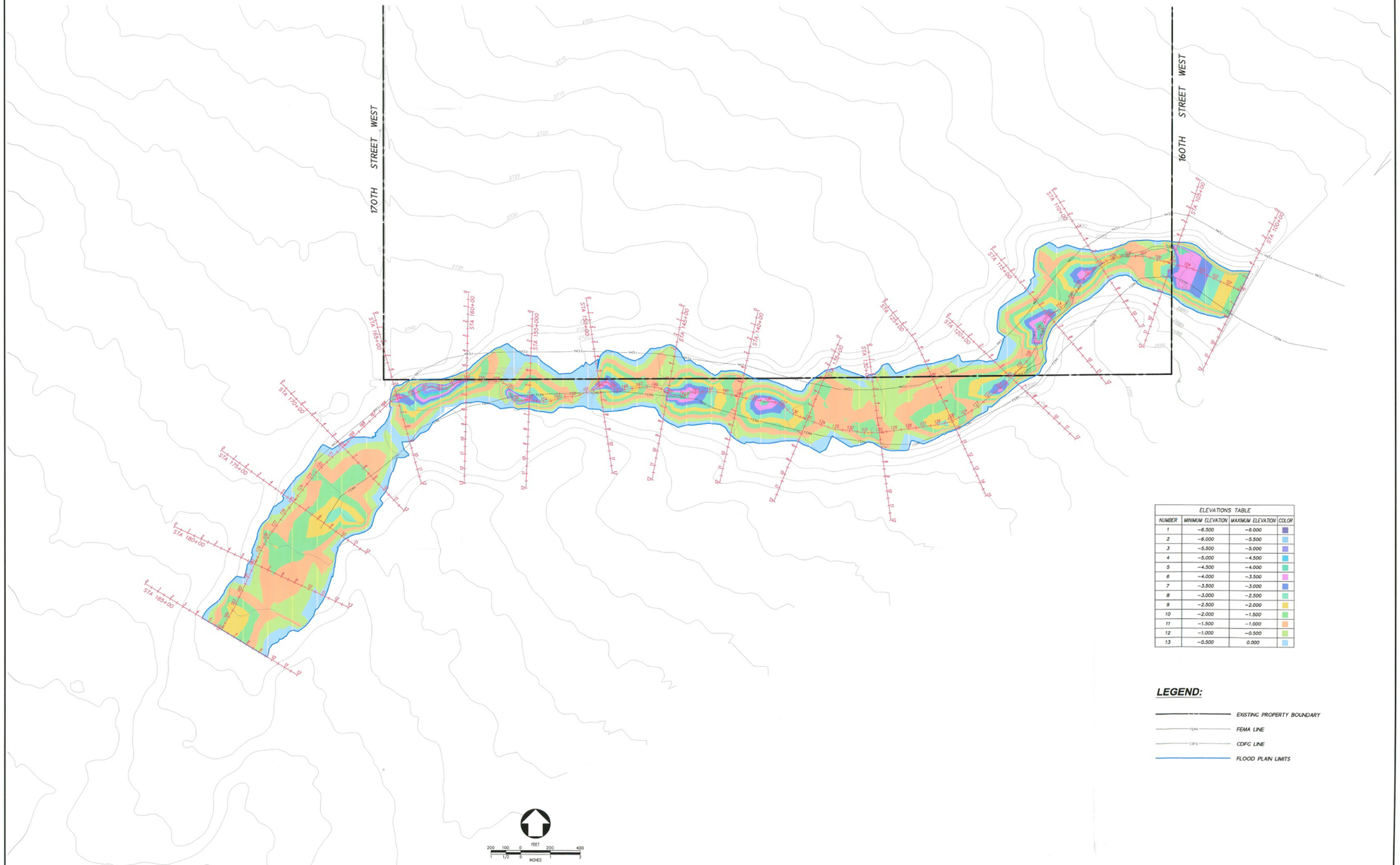
REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD DEPTH EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 3 OF 4



ELEVATIONS TABLE			
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-6.500	-6.000	
2	-6.000	-5.500	
3	-5.500	-5.000	
4	-5.000	-4.500	
5	-4.500	-4.000	
6	-4.000	-3.500	
7	-3.500	-3.000	
8	-3.000	-2.500	
9	-2.500	-2.000	
10	-2.000	-1.500	
11	-1.500	-1.000	
12	-1.000	-0.500	
13	-0.500	0.000	

LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA — FEMA LINE
- CDFG — CDFG LINE
- FLOOD PLAIN LIMITS

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 70791 DATE 12/21/10
CHECKED BY: _____ DATE 12/21/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Depth Sht 4

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
28480 Avenue Stanford, Suite 200
Santa Clarita, Ca 91355
(661) 219-6000 (661) 775-2718 (FAX)
www.psomas.com
ERIK WINATA R.C.E. NO. C 67285 DATE 12/19/09

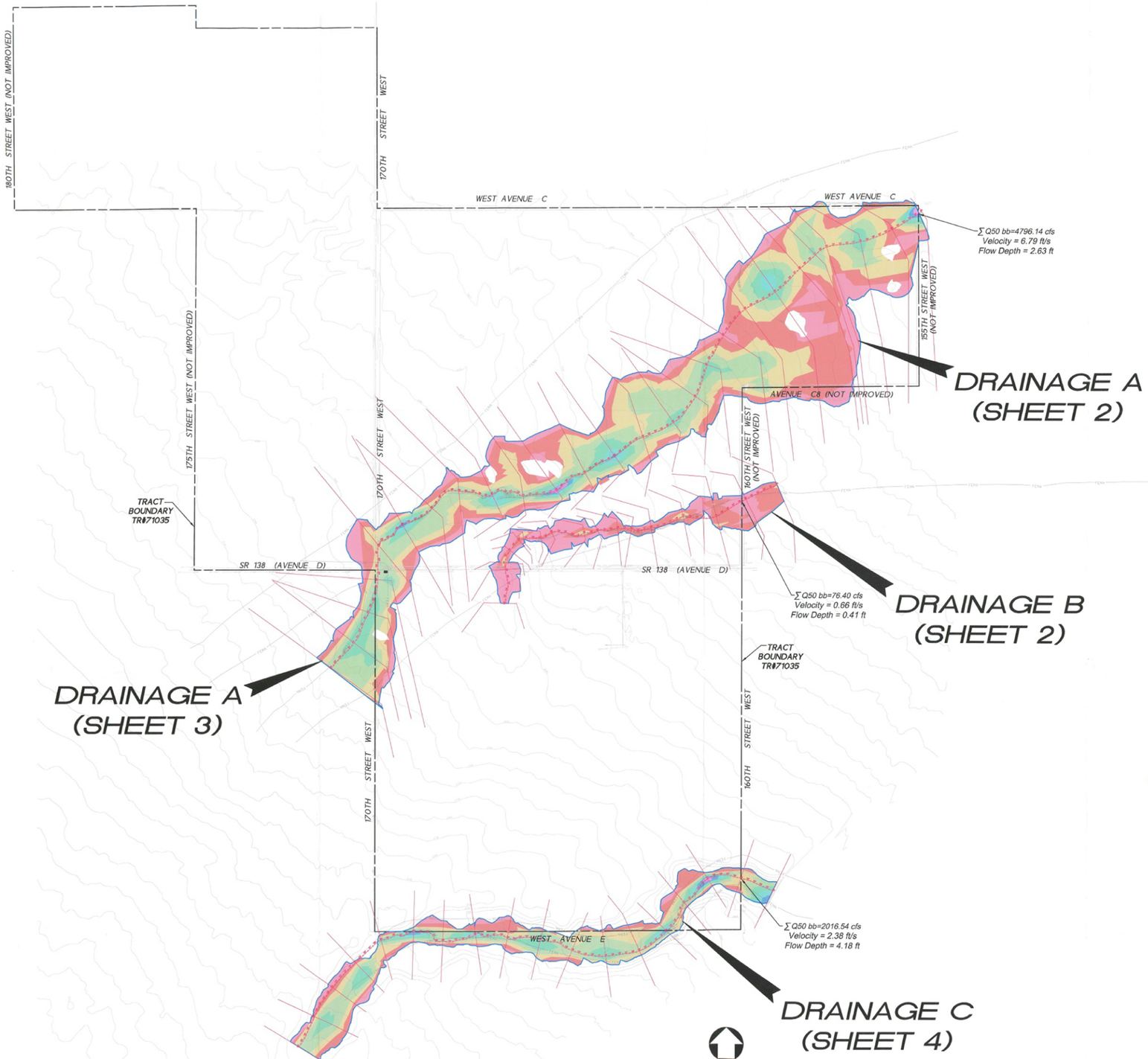
DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

DRAINAGE C

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD DEPTH EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 4 OF 4



VICINITY MAP
NOT TO SCALE

LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFC LINE
- FLOOD PLAIN LIMITS
- DEVELOPMENT SETBACK (100FT FROM CDFC LINES)
- 100FT WIDE EASEMENT

Velocity Range			
Number	Minimum Velocity (fps)	Maximum Velocity (fps)	Color
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5	4.000	5.000	
6	5.000	6.000	
7	6.000	7.000	
8	7.000	8.000	
9	8.000	9.000	

NOTE:

1. WHEN SOLAR PANELS ARE INSTALLED WITHIN AREAS WHERE THE FLOW DEPTHS AND VELOCITIES EXCEED 18 INCHES AND 3 FT/SEC, RESPECTIVELY, WE RECOMMEND THAT THE PANEL SUPPORT SYSTEM IS ANALYZED TO CONFIRM THAT IT CAN WITHSTAND THE FLOW DEPTH AND FLOW VELOCITIES INDICATED IN THIS REPORT AND WILL NOT BE SUBJECT TO DAMAGE FROM THOSE FLOW CONDITIONS.

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: RCE NO. 70991 DATE 1/20/10
CHECKED BY: DATE 1/27/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Velocity Sht 1

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PSOMAS
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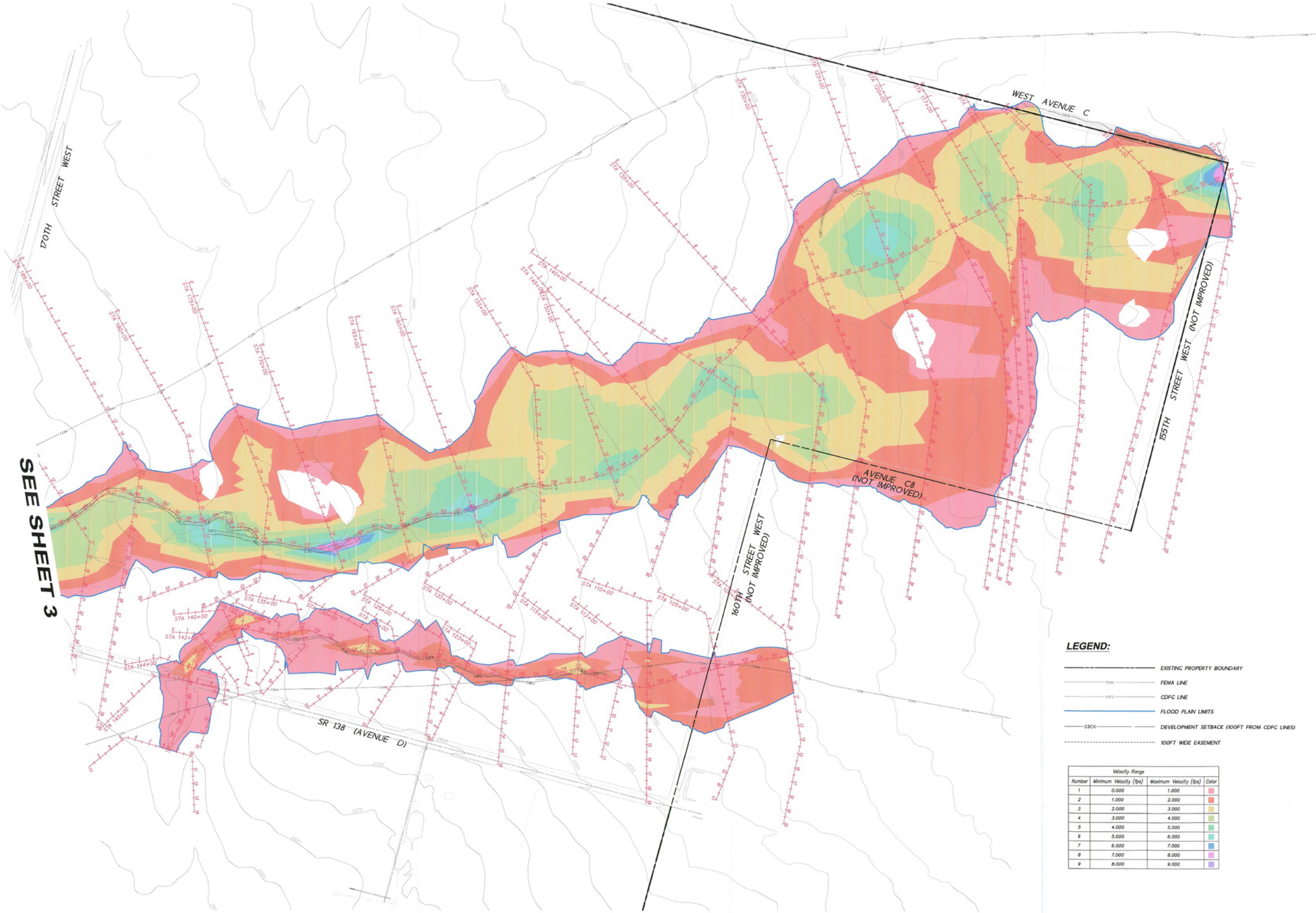
ERIK WINATA R.C.E. NO. C 67285 DATE 12/14/09

DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
AV SOLAR RANCH 1, LLC
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD VELOCITY EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 1 OF 4



LEGEND:

EXISTING PROPERTY BOUNDARY
FEMA LINE
CDFC LINE
FLOOD PLAIN LIMITS
DEVELOPMENT SETBACK (100FT FROM CDFC LINES)
100FT WIDE EASEMENT

Velocity Range			
Number	Minimum Velocity (fps)	Maximum Velocity (fps)	Color
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6	5.000	6.000	
7	6.000	7.000	
8	7.000	8.000	
9	8.000	9.000	

DRAINAGE A & B

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
APPROVED FOR AREA AND Q ONLY
APPROVED BY: C. Dhal RCE NO. 70441 DATE 1/12/10
CHECKED BY: DATE 1/12/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Velocity sht 2

REGISTERED PROFESSIONAL ENGINEER ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

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CHECKED: EW

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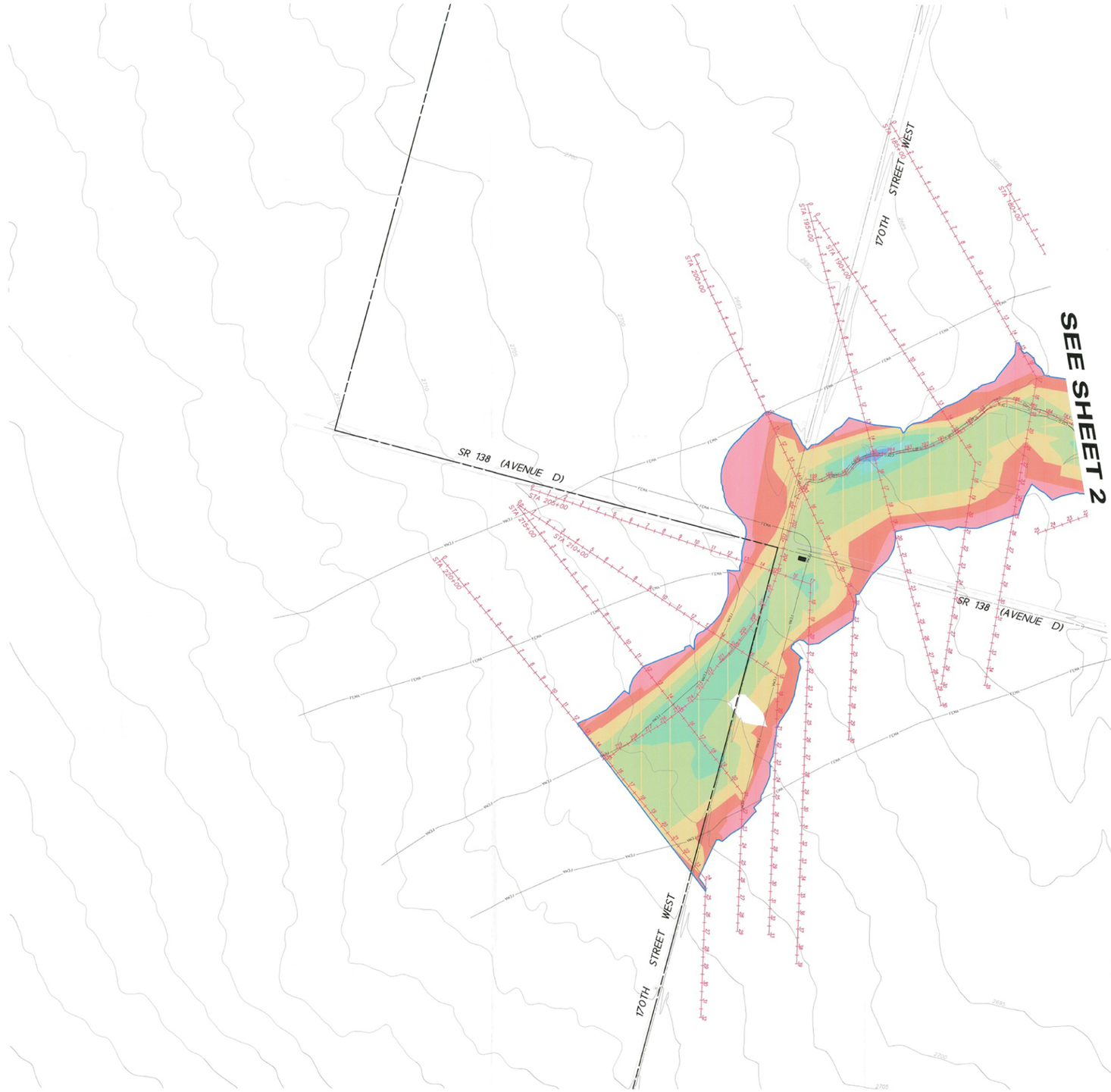
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD VELOCITY EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 2 OF 4



LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFG LINE
- FLOOD PLAIN LIMITS
- SBCK — DEVELOPMENT SETBACK (100FT FROM CDFG LINES)
- 100FT WIDE EASEMENT

Velocity Range			
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8	7.000	8.000	
9	8.000	9.000	

FEET 200 100 0 200 400
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APPROVED BY: [signature] RCE NO. 20741 DATE 1/27/10
CHECKED BY: DATE 1/27/10
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LAND DEVELOPMENT DIVISION

Velocity sht 3

DRAINAGE A

REGISTERED PROFESSIONAL ENGINEER No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
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DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
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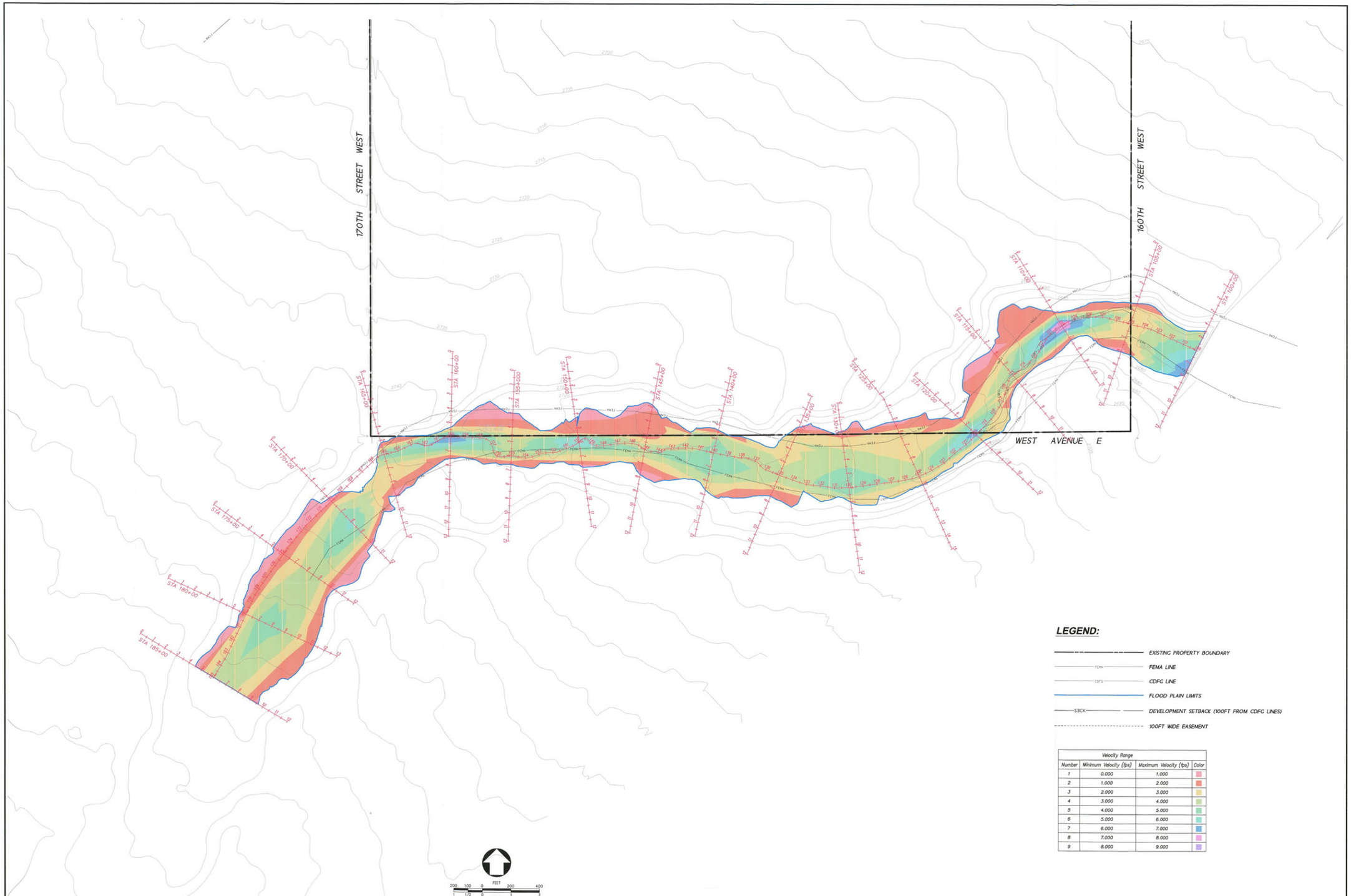
353 Sacramento Street, Suite 2100
San Francisco, CA 94111

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD VELOCITY EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 3 OF 4



LEGEND:

- EXISTING PROPERTY BOUNDARY
- FEMA LINE
- CDFG LINE
- FLOOD PLAIN LIMITS
- SBCK — DEVELOPMENT SETBACK (100FT FROM CDFG LINES)
- 100FT WIDE EASEMENT

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6	5.000	6.000	
7	6.000	7.000	
8	7.000	8.000	
9	8.000	9.000	

DRAINAGE CONCEPT/ HYDROLOGY STUDY/ LID/SUSMP
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APPROVED BY: _____ RCE NO. 50444 DATE 12/21/10
CHECKED BY: _____ DATE 12/21/10
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

Velocity Sht 4

ERIK WINATA No. C-67285 Exp. 09/30/10 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
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DESIGNED: EW
DRAFTED: TC
CHECKED: EW

OWNER/DEVELOPER/APPLICANT:
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353 Sacramento Street, Suite 2100
San Francisco, CA 94111

DRAINAGE C

AV SOLAR RANCH ONE TR # 71035
ANTELOPE VALLEY, CALIFORNIA
FLOOD VELOCITY EXHIBIT
50-YR BURNED/BULKED STORM
EXISTING CONDITION
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. 1NEX010100
SHEET 4 OF 4

APPENDIX J:

PRELIMINARY HYDROLOGY & HYDRAULICS REPORT FOR FLOWS UPSTREAM OF CALIFORNIA AQUEDUCT

Prepared By RBF Consulting

March 2009

NOTE:

The Preliminary Hydrology and Hydraulics Report prepared by RBF Consulting is included as a reference for the purposes of storm water flow calculations upstream of the California Aqueduct only. The hydrology and hydraulics study of storm water flows downstream of the California Aqueduct has been superceded by the Psomas Drainage Concept Report to follow the methodology and standards required by Los Angeles County.

Preliminary Hydrology and Hydraulics Report
AV Solar Ranch One
Antelope Valley, California

Date: March 2009

Prepared for:

Patch Services, LLC

Prepared by:

RBF CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 ■ FAX 916.928.1117 ■ www.RBF.com

The AV Solar Ranch One Preliminary Hydrology and Hydraulics Report was prepared under the direction of:

Harvey Oslick 3/17/09

Harvey Oslick, P.E.
RBF Consulting

REGISTERED PROFESSIONAL ENGINEER
HARVEY R. OSLICK
No. C54466
Exp 12/31/09
CIVIL
STATE OF CALIFORNIA

Table of Contents

Executive Summary

1.0 Introduction 1
1.1 Purpose 1
1.2 Site Description 1
1.3 Tributary Area Description 1

2.0 Existing Conditions Hydrology 3
2.1 Watershed Parameters 3
2.2 Watershed Areas 3
2.3 Soil Data, Land Use And Ground Cover 4
2.4 Precipitation And Effective Rainfall 4
2.5 Precipitation Patterns And Unit Hydrographs 5
2.6 Reach Routing 6
2.7 Hydrology Results 6

3.0 Hydraulic Analysis 7
3.1 Flume Analysis 7
3.2 Flows On The Project Site In Addition To Flows Across The Flumes 9
3.3 Hec-Ras Analysis 10
3.4 Evaluation Of Potential Flood Hazard 11

4.0 Project Impact On Peak Discharges 11

5.0 Potential Mitigation Measures 11

Figures

Figure 1. Vicinity map 2
Figure 2. Hydrographs just upstream of flumes 7

Photographs

Photograph 1. Typical vegetation on the project site 2
Photograph 2. Example of a flume across the aqueduct 9
Photograph 3. Incised channel on project site 10

Tables

Table 1. SCS Curve Numbers of Hydrologic Soil-Cover Complexes 4
Table 2. Drainage Area Parameters 5
Table 3. Flume dimensions and capacities 8

Exhibits

Exhibit 1: Tributary Watersheds
Exhibit 2: Flume Discharges
Exhibit 3: Floodplain Map
Exhibit 4: HEC-RAS cross Sections Primary Channel
Exhibit 5: HEC-RAS cross Sections Broad Creek
Exhibit 6: Velocities Map
Exhibit 7: 50-year Post-development Peak Flows

Appendices

Appendix A: Soil map
Appendix B: HEC-RAS Profiles and Cross Sections

Executive Summary

This report presents the results of a preliminary hydrology and hydraulic analysis that was performed to provide information for site planning for the AV Solar Ranch One project site, near Lancaster, California.

The study identifies the areas tributary to the site and provides preliminary 100-year discharges and key locations. The most significant drainage area tributary to the project site drains across the intersection of Avenue D and 170th Street from the southwest to the northeast. The significance of this drainage is evident in the incised channel that begins just east of the roadway. This channel becomes more incised and then spreads out traveling from southwest to northeast across the site. Exhibit 3 of the main report provides an illustration of the estimated limits of 100-year flooding associated with the primary flow paths and indicates the potential for additional shallow flooding.

This report also provides a preliminary discussion of measures that will need to be included in site design to manage stormwater. The purpose of stormwater management measures will be to use as much of the site for solar power generation as is feasible, while limiting erosion that could impact the proposed facilities and potentially cause offsite impacts. Measures discussed include channel improvements, berms and swales, and appropriate Best Management Practices (BMPs) for site flow and erosion control.

Key limitation of this study include assumptions made regarding the effects of the California Aqueduct on peak discharges reaching the site, and the resolution of the aerial topography with 5-foot contours of the project site. More detailed analysis of the Aqueduct and more accurate topographic data should be used as a basis for final design.

1.0 INTRODUCTION

1.1 Purpose

The purposes of this report includes presentation of the results of preliminary hydrology and hydraulic analysis used to identify 100-year flooding conditions at a proposed solar power generation facility project site in Los Angeles County, California and a preliminary assessment of the potential impact of the proposed facilities on peak discharge rates.

This report also includes a discussion of drainage facilities that could be integrated into site design to accommodate existing flows and mitigate for the potential impacts of changes that may result from changing site grades and adding impervious surfaces.

1.2 Site Description

The 3-square-mile AV Solar Ranch One project site is located along Avenue D, seven miles west of the City of Lancaster, in Los Angeles County, California. The project site and the upstream watershed area are shown on the vicinity map, Figure 1. The site is generally undeveloped with only two paved roads, Avenue D and 170th Street, as well as an existing home and a few agricultural structures. The terrain is gradually sloped at approximately 1 percent from the southwest to the northeast across the project site. Three incised channels were identified on the site. The site is covered with typical vegetation for southeastern California desert. Photograph 1 is typical of the site.

1.3 Tributary Area Description

The total area tributary to the site is approximately 23 square miles. The majority of the tributary area (about 16 square miles) drains onto the site in the vicinity of the Avenue D and 170th Street intersection. A deeply incised channel flows from the intersection to the northeast where it diminishes to being nearly non-existent about midway through the project site. There is also a significant defined channel along the southern edge of the project referred to as Broad Creek that receives runoff from approximately 5 square miles. Four other locations were identified where offsite flows drain onto the project site, though only one of these has become incised.

The largest tributary watershed includes an approximately 12-square-mile area in the mountains southwest of the project site that drains through flumes over the California Aqueduct towards the project site. An additional 4 square mile area below the aqueduct drains toward the project site. The combined flows are conveyed in an incised channel that begins near the intersection of 170th Street and Avenue D.

The Broad Creek watershed includes a 3-square-mile watershed that drains across the aqueduct toward the southern tip of the project site, and an additional 2 square miles that drains toward the project site between the aqueduct and the project boundary. A defined channel conveys the flows across the southern edge of the project site.

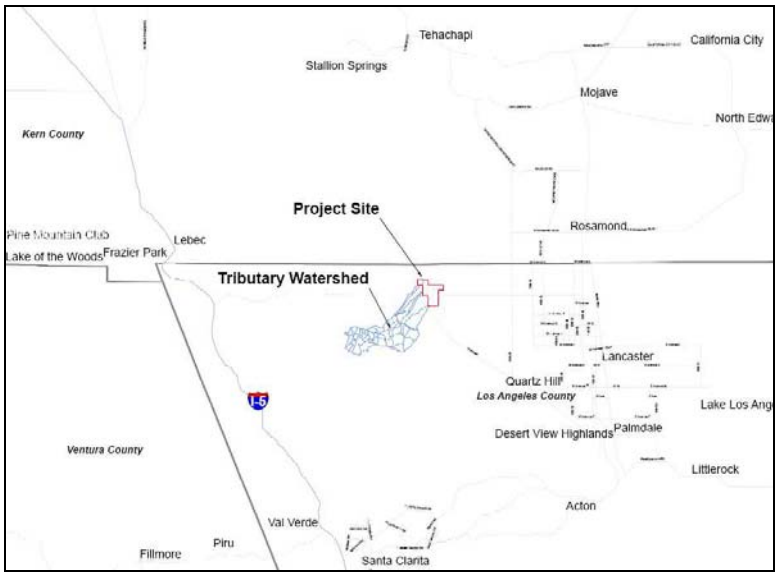


Figure 1. Vicinity map

Map Source: GIS shapfiles of the US Interstates and the National Highway Network from the US Geological Survey.

Photograph 1. Typical vegetation on the project site.

2.0 EXISTING CONDITIONS HYDROLOGY

The hydrologic analysis for this study was performed using the U.S. Army Corps of Engineers (USACE) Los Angeles District computer program LAPRE-1. LAPRE-1 was used to define the precipitation patterns and unit hydrographs that were used to calculate runoff in the USACE computer program HEC-1. HEC-1 was used to calculate the runoff hydrographs and perform routing of flows within and through the subdivided watersheds. The computer program HEC-RAS was used to calculate water surface elevations on the project site. The primary purpose of this analysis was to calculate 100-year flood conditions. Pre- and post-project 50-year peak discharges were also calculated using the same methodology to provide a preliminary assessment of potential project impacts on offsite peak flows.

The flow rates computed for this report are preliminary. Actual topography and hydrologic conditions can cause flow splitting and spreading. As indicated in the Los Angeles County *Hydrology Manual*, dated January 2006, "The valley lacks defined drainage channels outside of the foothills and is subject to unpredictable drainage patterns." Furthermore, available topographic data limits the accuracy of the watershed delineations hydrology and the ability to predict potential spreading. Also, flumes across the California Aqueduct limit peak discharges to the site and the methods used to evaluate this limitation were approximate. Alternative methods for hydrologic analysis, which range from application of the procedures in the *Hydrology Manual* to analysis based on refined topography and 2-dimentional analysis, could be used in the process of calculating design discharges as part of a future study to support design.

2.1 Watershed Parameters

Watershed parameters are used to calculate the volume of incident rainfall, the amount of incident rainfall that becomes runoff, and the rate that the runoff will occur. Soil characteristics and ground cover influence the amount of incident rainfall that becomes runoff (effective rainfall). Ground slopes, ground cover and channelization can impact the rate of runoff in the watershed.

2.2 Watershed Areas

The area tributary to the site was divided into a number of drainage areas to appropriately perform hydrologic calculations that provide preliminary design discharges toward the site. Due to hydraulic limitations at the California Aqueduct, flows upstream from the Aqueduct were determined distinctly from flows downstream from the Aqueduct.

The tributary watershed above the California Aqueduct that drains to the intersection of Avenue D and 170th Street was subdivided into 33 watersheds with areas less than 1 square mile each. These are identified as DA01 through DA33 on Exhibit 1. The 33 watersheds drain to three concentration points along the aqueduct that correspond to the location of flumes that convey runoff over the aqueduct (flumes 1, 2, and 3 shown on Exhibit 1). The Broad Creek watershed was divided into 4 watersheds above the Aqueduct (drainage areas BC1 through BC4) that drain to two flumes (flumes 4 and 5 shown on Exhibit 1).

Additionally, watershed areas were delineated to calculate runoff originating between the Aqueduct and the site, and to calculate runoff originating on the site, itself.

2.3 Soil Data, Land Use and Ground Cover

Soil Conservation Services (SCS) curve numbers were determined for each watershed to calculate rainfall loss rates in accordance with methodology described in detail in the United States Department of Agriculture, National Resources Conservation Service (NRCS) publication TR-55. The SCS curve numbers are based on soil type, impervious area, and cover. The soil type was determined from the NRCS soil survey and GIS shapefiles. A soil map showing the areas of different hydrologic soil groups is included in Appendix A. Generally, the soils in the mountain portion of the watershed have high runoff potential (Hydrologic Soil Group D), while valley areas have soils with lower runoff potential (Hydrologic Soil Group B). The impervious area of each watershed was determined from a land use shapefile obtained from the County of Los Angeles. The percent impervious throughout the watershed indicated in the shapefile is one percent. Cover was determined by inspection of aerial photos. Roughness values for each watershed were also determined from aerial photos. The SCS curve numbers based on soil type and cover are listed in Table 1.

Table 1. SCS Curve Numbers of Hydrologic Soil-Cover Complexes

Cover	CN		
	Soil Type		
	B	C	D
Chaparral, Good	57	71	78
Chaparral, Fair	63	75	81
Chaparral, Poor	70	80	85
Grass, Fair	69	79	84

2.4 Precipitation and Effective Rainfall

Rainfall depths were extracted from two nearby rain gages on the NOAA Atlas 14 website[1]. These gages indicated 100-year 24-hour precipitation depths of 8.36 inches at the mountain location and 5.12 inches at the valley location.

One rain gage is in the mountains west of Lancaster, about 9 miles south of the project site and about 8 miles southeast of the centroid of the tributary watershed. The elevation of the gage is 5100 feet, which is about 350 feet below the highest elevations in the watershed tributary to the project site.

The other rain gage used in the hydrology study is in Antelope Valley, west of Lancaster, about 2 miles south of the project site, at an elevation of 2800 feet. Elevations on the project site vary between approximately 2735 and 2600 feet.

Rainfall depths for each subdivided watershed in the mountain area were scaled based on 50-year 24-hour isohyetals from LA County and the 50-year 24-hour rainfall depths at the gage in the mountains. The 50-year 24-hour rainfall depth for the gage is 7.4, while the 50-year 24-hour rainfall depth from the isohyetals on the upper portions of the watershed is about 9.5 inches. For the subdivided watersheds in the valley area, the 50-year 24-hour rainfall depths were

[1] NOAA Atlas 14 website: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html

scaled from the gage in the valley. The 100-year 24-hour rainfall depths were normalized to the 50-year 24-hour rainfall depths using the isohyetals. The 100-year 24-hour precipitation depths calculated in this manner for this study range from about 11 inches in the upper reaches of the watershed down to about 5 inches in the valley near the aqueduct.

2.5 Precipitation Patterns and Unit Hydrographs

The LAPRE-1 preprocessor was used to prepare precipitation patterns and runoff unit hydrographs for the analysis. The precipitation pattern was selected from the Los Angeles District Design storms. The Southern California 24-hour intermediate storm was selected. For each watershed, the total rainfall depth distributed based on incremental precipitation values. Unit hydrographs were determined by LAPRE-1 based on assignment of an appropriate S-graph shape for either mountain or valley and lag time. LAPRE-1 calculates lag time based on watershed length, slope and roughness parameters and generates an appropriate unit hydrograph to transform each effective rainfall hydrograph to a runoff hydrograph. The results of the LAPRE-1 were a 24-hour precipitation pattern and a unit hydrograph for each watershed. The SCS curve number, percent impervious, drainage area, 24-hour 50 and 100-year rainfall depths, lag time and S-graph shape for each drainage area are listed in Table 2.

Table 2. Drainage Area Parameters

Name	SCS Curve Number	Percent Impervious	Drainage Area (mi^2)	S-Graph	Lag Time (minutes)	50-year 24-hour Rainfall Depth (in)	100-year 24-hour Rainfall Depth (in)
DA01	78	1.0%	0.26	mountain	10.2	9.50	10.75
DA02	78	1.0%	0.18	mountain	9.6	9.70	10.97
DA03	78	4.7%	0.19	mountain	9.6	9.20	10.41
DA04	78	1.0%	0.34	mountain	14.4	9.30	10.52
DA05	78	1.0%	0.29	mountain	13.8	8.80	9.96
DA06	63	2.9%	0.26	mountain	14.4	8.55	9.67
DA07	69	1.0%	0.33	mountain	9.6	8.20	9.28
DA08	81	1.0%	0.23	mountain	12.0	8.20	9.28
DA09	78	1.0%	0.06	mountain	6.6	8.70	9.84
DA10	81	1.0%	0.20	mountain	8.4	8.40	9.50
DA11	81	1.0%	0.11	mountain	9.6	8.05	9.11
DA12	81	1.0%	0.29	mountain	7.8	8.30	9.39
DA13	81	1.0%	0.07	mountain	6.0	8.20	9.28
DA14	71	1.0%	0.62	mountain	13.2	9.75	11.03
DA15	78	1.0%	0.39	mountain	14.4	8.90	10.07
DA16	71	1.0%	0.87	mountain	12.6	9.20	10.41
DA17	81	1.0%	0.22	mountain	6.0	8.70	9.84
DA18	81	1.0%	0.15	mountain	9.6	8.55	9.67
DA19	81	1.0%	0.31	mountain	9.6	8.30	9.39
DA20	78	1.0%	0.28	mountain	10.8	8.60	9.73
DA21	81	1.0%	0.16	mountain	6.0	8.20	9.28
DA22	78	1.0%	0.55	mountain	10.2	8.50	9.62
DA23	84	1.0%	0.05	mountain	9.0	8.10	9.16
DA24	69	1.0%	0.50	mountain	11.4	7.80	8.82

Name	SCS Curve Number	Percent Impervious	Drainage Area (mi^2)	S-Graph	Lag Time (minutes)	50-year 24-hour Rainfall Depth (in)	100-year 24-hour Rainfall Depth (in)
DA25	70	1.0%	0.37	valley	13.2	6.90	7.81
DA26	70	1.0%	0.41	mountain	15.0	7.80	8.82
DA27	70	2.2%	0.43	mountain	10.2	7.50	8.48
DA28	70	1.0%	0.90	valley	16.2	7.00	7.92
DA29	78	1.0%	0.47	mountain	12.0	8.30	9.39
DA30	78	1.0%	1.08	mountain	18.6	7.90	8.94
DA31	70	1.0%	0.61	valley	13.2	7.10	8.03
DA32	70	1.0%	0.40	valley	13.2	7.35	8.31
DA33	70	1.0%	0.26	valley	7.8	6.90	7.81
DA41	70	1.0%	0.55	valley	31.8	4.80	5.43
DA42	70	1.0%	1.24	valley	31.8	4.80	5.43
DA43	70	1.0%	1.18	valley	28.2	4.50	5.88
DA44	70	1.0%	2.93	valley	20.4	4.40	5.76
BC1	75	1.0%	0.63	mountain	15.0	8.40	9.50
BC2	81	1.0%	0.86	mountain	13.8	7.60	8.60
BC3	80	1.0%	0.98	valley	9.0	7.00	7.92
BC4	79	1.0%	0.47	valley	6.6	7.00	7.92
BC5	70	1.0%	2.05	valley	28.2	6.00	6.79
DA50	63	1.0%	0.18	valley	9.0	3.30	3.73
DA51	63	1.0%	0.10	valley	10.2	3.30	3.73
DA52	63	1.0%	0.36	valley	14.4	3.30	3.73
DA53	63	1.0%	0.52	valley	16.8	3.40	3.85
DA54	63	1.0%	1.02	valley	23.4	3.30	3.73
DA55	63	1.0%	1.04	valley	17.4	3.60	4.07
DA56	63	1.0%	0.13	valley	13.8	3.90	4.41

2.6 Reach Routing

The Muskingum-Cunge method was used to route the runoff from upstream watersheds through the downstream watersheds. The routing parameters were based on roughness values and estimated channel geometries estimated from aerial photography and USGS topographic mapping. The runoff hydrographs were routed and combined in HEC-1 to produce runoff hydrographs at each of the concentration points along the California Aqueduct.

2.7 Hydrology Results

The results of the HEC-1 analysis showed that the peak 100-year flows to the five flumes are approximately 1000 cfs, 6000 cfs, 1200 cfs, 300 cfs and 1700 cfs, as illustrated on Exhibit 2. The runoff hydrographs to the five flumes are shown in Figure 2.

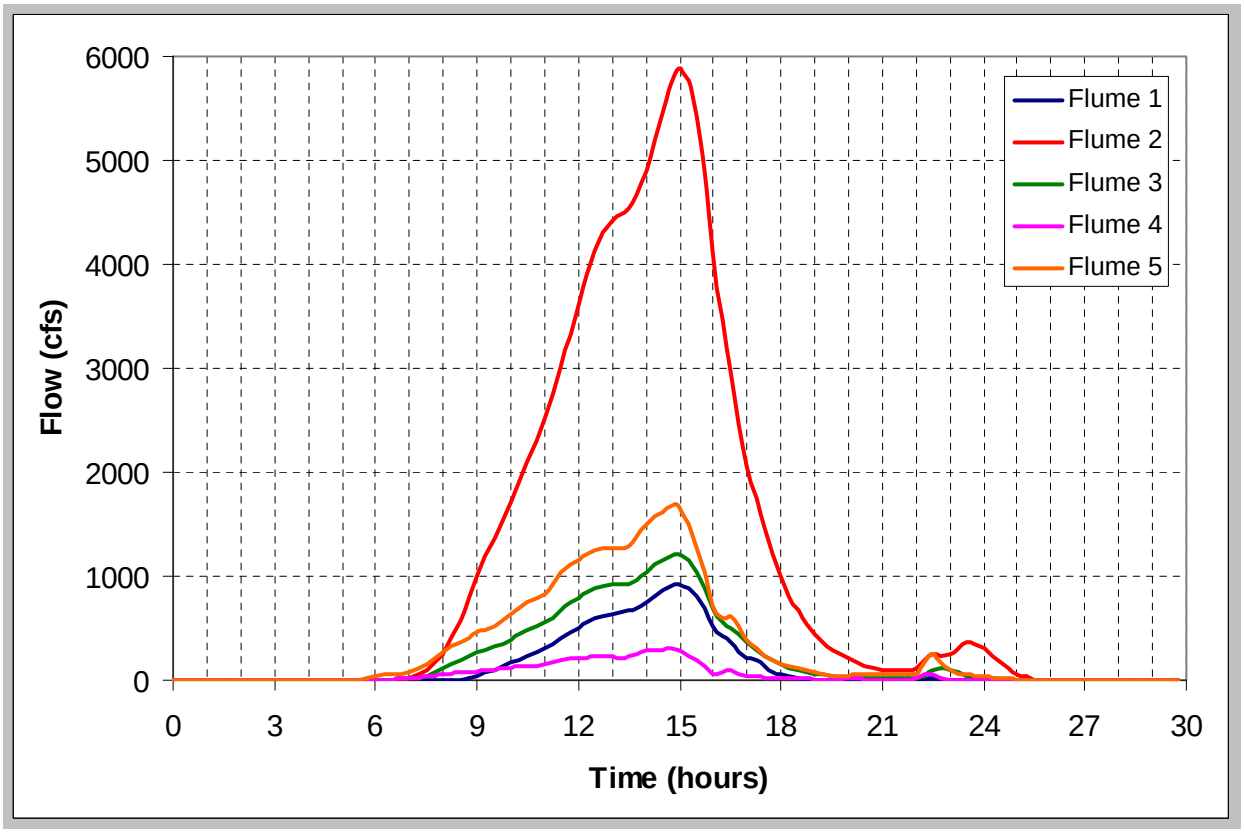


Figure 2. Runoff hydrographs just upstream of flumes.

3.0 HYDRAULIC ANALYSIS

Major storm peak discharges toward the site are constrained by the capacity of flumes that convey runoff across the California Aqueduct. The peak constrained discharges were estimated to determine a upper limit of peak discharge toward the site. The estimated discharges from the flumes were added to discharges originating between the flumes and the site to estimate peak discharges across the site. These peak discharges were used in the USACE computer program HEC-RAS to calculate 100-year flood depths and velocities on the project site. These depths were used as a basis for delineating floodplains.

3.1 Flume Analysis

Five flumes and one culvert cross the California Aqueduct to convey flows that are tributary to the project site. The flume dimensions were estimated from aerial photography and topographic data from Intermap. Flow to each flume is limited by a culvert upstream from the flume. A summary of the estimated flume and culvert dimensions is included in Table 3. Survey of flume

and culvert dimensions, or obtaining as-built dimensions, will be necessary to perform detailed analysis for site design.

The five flumes were analyzed to estimate the maximum flow through the flumes before excess runoff would pond and spill into the California Aqueduct. The orifice equation was used to determine the flow at the estimated maximum depth that appears could occur upstream from the culverts that are immediately upstream from the flumes. Flumes 1-3 drain to the conveyance toward the intersection of 170th and Avenue D. The estimated combined maximum capacity of the three flumes is 4,000 cfs. Flumes 4-5 drain to Broad Creek. These two flumes have an estimated combined maximum capacity of 1300 cfs.

Table 3. Flume dimensions and capacities

	Estimated Width (ft)	Estimated Height of Culvert	Number of Barrels	Maximum Water Depth Upstream of Culvert Before Spilling (ft)	Maximum Flow capacity, cfs	Downstream Channel
Flume 1	10	5	1	5	400	Primary Channel
Flume 2	12	5	3	10	2400	Primary Channel
Flume 3	10	5	2	8	1200	Primary Channel
Flume 4	9	5	1	5	300	Broad Creek
Flume 5	12	5	2	5	1000	Broad Creek
Culvert	5 feet diameter		1		200	Broad Creek

A typical flume is shown in photograph 2; however, this is not one of the flumes that drains toward the project site.

Photograph 2. Example of a flume across the aqueduct

3.2 Flows on the Project Site in addition to Flows across the Flumes

Flows originating between the Aqueduct and on the site must also be addressed for various drainage considerations. These flows can add to peak discharges that cause major flooding, cause shallow flooding, and can concentrate and cause erosion. Three locations were identified where significant discharges may cross onto the western side of the site and flows originating on the project site south of Avenue D concentrate and cross Avenue D and form a distinct drainage course. The estimated 100-year discharge across Avenue D approximately 0.35 mile east of 170th Street is 200 cfs flows. At Broad Creek, 900 cfs of runoff originating downstream from the flumes combines with the 1500 cfs that discharges from Flumes 4 and 5 and the culvert, totaling 2,400 cfs as the preliminary 100-year peak flow rate. Other flows also reach the project site at various locations. Exhibit 3 illustrates the flow paths and estimated peak discharges. Photograph 3 shows the primary incised channel on the project site just east of 170th Street.

Flows from the concentration points at the Aqueduct tend to spread out and recombine as the flows are conveyed across open spaces and then concentrated by roadways. For the main tributary area upstream from the intersection of Avenue D and 170th Street the combined flow capacity of Flumes 1 through 3 of 4,000 cfs is added to 1,100 cfs that originated between the Aqueduct and the project site, totaling 5,100 cfs as the preliminary 100-year discharge at the intersection.

Photograph 3. Incised channel on project site.

3.3 HEC-RAS Analysis

HEC-RAS was used to estimate the limits of flooding and flow velocities along the more defined drainages across the site. Cross sections on the site north of Avenue D were obtained from the site topographic survey performed by Westwood on the main project site. Cross sections of Broad Creek were cut from topographic data from Intermap because the channel extends outside the project site boundaries. Roughness values for the cross sections were estimated from site photos. A Mannings n-value of 0.05 was assigned for the incised channel area and a Mannings n-value of 0.1 was assigned for areas outside of the incised channel. Three separate stream reaches were modeled for the project site; the primary reach is downstream from where the majority of the flow will over top 170th Street, just north of Avenue D. A lateral weir approximation was used to estimate split flow from the intersection along the road to the north. An additional reach was used to model where flow from the south will overtop Avenue D approximately 0.35 mile east of 170th Street. A third reach was used for Broad Creek along the southern edge of the site. The HEC-RAS model was used to calculate water surface elevations at each of the cross sections. The resulting water surface elevations were used to delineate a floodplain on the Westwood topography for the main project area and on the Intermap topography for Broad Creek. Exhibit 4 shows the location of the HEC-RAS cross sections for the main portion of the project site, and Exhibit 5 shows the location of the HEC-RAS cross sections for Broad Creek. The profiles and cross sections for the major floodplain and Broad Creek are provided in Appendix B.

3.4 Evaluation of Potential Flood Hazard

Exhibit 3 shows the delineated floodplain which is an estimate of the flooding extents for the 100-year storm event. The floodplain along the main channel for flows that enter the site near the intersection of Avenue D and 170th Street was delineated. Areas that were estimated (considering the accuracy of the topographic mapping) to have the potential to flood to depths greater than 1.5 feet during a 100-year storm are shown on Exhibit 3. Additional areas of the site have flooding potential due to spilt flow condition that may occur just east of 170th Street and due to flows from other tributary areas were not mapped. The extent of flooding in Broad Creek is largely confined in the channel, as shown.

Velocity distribution from HEC-RAS was used to create the map of the estimated velocities in the floodplain. Exhibit 6 shows a map of the estimated velocities.

4.0 PROJECT IMPACT ON PEAK DISCHARGES

Additional analysis was performed to quantify the potential impacts of site improvements on downstream discharges. These potential impacts were evaluated using 50-year design storm flows, in the same manner as the 100-year discharges were calculated, except that 50-year precipitation depths were used and an estimate of effective impervious area was included. The 50-year storm was selected for potential impact analysis because it is typically used for facility design based on LA County *Hydrology Manual* procedures. The site will not include a storm drainage collection system and runoff from the impervious areas of the photovoltaic panels, roads and other improvements will be dispersed to minimize site runoff. With no directly connected impervious area (impervious areas connected to a storm drain system), the effective impervious area can be considered to be significantly less than actual impervious area. Therefore, though it was estimated that the surface area of the photovoltaic panels will be about 17 percent of the project site, for the purposes of this analysis, it was estimated that 10 percent the site will be effective impervious area.

Exhibit 7 shows calculated 50-year post development discharges rates onto and from the project site. The percentage increase over predevelopment rates is also indicated. Two drainage areas, DA51 and DA55 are shown to have potential for relatively significant increases in peak discharges (on the order of 13 to 15 percent) because the areas that are tributary to the offsite discharge points are entirely within the project area. Though the fractional increase in runoff from DA51 may be significant, the true impact may not be as significant because the total flow is small and it would not be concentrated.

5.0 POTENTIAL MITIGATION MEASURES

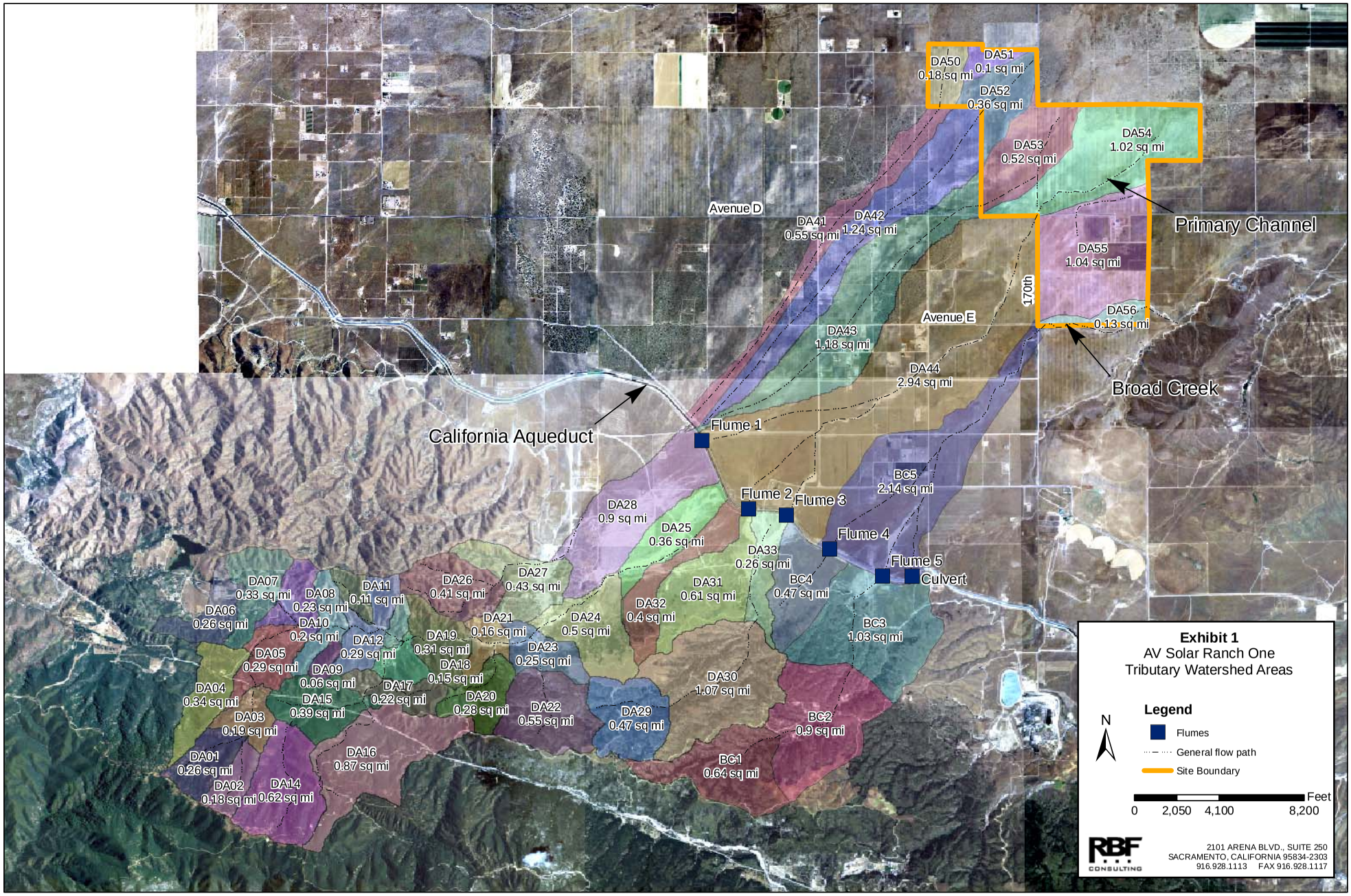
Measures will need to be included in site design to manage stormwater to be able to use as much of the site for solar power generation as is feasible, while limiting erosion that could impact the proposed facilities and potentially cause offsite impacts. Measures may include channel improvements, berms and swales, and appropriate Best Management Practices (BMPs) for site flow and erosion control. It may be necessary to include some detention within DA55 to mitigate for potential increased runoff where significant and potentially erosive flows may be concentrated and flows overtop Avenue D (Highway 138) during storm events that generate runoff.

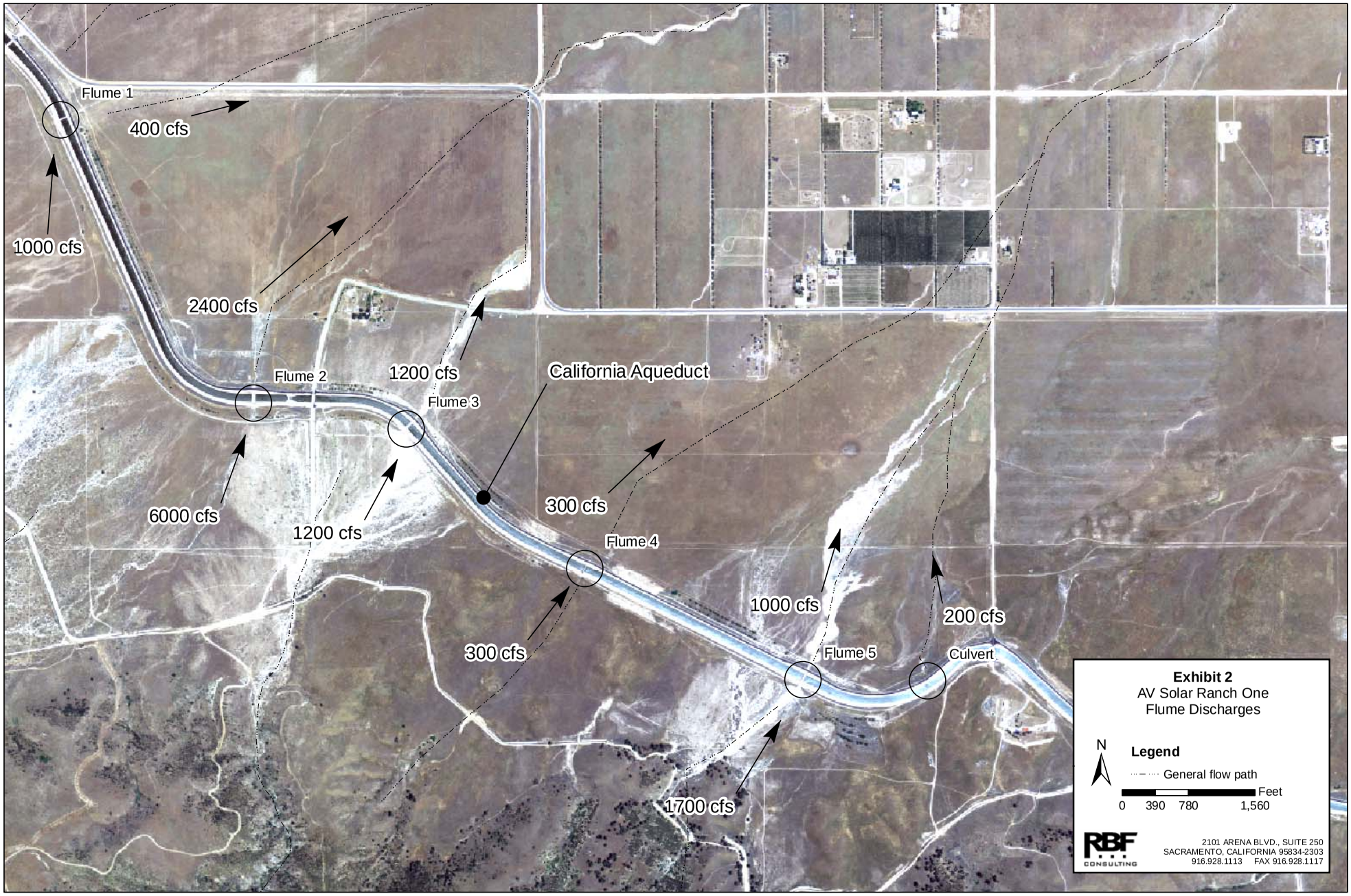
Channel improvements are recommended to control the currently unstable conditions along the main flow path from the southwest to the northeast corner of the site. The channel is deeply incised at each end of the site, but not from near the middle of the site to the northeast corner. Over time, it can be expected that further erosion would occur cause additional incision if stabilization measures are not implemented. Channelization, using drop structures and/or other energy dissipation and erosion control measures, could stabilize the flow path and increase the area where photovoltaic panel installations would be feasible. It should be noted that where the channel is incised in the southwest portion of the site and the floodplain width is relatively narrow, the channel is susceptible to significant erosion. Eroded material from the upstream portion of the site would likely deposit along the downstream portion of the site and may require significant maintenance effort. A spreading area at the northeast corner of the site will likely be required to dissipate energy and conform to existing grades at the site boundary. The configuration of the spreading area will require detailed consideration of the eroded conditions near the site boundary and the potential for future erosion, and will need to be developed in detail during the site design process.

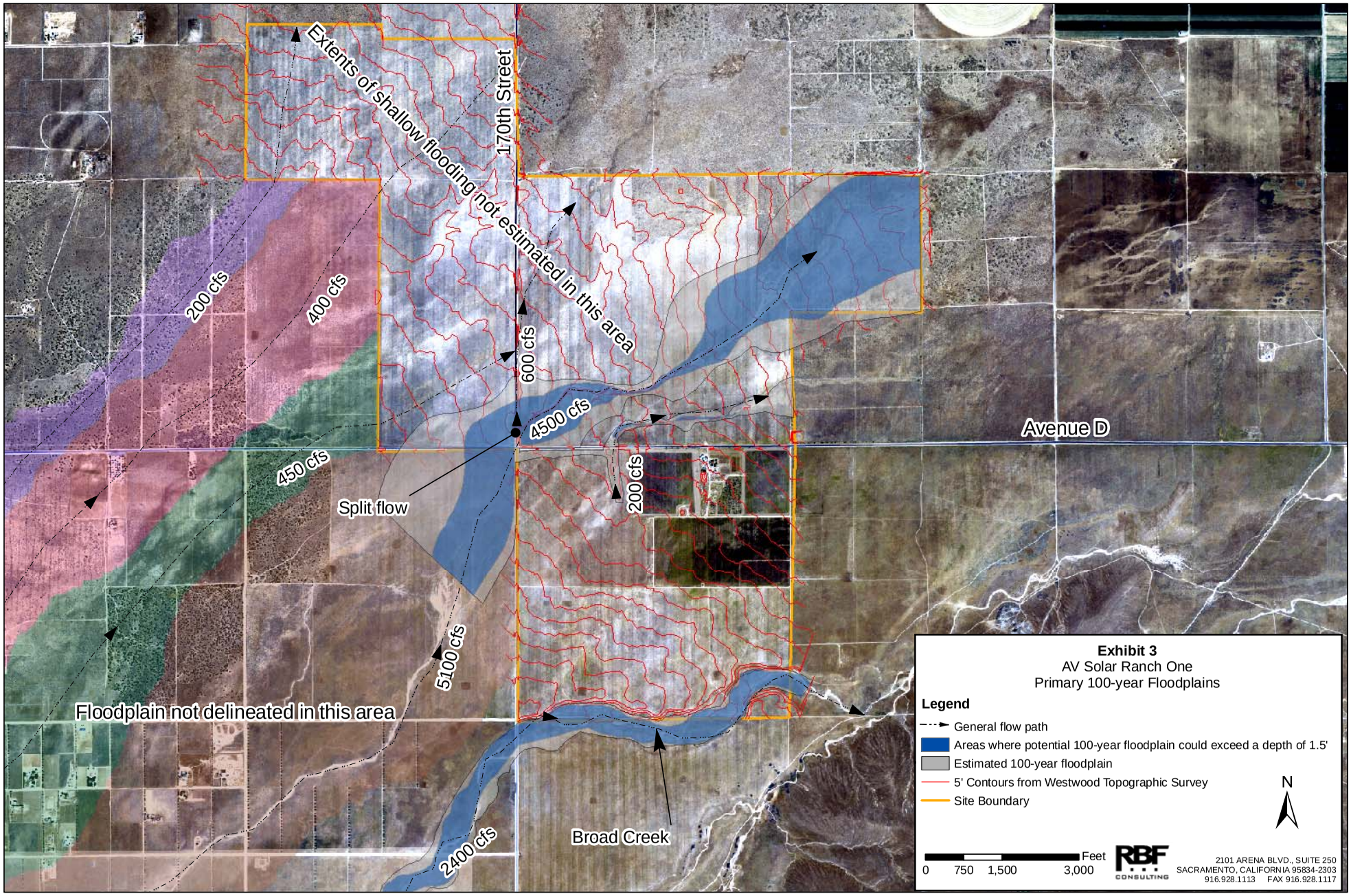
The site's existing, natural topography is subject to shallow flooding. Though the velocity of the shallow flows may not be highly erosive in the current condition of the site, installation of pedestal foundations may concentrate flows and cause conditions where erosive velocities could be generated. Alternative foundation configurations that would not obstruct as much flow may be appropriate in some areas of the site. More detailed analysis of flow depths and velocities as it relates to the potential impact of specific foundation configurations should be performed as part of the site design process.

All stormwater management measures will need to comply with the latest regulatory requirements.

Exhibits


DA50
0.18 sq mi
DA51
0.1 sq mi
DA52
0.36 sq mi
DA53
0.52 sq mi
DA54
1.02 sq mi
Primary Channel
Avenue D
DA41
0.55 sq mi
DA42
1.24 sq mi
DA55
1.04 sq mi
170th
Avenue E
DA56
0.13 sq mi
DA43
1.18 sq mi
DA44
2.94 sq mi
Broad Creek
California Aqueduct
Flume 1
BC5
2.14 sq mi
Flume 2
Flume 3
DA28
0.9 sq mi
DA25
0.36 sq mi
Flume 4
DA33
0.26 sq mi
Flume 5
Culvert
DA07
0.33 sq mi
DA08
0.23 sq mi
DA11
0.11 sq mi
DA26
0.41 sq mi
DA27
0.43 sq mi
DA31
0.61 sq mi
BC4
0.47 sq mi
DA06
0.26 sq mi
DA10
0.2 sq mi
DA32
0.4 sq mi
DA21
0.16 sq mi
DA24
0.5 sq mi
BC3
1.03 sq mi
DA12
0.29 sq mi
DA19
0.31 sq mi
DA05
0.29 sq mi
DA23
0.25 sq mi
DA09
0.06 sq mi
DA18
0.15 sq mi
DA30
1.07 sq mi
DA04
0.34 sq mi
DA17
0.22 sq mi
DA15
0.39 sq mi
DA20
0.28 sq mi
DA22
0.55 sq mi
DA29
0.47 sq mi
BC2
0.9 sq mi
DA03
0.19 sq mi
DA16
0.87 sq mi
DA01
0.26 sq mi
BC1
0.64 sq mi
DA02
0.18 sq mi
DA14
0.62 sq mi
Exhibit 1
AV Solar Ranch One
Tributary Watershed Areas
Legend
Flumes
General flow path
Site Boundary
N
0
2,050
4,100
8,200
Feet
RBF CONSULTING
2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117


Flume 1
400 cfs
1000 cfs
2400 cfs
Flume 2
1200 cfs
Flume 3
California Aqueduct
6000 cfs
1200 cfs
300 cfs
Flume 4
300 cfs
1000 cfs
200 cfs
Flume 5
Culvert
1700 cfs
Exhibit 2
AV Solar Ranch One
Flume Discharges
N
Legend
General flow path
Feet
0 390 780 1,560
RBF CONSULTING
2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117


Extents of shallow flooding not estimated in this area
170th Street
200 cfs
400 cfs
600 cfs
4500 cfs
450 cfs
Split flow
200 cfs
Avenue D
5100 cfs
Floodplain not delineated in this area
Broad Creek
2400 cfs
Exhibit 3
AV Solar Ranch One
Primary 100-year Floodplains
Legend
General flow path
Areas where potential 100-year floodplain could exceed a depth of 1.5'
Estimated 100-year floodplain
5' Contours from Westwood Topographic Survey
Site Boundary
N
0 750 1,500 3,000 Feet
RBF CONSULTING
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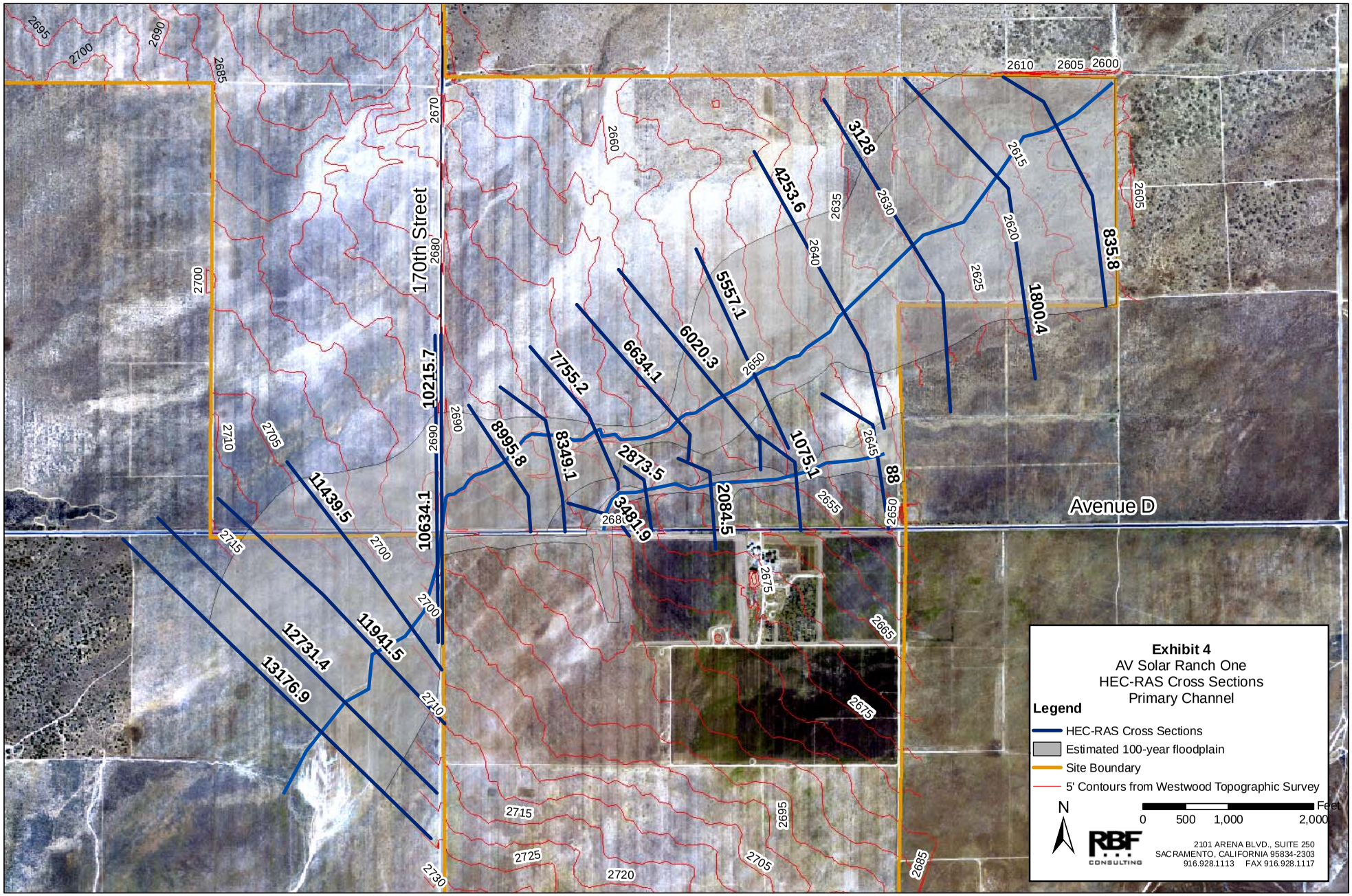
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117


170th Street
Avenue D
13176.9
12731.4
11941.5
11439.5
10634.1
10215.7
8995.8
8349.1
7755.2
6634.1
6020.3
5557.1
4253.6
3481.9
3128
2873.5
2084.5
1800.4
1075.1
835.8
88
Exhibit 4
AV Solar Ranch One
HEC-RAS Cross Sections
Primary Channel
Legend
HEC-RAS Cross Sections
Estimated 100-year floodplain
Site Boundary
5' Contours from Westwood Topographic Survey
N
0 500 1,000 2,000 Feet
RBF CONSULTING
2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117

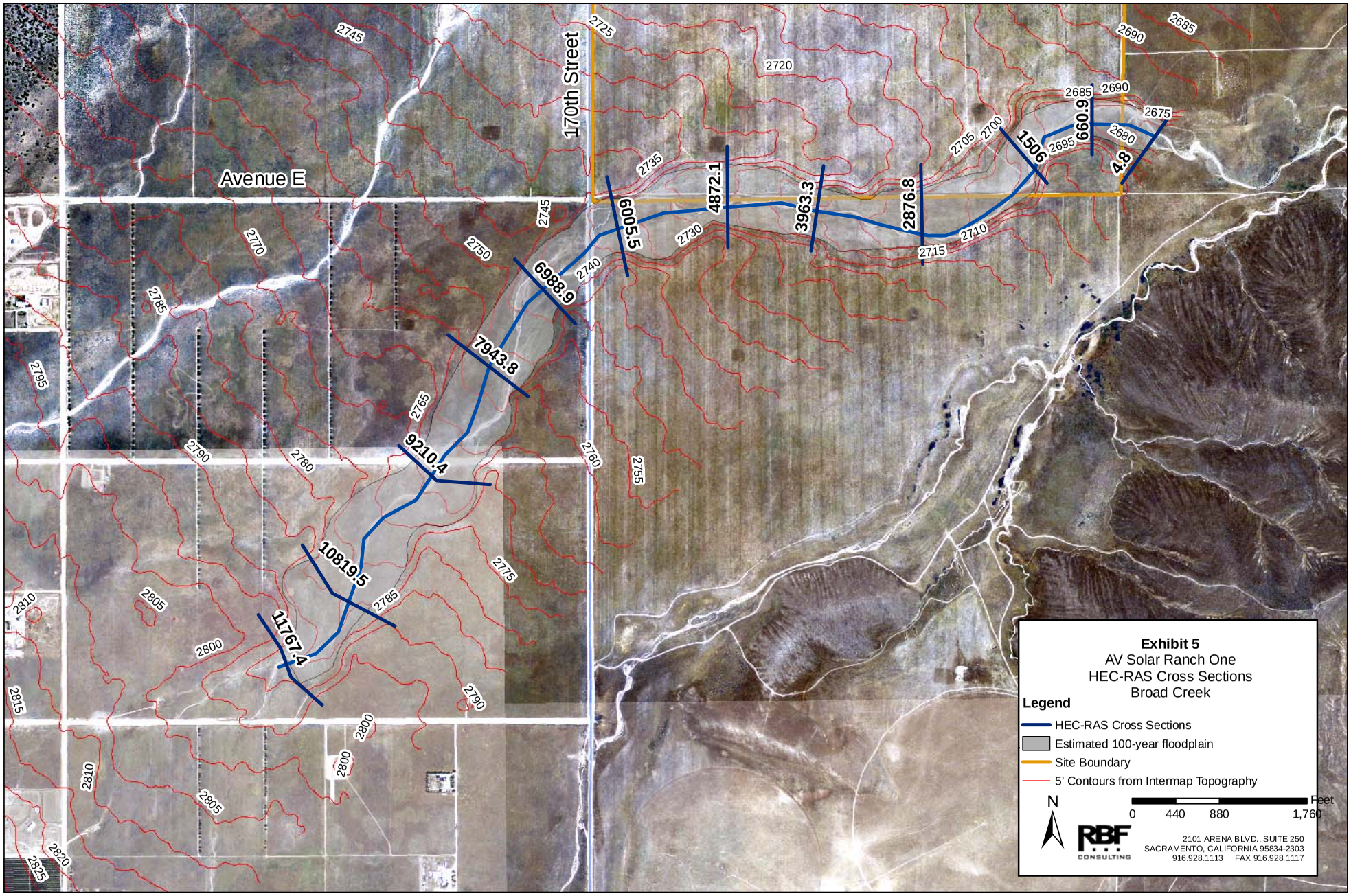
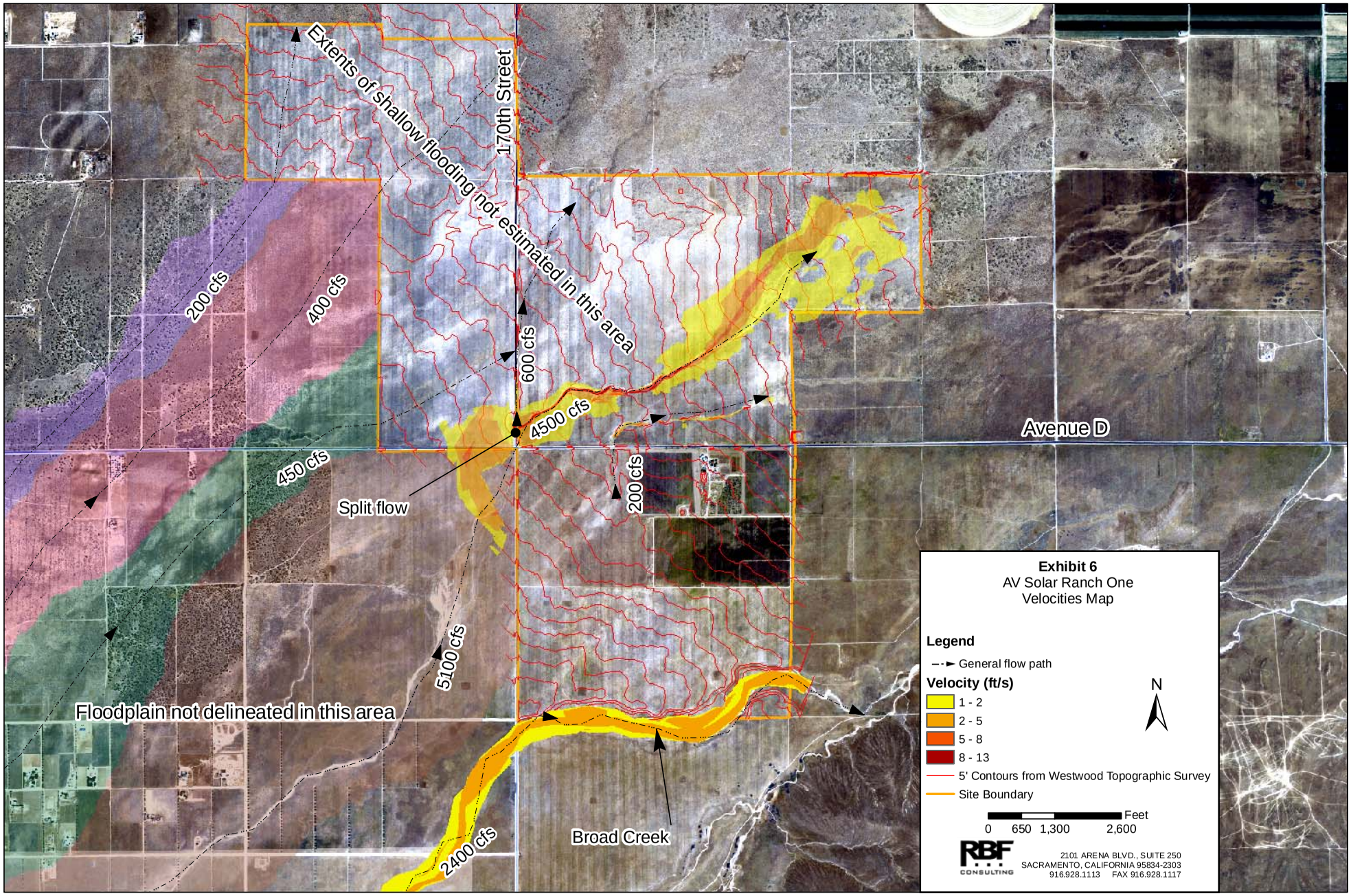


Exhibit 5
AV Solar Ranch One
HEC-RAS Cross Sections
Broad Creek

Legend

- HEC-RAS Cross Sections
- Estimated 100-year floodplain
- Site Boundary
- 5' Contours from Intermap Topography


Extents of shallow flooding not estimated in this area
170th Street
200 cfs
400 cfs
600 cfs
4500 cfs
450 cfs
Split flow
200 cfs
Avenue D
5100 cfs
Floodplain not delineated in this area
2400 cfs
Broad Creek
Exhibit 6
AV Solar Ranch One
Velocities Map
Legend
General flow path
Velocity (ft/s)
1 - 2
2 - 5
5 - 8
8 - 13
5' Contours from Westwood Topographic Survey
Site Boundary
N
Feet
0 650 1,300 2,600
RBF CONSULTING
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916.928.1113 FAX 916.928.1117

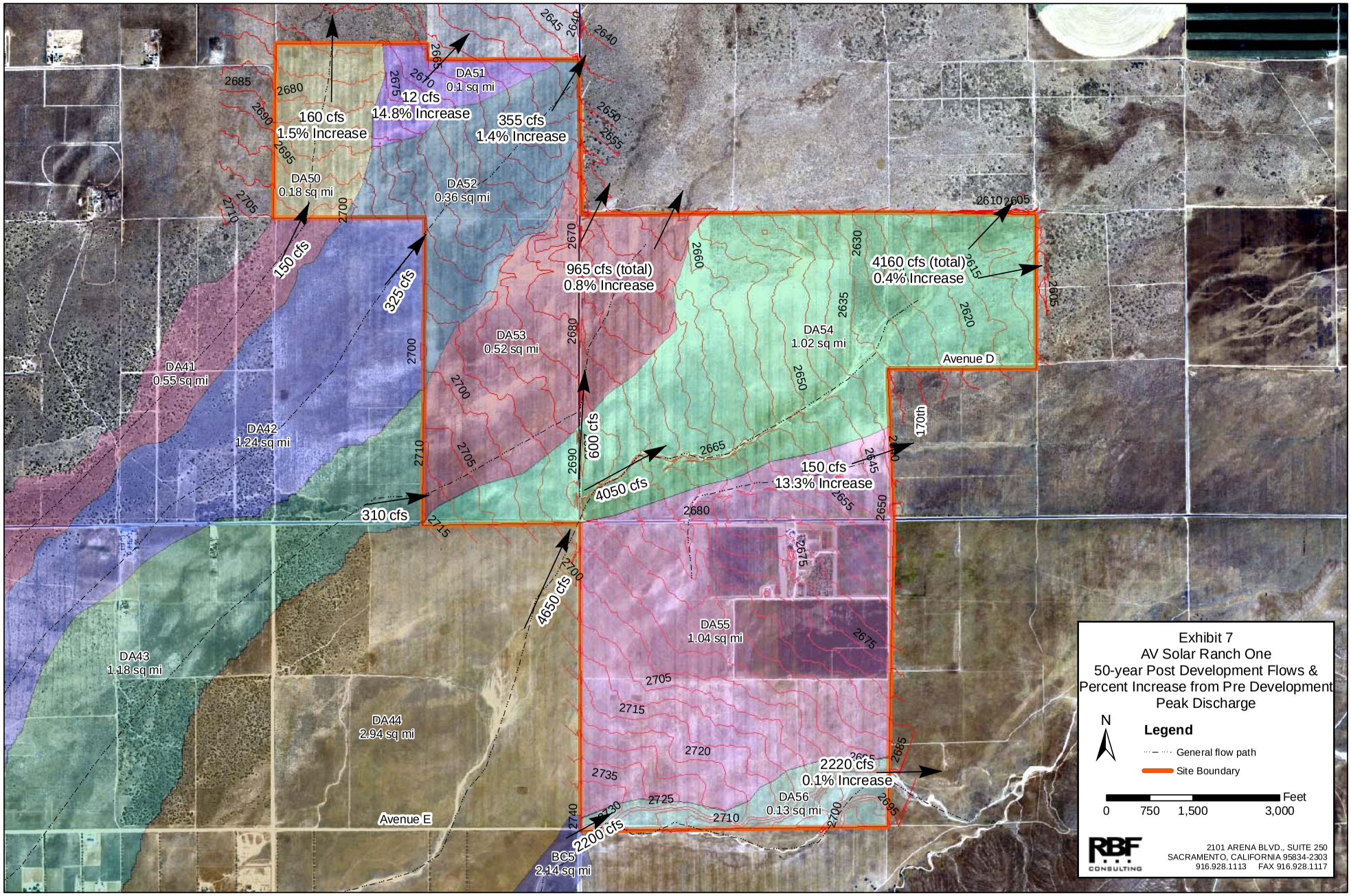
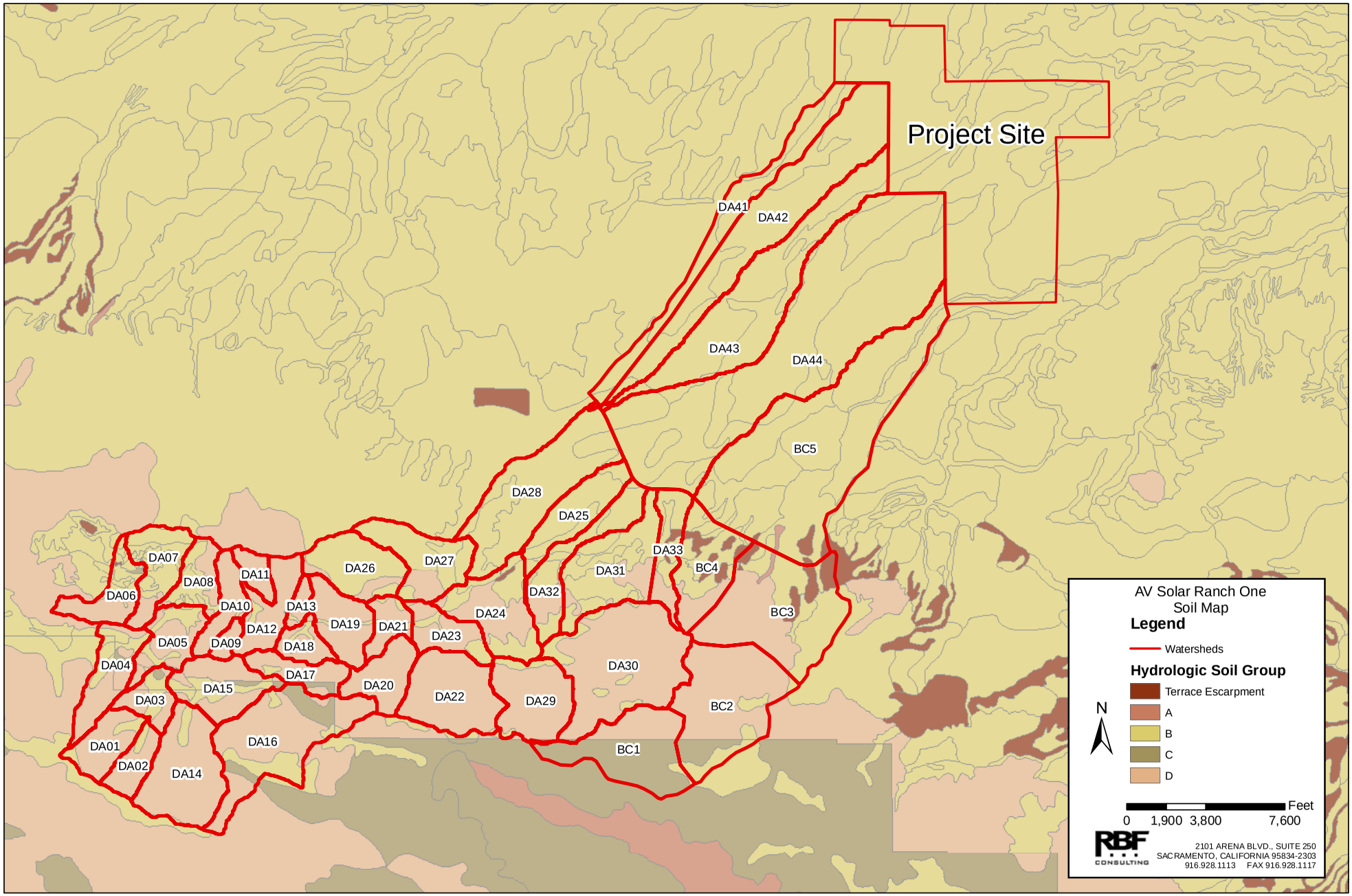
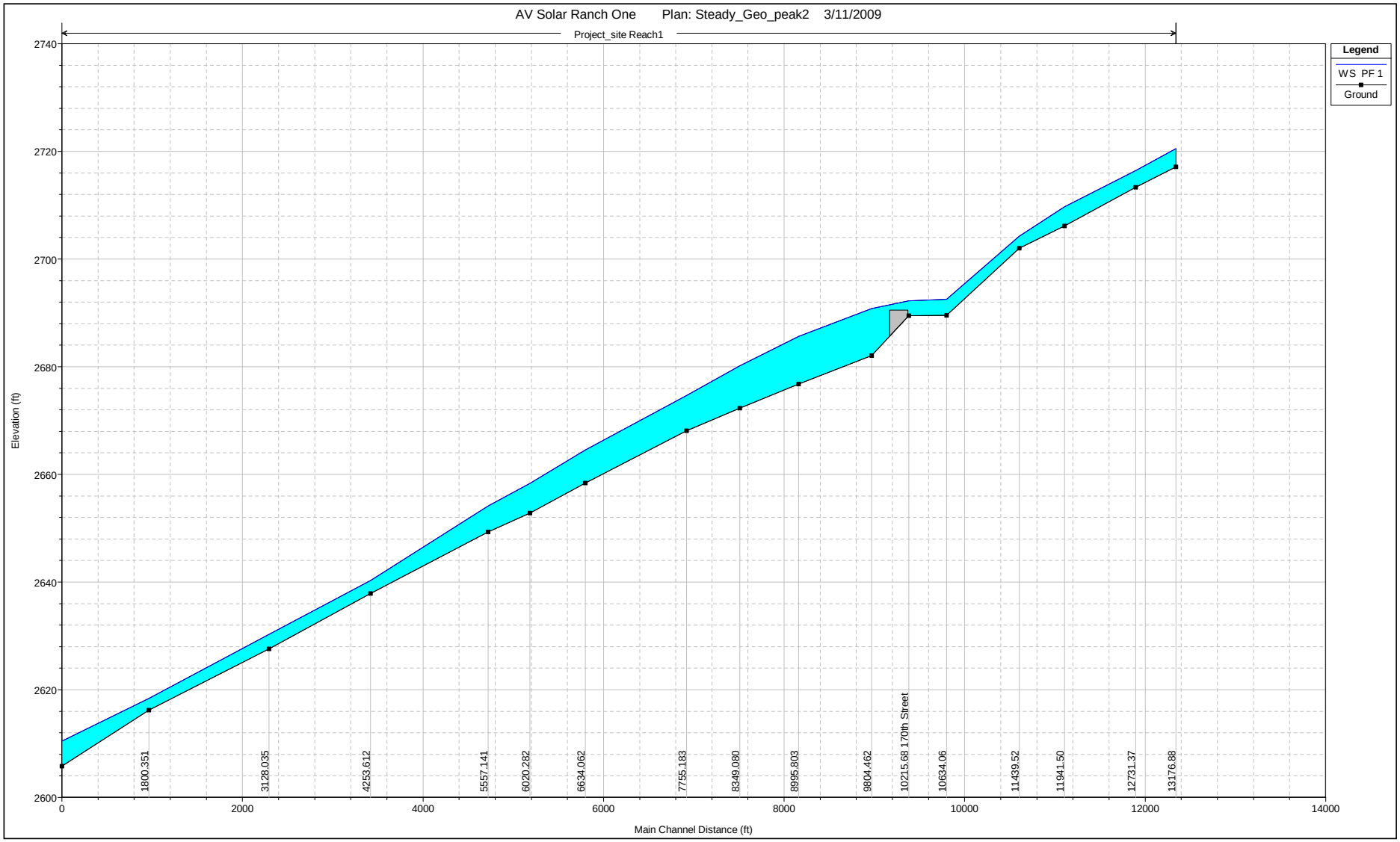


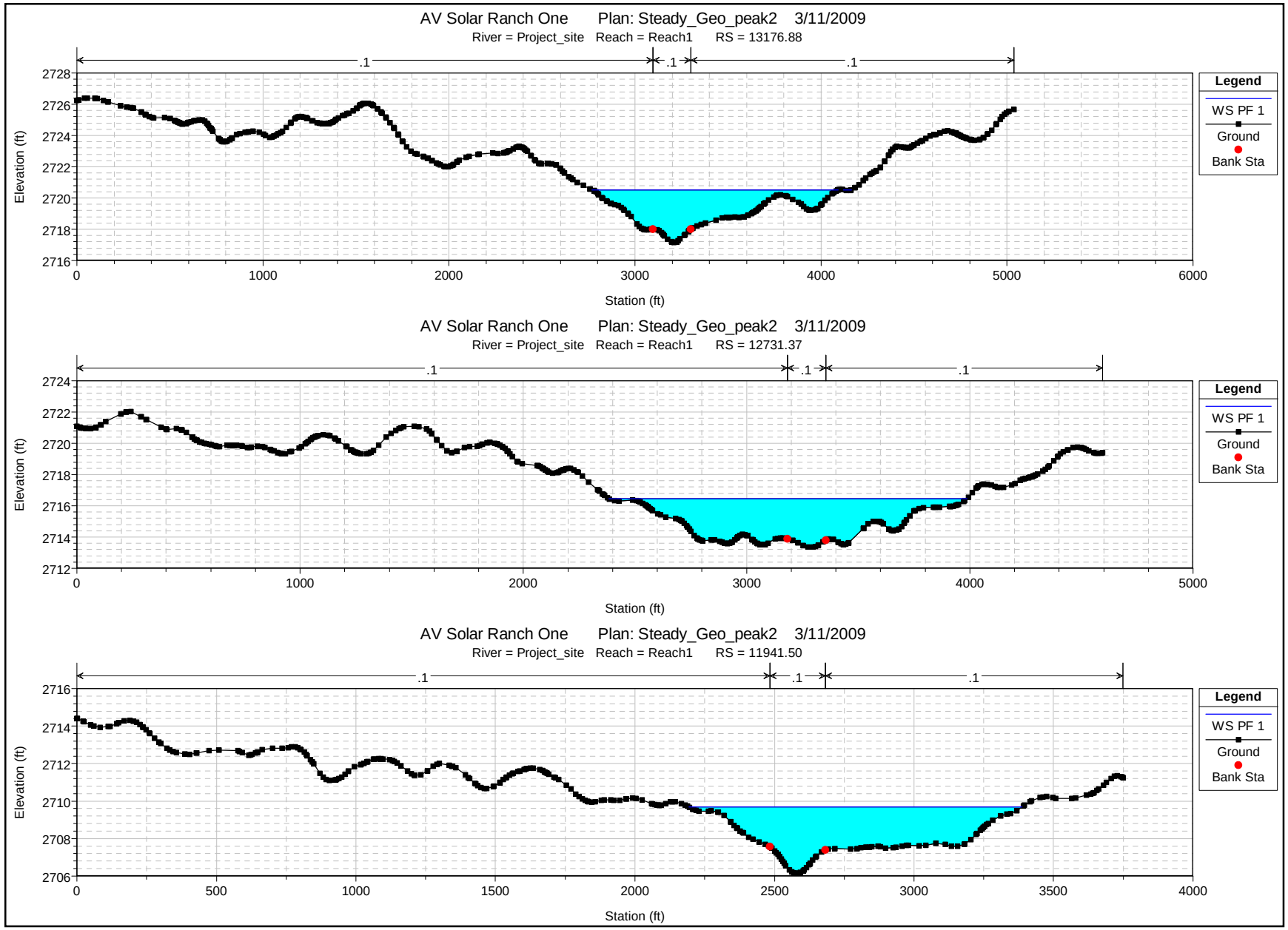
Exhibit 7
AV Solar Ranch One
50-year Post Development Flows &
Percent Increase from Pre Development
Peak Discharge
N
Legend
General flow path
Site Boundary
Feet
0
750
1,500
3,000
RBF CONSULTING
2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117
DA41
0.55 sq mi
DA42
1.24 sq mi
DA43
1.18 sq mi
DA44
2.94 sq mi
DA50
0.18 sq mi
DA51
0.1 sq mi
DA52
0.36 sq mi
DA53
0.52 sq mi
DA54
1.02 sq mi
DA55
1.04 sq mi
DA56
0.13 sq mi
BC5
2.14 sq mi
160 cfs
1.5% Increase
12 cfs
14.8% Increase
355 cfs
1.4% Increase
150 cfs
325 cfs
965 cfs (total)
0.8% Increase
4160 cfs (total)
0.4% Increase
600 cfs
4050 cfs
150 cfs
13.3% Increase
310 cfs
4650 cfs
2220 cfs
0.1% Increase
2200 cfs
Avenue D
Avenue E
170th

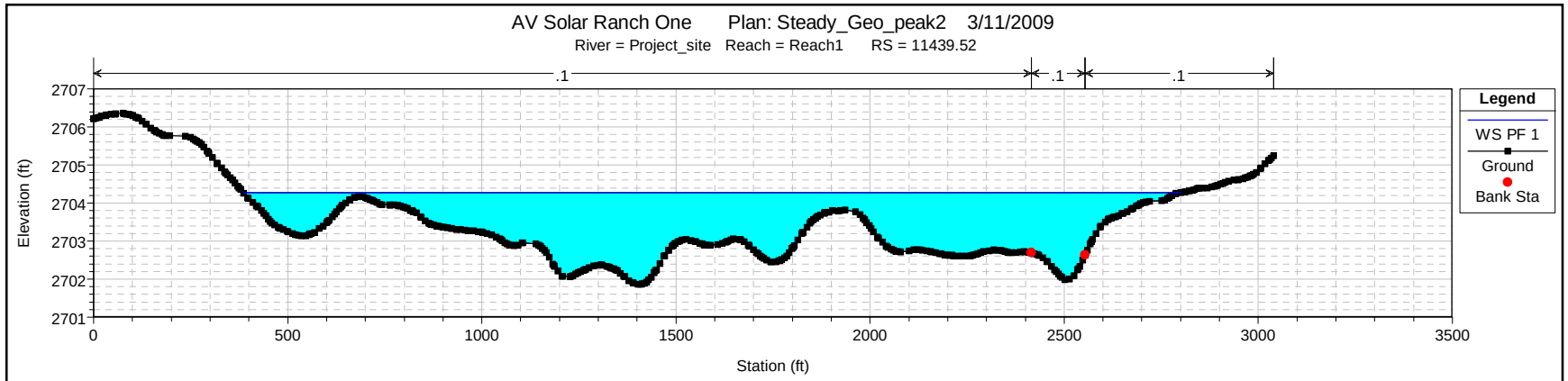
Appendix A –Soil Map

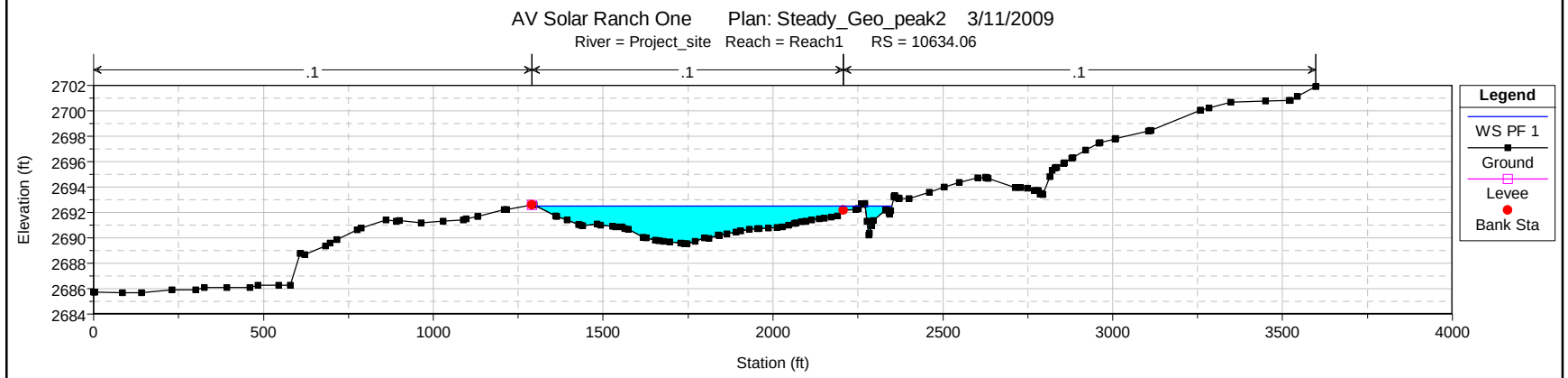

Project Site
DA41
DA42
DA43
DA44
BC5
DA28
DA25
DA33
BC4
DA31
DA32
BC3
DA24
DA23
DA30
BC2
BC1
DA29
DA22
DA20
DA21
DA19
DA26
DA27
DA11
DA13
DA10
DA12
DA18
DA17
DA15
DA16
DA14
DA07
DA08
DA06
DA05
DA09
DA04
DA03
DA01
DA02
AV Solar Ranch One
Soil Map
Legend
Watersheds
Hydrologic Soil Group
Terrace Escarpment
A
B
C
D
N
Feet
0 1,900 3,800 7,600
RBF CONSULTING
2101 ARENA BLVD., SUITE 250
SACRAMENTO, CALIFORNIA 95834-2303
916.928.1113 FAX 916.928.1117

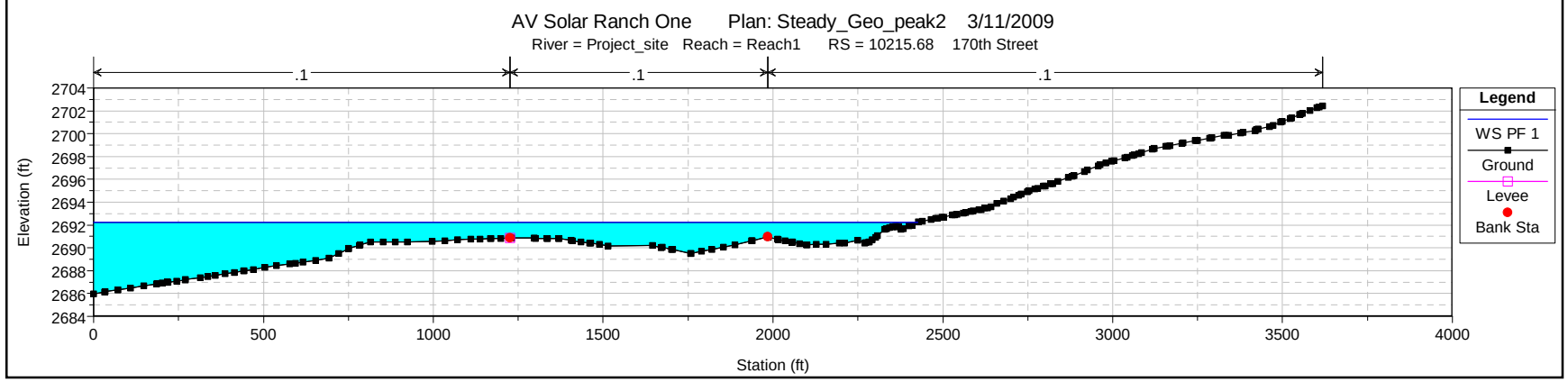
Appendix B – HEC-RAS Profiles and Cross Sections

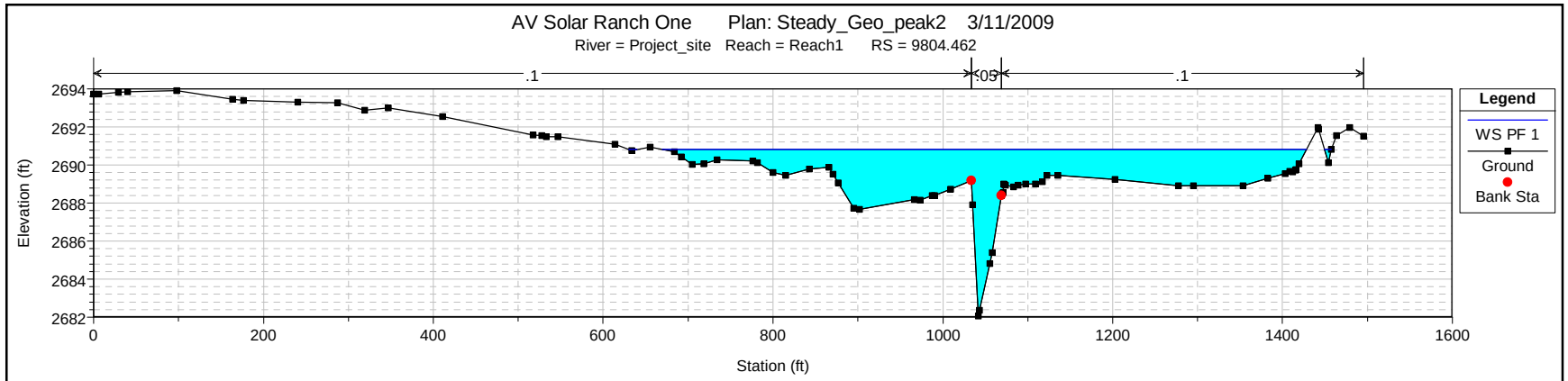

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
Project_site Reach1
Legend
WS PF 1
Ground
Elevation (ft)
2740
2720
2700
2680
2660
2640
2620
2600
0
2000
4000
6000
8000
10000
12000
14000
Main Channel Distance (ft)
1800.351
3128.035
4253.612
5557.141
6020.282
6634.062
7755.183
8349.080
8995.803
9804.462
10215.68 170th Street
10634.06
11439.52
11941.50
12731.37
13176.88

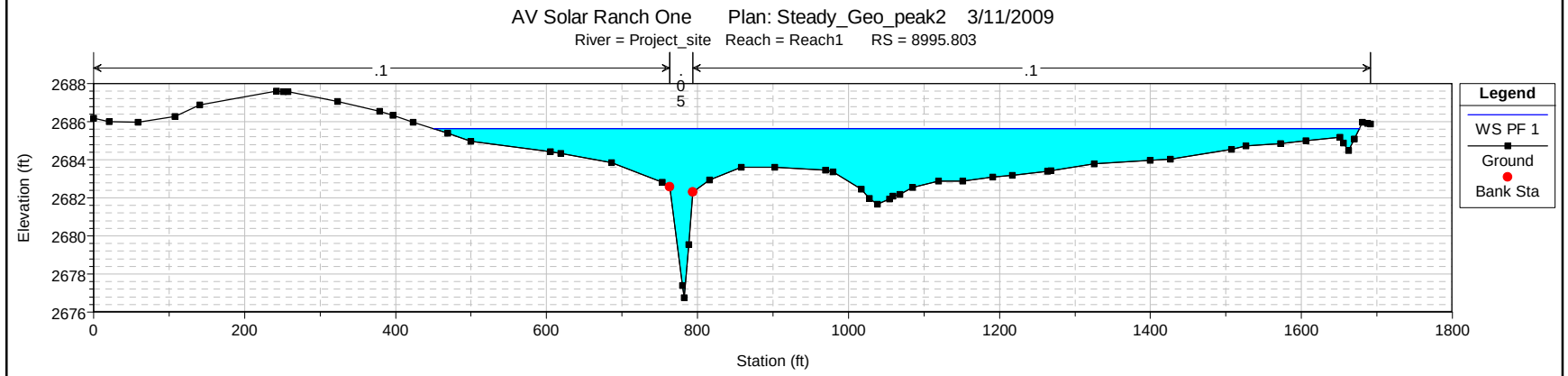

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 13176.88
.1
.1
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta
AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 12731.37
.1
.1
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta
AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 11941.50
.1
.1
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

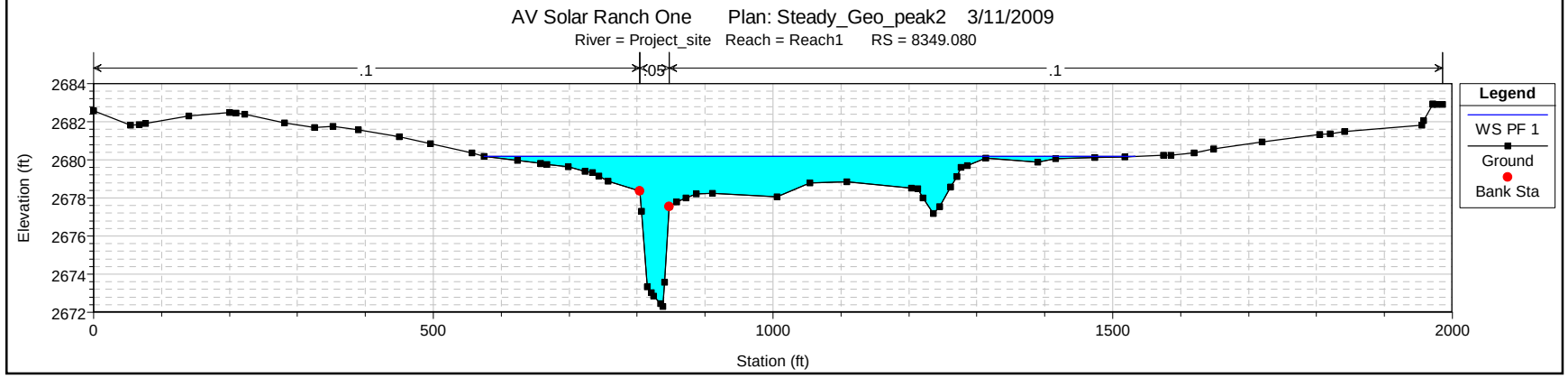

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 11439.52
.1
.1
.1
Elevation (ft)
2707
2706
2705
2704
2703
2702
2701
0
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

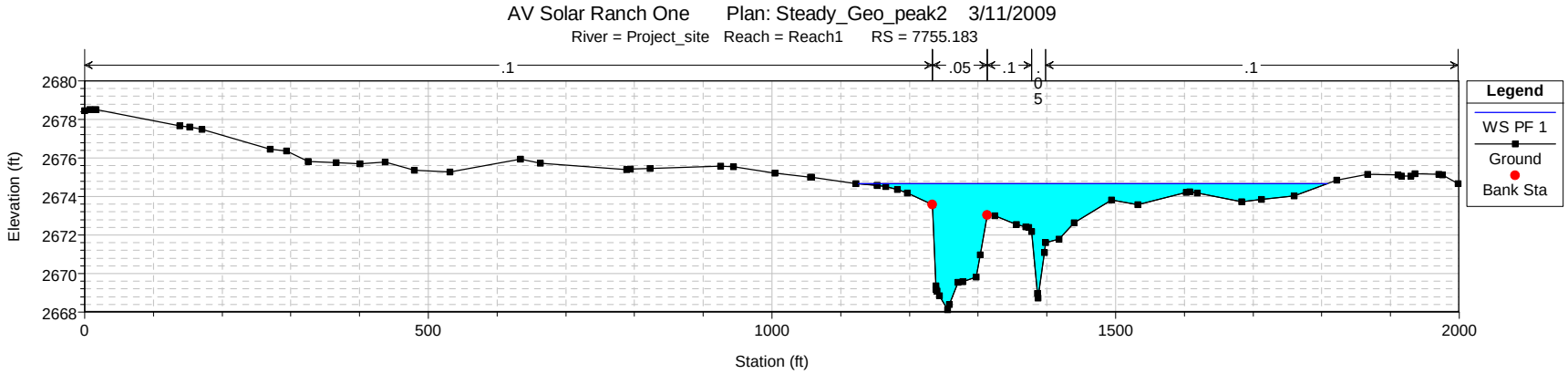

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 10634.06
.1
.1
.1
Elevation (ft)
2702
2700
2698
2696
2694
2692
2690
2688
2686
2684
0
500
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS PF 1
Ground
Levee
Bank Sta

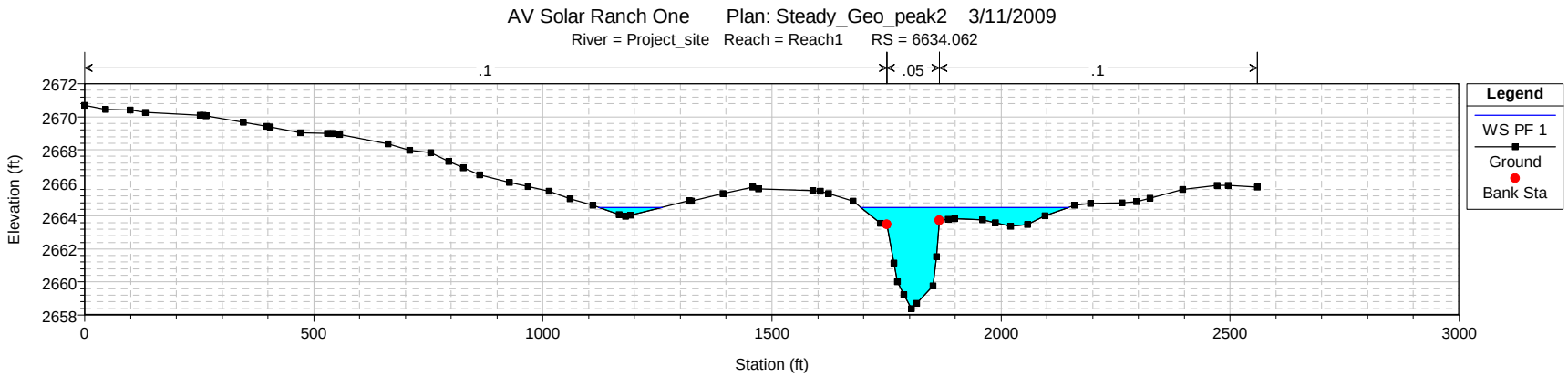

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 10215.68 170th Street
.1
.1
.1
Elevation (ft)
2704
2702
2700
2698
2696
2694
2692
2690
2688
2686
2684
0
500
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS PF 1
Ground
Levee
Bank Sta

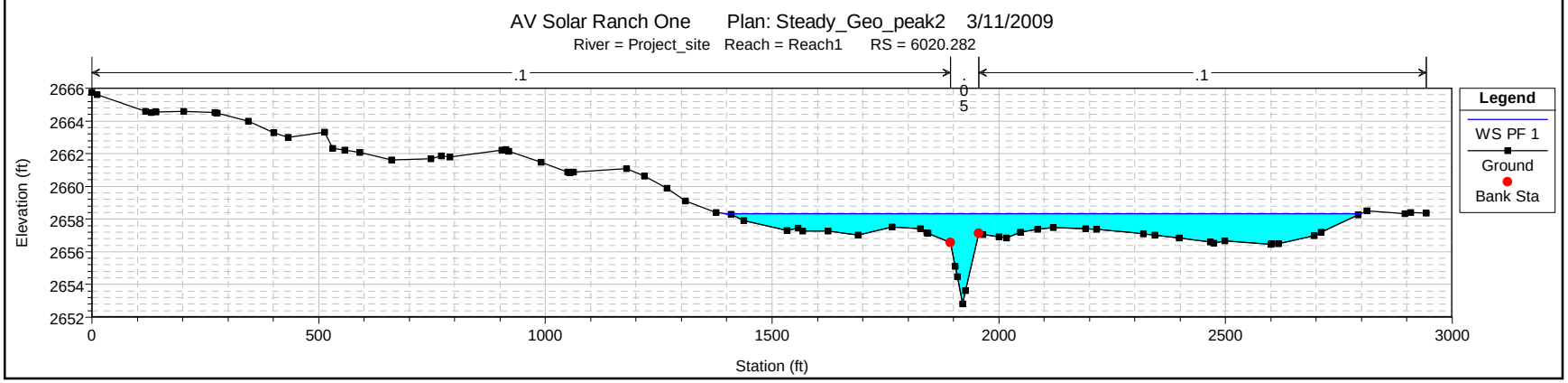

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 9804.462
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

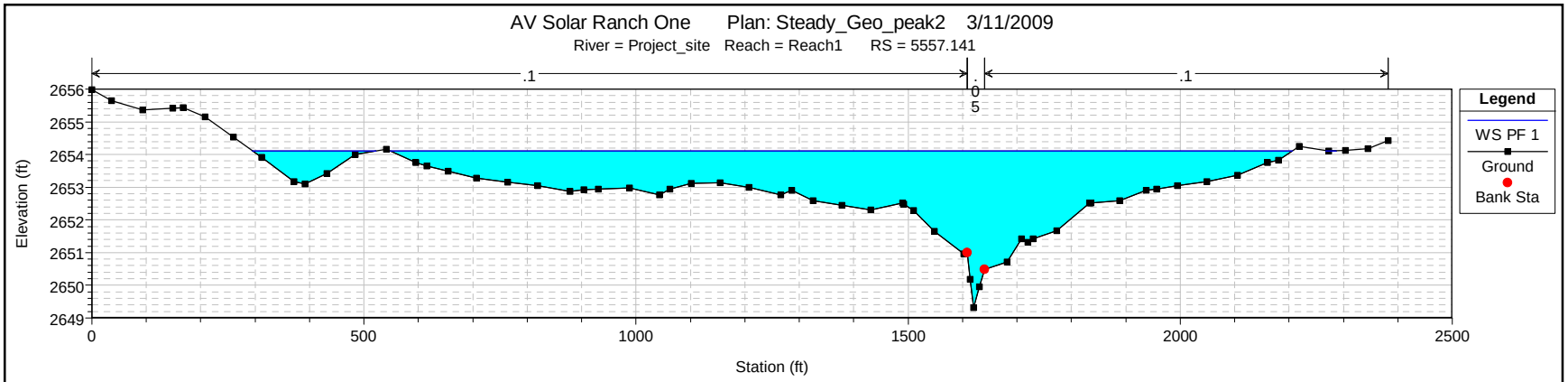

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 8995.803
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

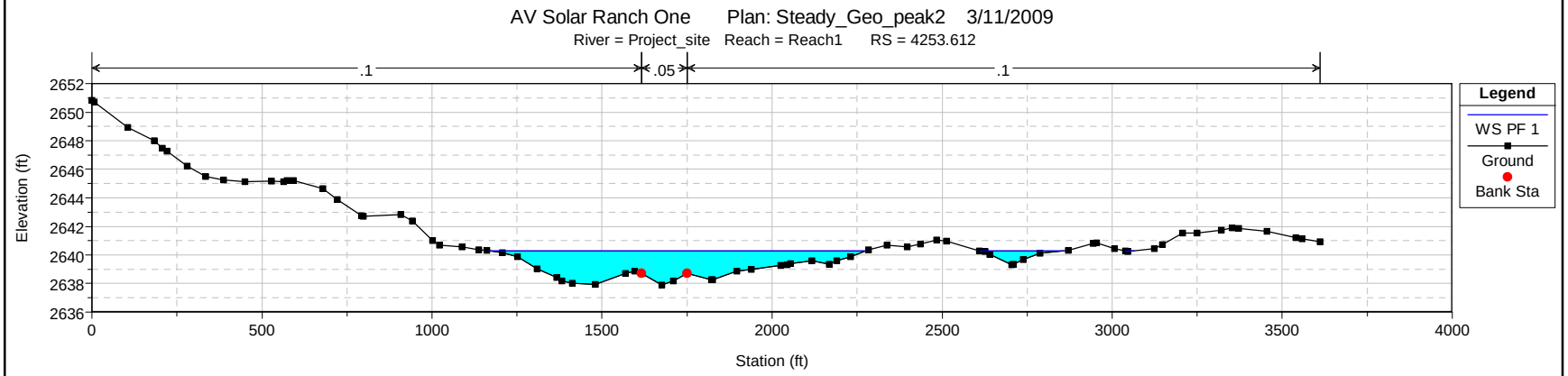

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 8349.080
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

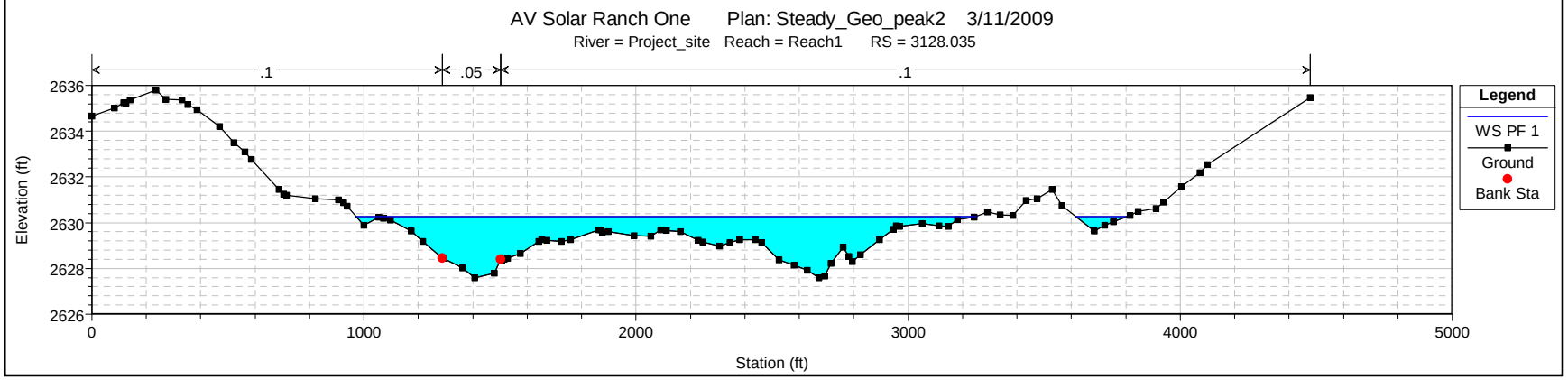

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 7755.183
.1
.05
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

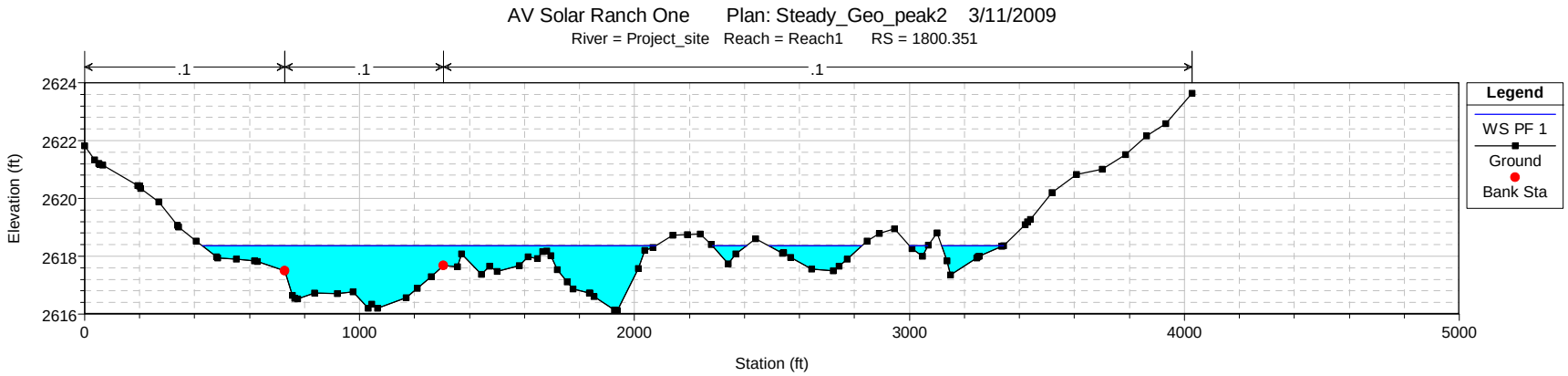

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 6634.062
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

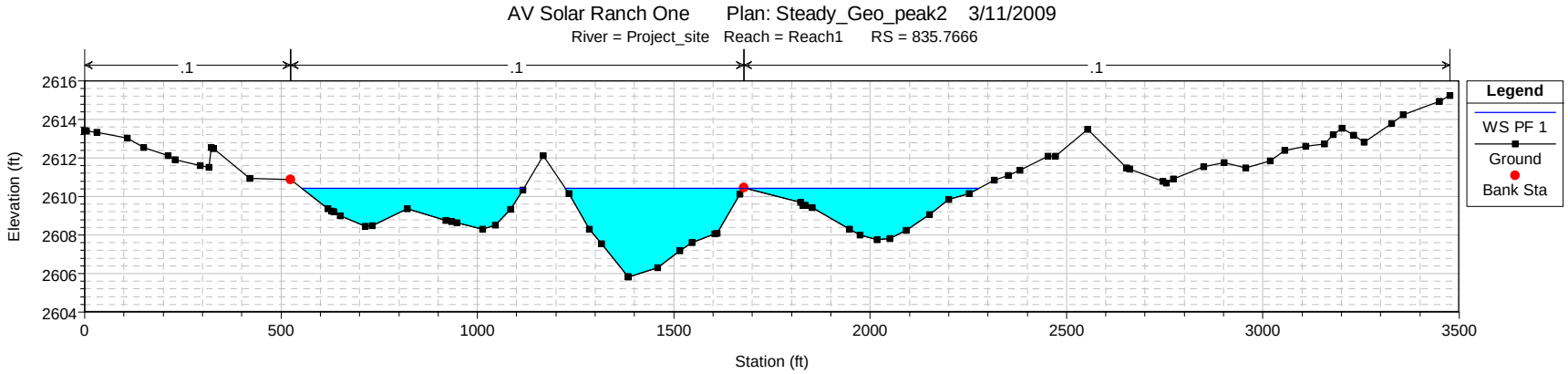

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 6020.282
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

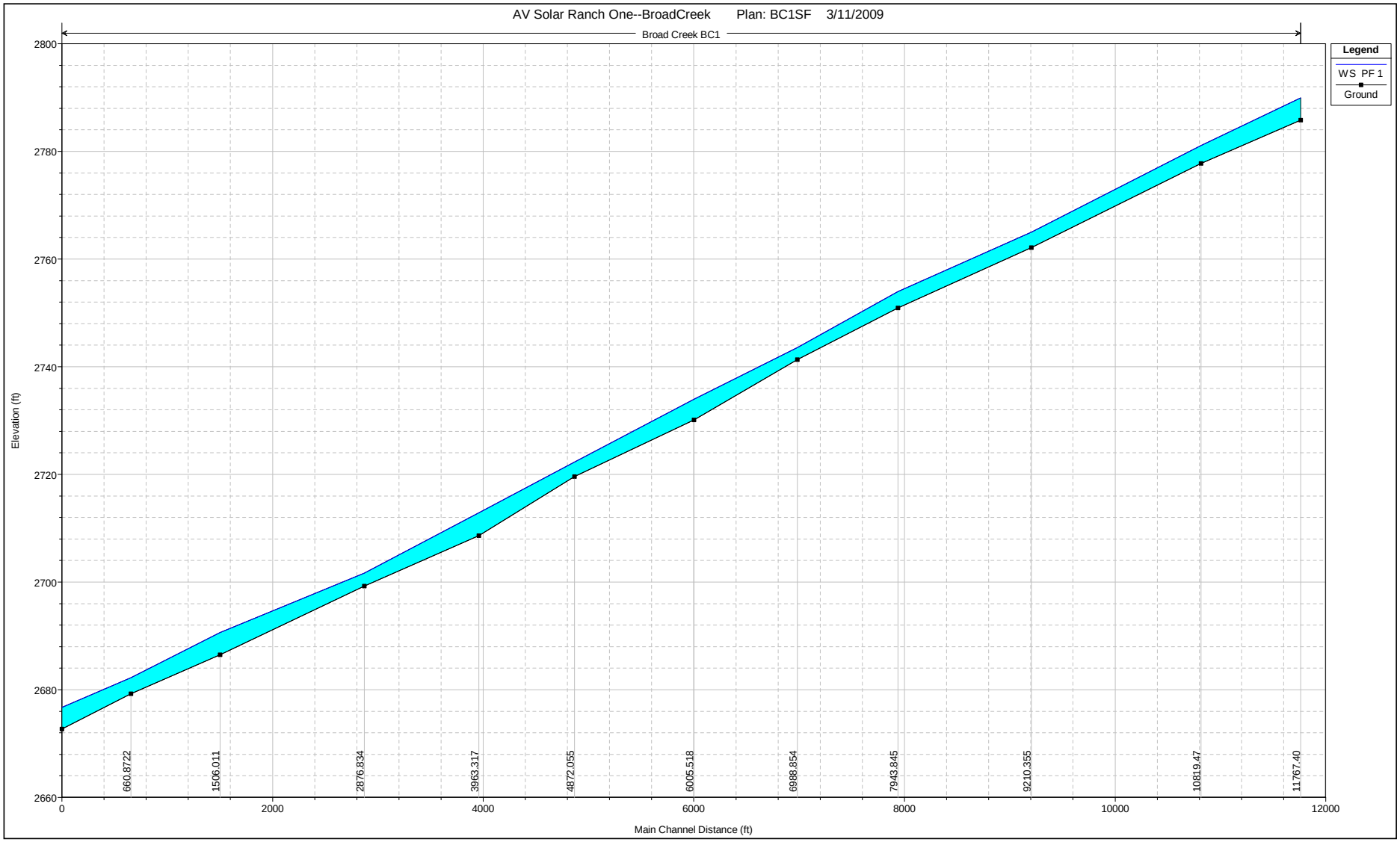

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 5557.141
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

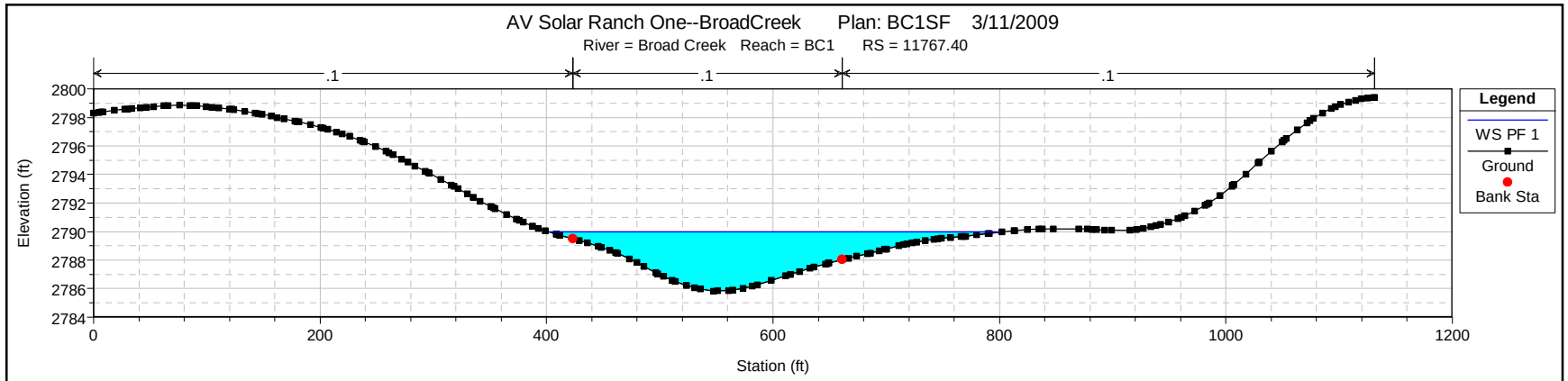

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 4253.612
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

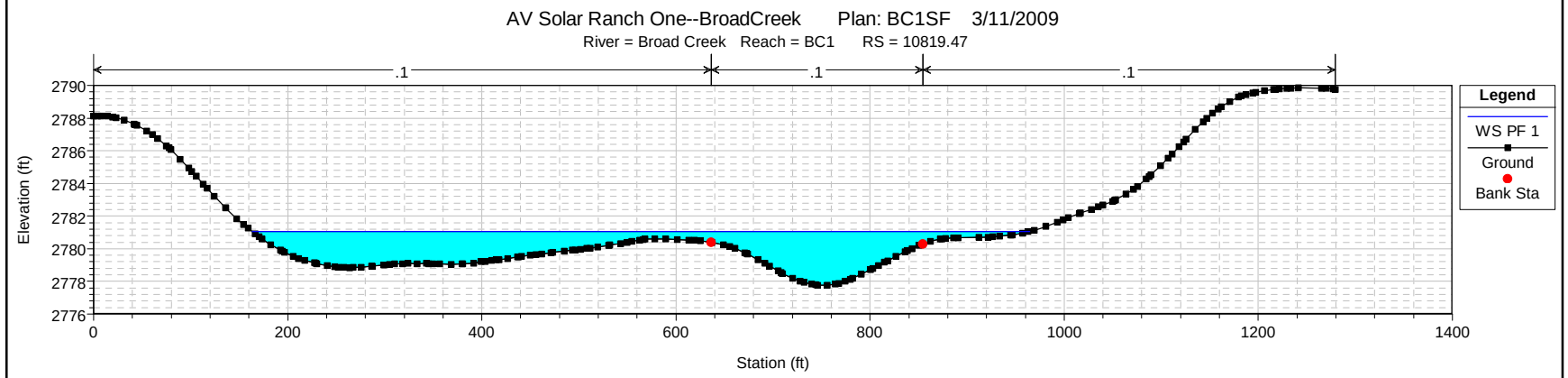

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 3128.035
.1
.05
.1
Elevation (ft)
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

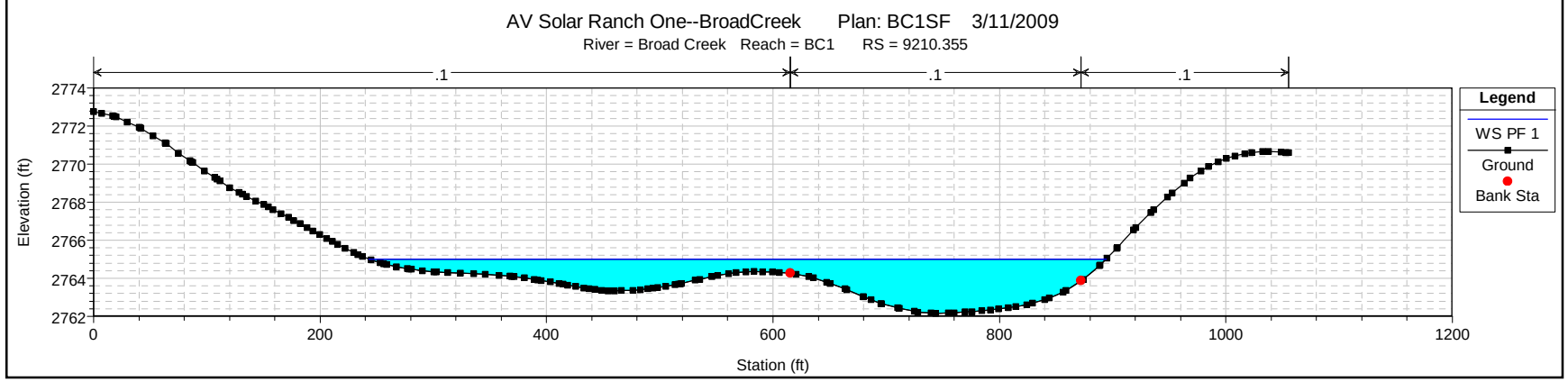

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 1800.351
.1
.1
.1
Elevation (ft)
2624
2622
2620
2618
2616
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

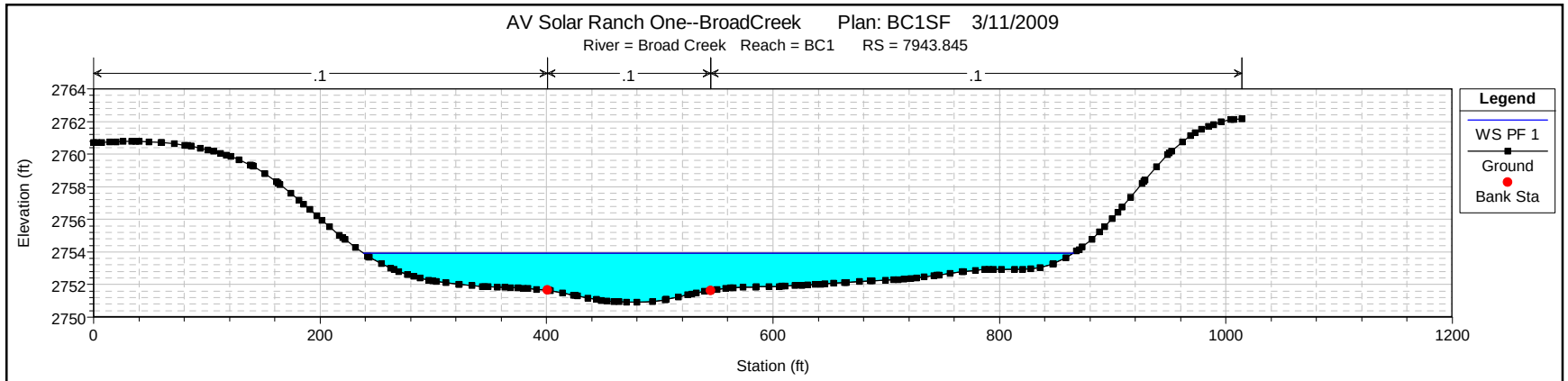

AV Solar Ranch One Plan: Steady_Geo_peak2 3/11/2009
River = Project_site Reach = Reach1 RS = 835.7666
.1
.1
.1
Elevation (ft)
2616
2614
2612
2610
2608
2606
2604
0
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

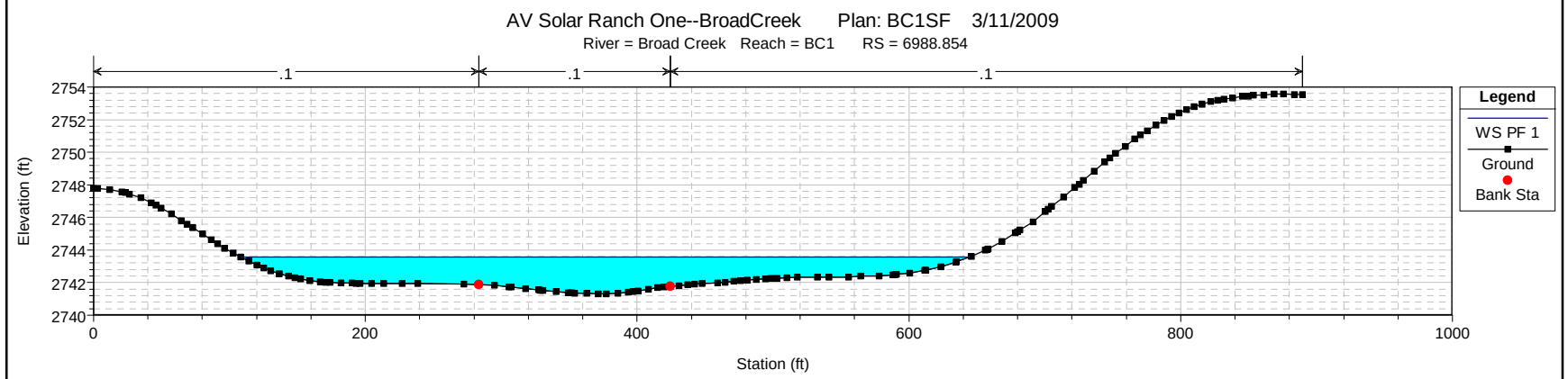

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
Broad Creek BC1
Legend
WS PF 1
Ground
Elevation (ft)
2800
2780
2760
2740
2720
2700
2680
2660
0
2000
4000
6000
8000
10000
12000
Main Channel Distance (ft)
660.8722
1506.011
2376.834
3963.317
4872.055
6005.518
6988.854
7943.845
9210.355
10819.47
11767.40

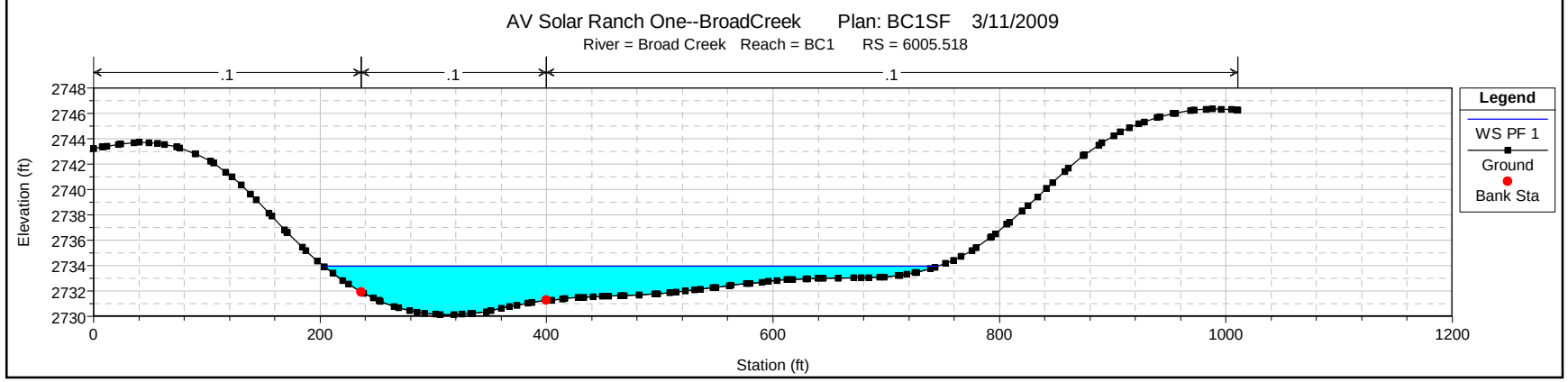

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 11767.40
.1
.1
.1
Elevation (ft)
2800
2798
2796
2794
2792
2790
2788
2786
2784
0
200
400
600
800
1000
1200
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

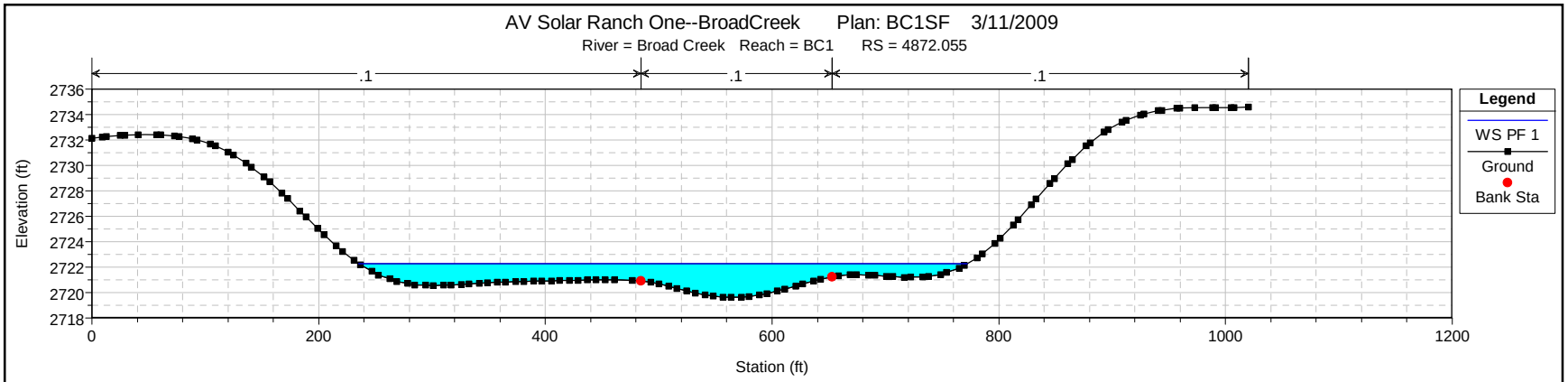

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 10819.47
.1
.1
.1
Elevation (ft)
2790
2788
2786
2784
2782
2780
2778
2776
0
200
400
600
800
1000
1200
1400
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

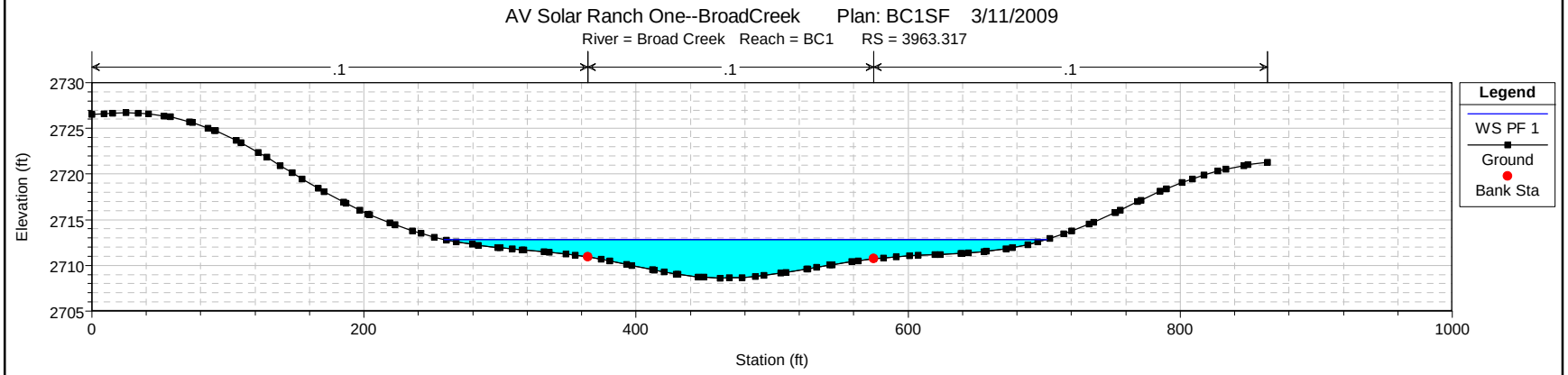

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 9210.355
.1
.1
.1
Elevation (ft)
2774
2772
2770
2768
2766
2764
2762
0
200
400
600
800
1000
1200
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

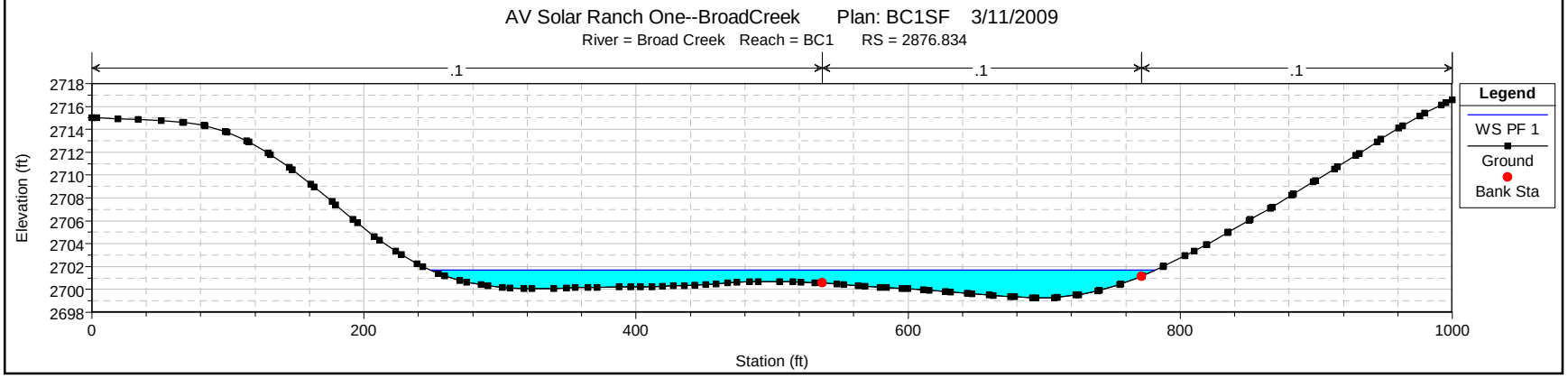

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 7943.845
.1
.1
.1
Elevation (ft)
2764
2762
2760
2758
2756
2754
2752
2750
0
200
400
600
800
1000
1200
Station (ft)
Legend
WS PF 1
Ground
Bank Sta

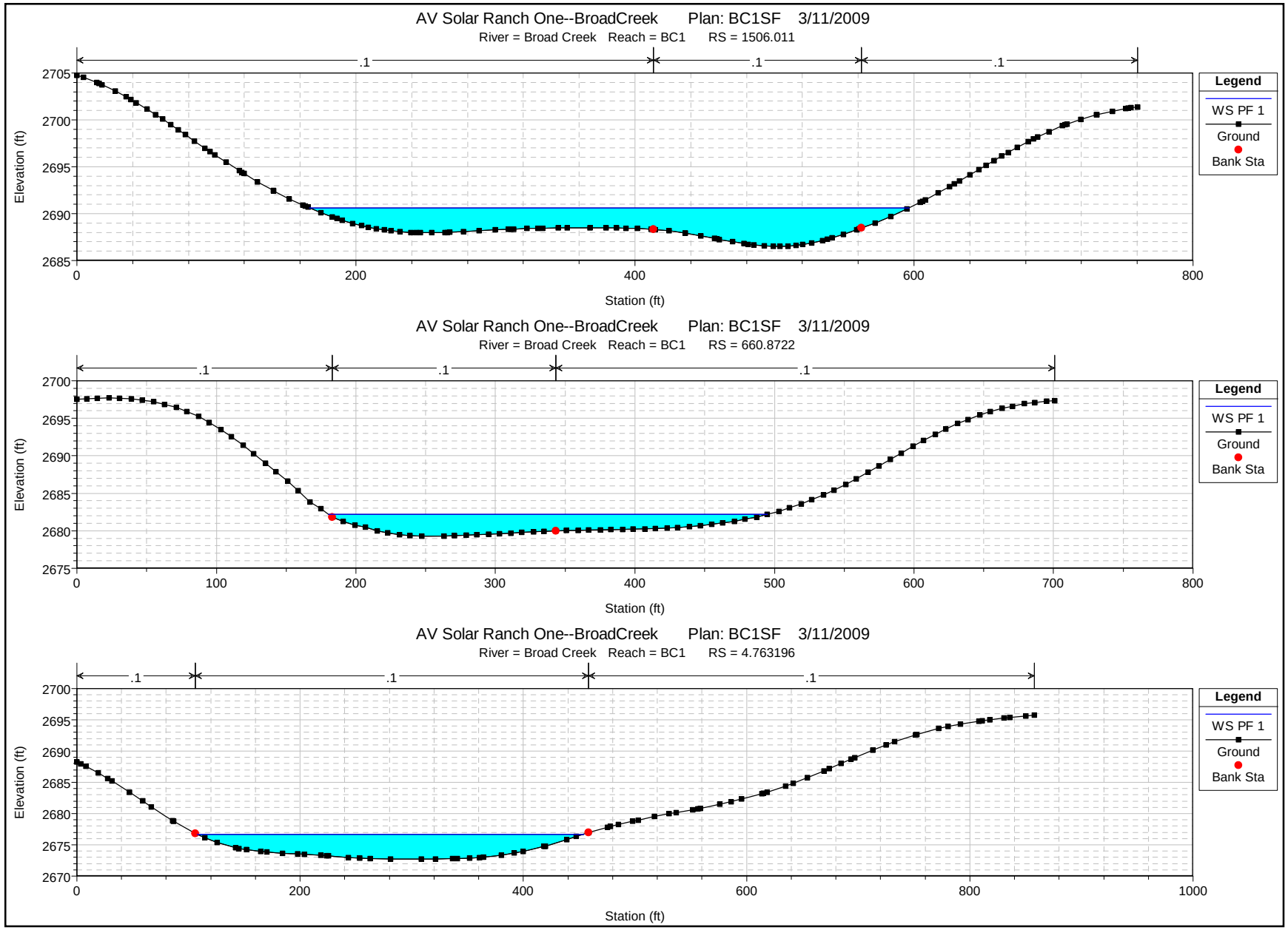

AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 6988.854
.1
.1
.1
Elevation (ft)
2754
2752
2750
2748
2746
2744
2742
2740
0
200
400
600
800
1000
Station (ft)
Legend
WS PF 1
Ground
Bank Sta


AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 6005.518
.1
.1
.1
Elevation (ft)
2748
2746
2744
2742
2740
2738
2736
2734
2732
2730
0
200
400
600
800
1000
1200
Station (ft)
Legend
WS PF 1
Ground
Bank Sta


AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 4872.055
.1
.1
.1
Elevation (ft)
2736
2734
2732
2730
2728
2726
2724
2722
2720
2718
0
200
400
600
800
1000
1200
Station (ft)
Legend
WS PF 1
Ground
Bank Sta


AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 3963.317
.1
.1
.1
Elevation (ft)
2730
2725
2720
2715
2710
2705
0
200
400
600
800
1000
Station (ft)
Legend
WS PF 1
Ground
Bank Sta


AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 2876.834
.1
.1
.1
Elevation (ft)
2718
2716
2714
2712
2710
2708
2706
2704
2702
2700
2698
0
200
400
600
800
1000
Station (ft)
Legend
WS PF 1
Ground
Bank Sta


AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 1506.011
.1
.1
.1
Elevation (ft)
2705
2700
2695
2690
2685
0
200
400
600
800
Station (ft)
Legend
WS PF 1
Ground
Bank Sta
AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 660.8722
.1
.1
.1
Elevation (ft)
2700
2695
2690
2685
2680
2675
0
100
200
300
400
500
600
700
800
Station (ft)
Legend
WS PF 1
Ground
Bank Sta
AV Solar Ranch One--BroadCreek Plan: BC1SF 3/11/2009
River = Broad Creek Reach = BC1 RS = 4.763196
.1
.1
.1
Elevation (ft)
2700
2695
2690
2685
2680
2675
2670
0
200
400
600
800
1000
Station (ft)
Legend
WS PF 1
Ground
Bank Sta