Mission Village

Recirculated Portions of EIR

Prepared for:

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

Prepared by:

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November 2016

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1.0 EXECUTIVE SUMMARY/INTRODUCTION

1. INTRODUCTION

This Executive Summary and Introduction to the Recirculated Portions of the EIR (Additional Analysis) summarizes the additional environmental analysis prepared for the Mission Village Project (Project), which is one of the five villages within the Newhall Ranch Specific Plan approved by the Board of Supervisors (Board) for the County of Los Angeles (County) in 2003. This additional analysis provides the required response to court directives in two related Newhall Ranch litigation matters, one involving the County of Los Angeles (County), known as the "Mission Village" litigation, and the other involving the California Department of Fish and Wildlife (CDFW), known as the "Center for Biological Diversity" or "CBD" litigation.[1]

The Mission Village litigation requires the County to revisit one legal issue in connection with the Board's May 2012 decision to approve the Project, namely, the previously-certified Mission Village Environmental Impact Report's (EIR) assessment of Project-related greenhouse gas (GHG) emissions. Accordingly, this additional analysis reevaluates the Project's GHG emissions, consistent with the California Environmental Quality Act (CEQA) and the Supreme Court's decision in the Center for Biological Diversity litigation.

As shown in **Section 2.1**, Global Climate Change and Greenhouse Gas Emissions, the recommended mitigation measures (**MV 4.23-1/2-1** through **MV 4.23-13/2-13**) will reduce, mitigate, and offset 100 percent of the Project's GHG emissions, allowing the Project to achieve net zero GHG emissions.[2] The recommended mitigation measures include, but are not limited to, the following:

- Achieving Zero Net Energy standards in residential and commercial development areas, as well as for private recreation centers and public facilities;
- Implementing a Transportation Demand Management (TDM) Plan to reduce vehicle miles traveled (VMT);
- Providing an electric vehicle charging station in every residence and offering zero emission vehicle purchase subsidies;

1 The Mission Village litigation is formally known as *California Native Plant Society v. County of Los Angeles* (Case No. B258090; Los Angeles County No. BS138001 (Mission Village litigation). The related CDFW-Newhall Ranch litigation is formally known as *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (*CBD*).

2 The GHG mitigation measures are identical to those recommended for system-wide implementation across the applicant's land holdings where development would be facilitated by the California Department of Fish and Wildlife's Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP) Project, including the Newhall Ranch Specific Plan, which encompasses Mission Village. Accordingly, the mitigation measures are preceded by a Mission Village-specific numerical prefix (i.e., MV 4.23-1), as well as a RMDP/SCP Project-specific prefix (i.e., 2-1).

- Installing electric vehicle charging stations in publicly accessible areas on the Project site, as well as in publicly accessible, off-site locations within the County of Los Angeles; and
- Funding a building retrofit program to improve the energy efficiency of existing buildings in disadvantaged communities within the County of Los Angeles; and
- Implementing the Newhall Ranch GHG Reduction Plan to fully offset all remaining Project-related GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or obtaining certified carbon credits.

As demonstrated in the analysis below, the recommended mitigation measures ensure the Project reduces, mitigates, and offsets 100 percent of the Project's GHG emissions – thereby achieving no net increase in GHG emissions.

In addition, as shown in **Section 2.2**, Take Avoidance of the Fully-Protected Unarmored Threespine Stickleback, the County, working with CDFW, previously adopted mitigation measures for the Project that allowed for the collection and relocation of unarmored threespine stickleback due to construction-related stream diversion activities in the Santa Clara River. After the County's approval of the Project, the Supreme Court, in its *CBD* decision, invalidated same or similar mitigation measures on grounds they violated Fish and Game Code Section 5515.

Unlike the *CBD* petitioners, the petitioners in the Mission Village litigation did not challenge any of the stickleback mitigation measures; and, as a result, that litigation did not contain any briefing or court rulings with regard to "take" of stickleback. Nonetheless, in light of the Supreme Court's *CBD* decision, the Mission Village mitigation measures MV 4.3-8 and MV 4.3-9 must be replaced or eliminated.[3] To this end, the County has independently reviewed and considered the applicant's proposed modified construction methods with regard to the Commerce Center Drive bridge and bank stabilization. Specifically, the proposed modified bridge construction methods involve installing bridge piers outside of the wetted channel of the Santa Clara River. The bank stabilization also would be installed without encroaching into the wetted channel of the River.

Based on the proposed modified construction methods identified in the County's take avoidance assessment, the Project, which includes the Commerce Center Drive bridge, will no longer require stream diversion or construction work in the wetted channel of the Santa Clara River. The proposed modified construction methods, combined with implementing recommended mitigation measures, will result in avoiding contact with waters within the River, and eliminating the need for the fish relocation-related mitigation measures. By avoiding construction in the wetted channel of the River, the applicant will not

3 Because Mission Village EIR mitigation measures MV 4.3-2, 4.3-10, 4.3-11, and 4.3-12 also contemplated Santa Clara River stream diversion and/or other river-related construction activities that could relocate and thereby affect unarmored threespine stickleback, those measures have been eliminated from the Mission Village EIR as well, as no longer necessary due to the applicant's proposed modified construction methods.

conduct stream diversion or dewatering activities that might lead to an impact to or "take" of the unarmored threespine stickleback.

Section 2.3, Errata to Mitigation Monitoring and Reporting Plan, reflects the additions or corrections to the County's previously adopted Mission Village Mitigation Monitoring and Reporting Plan (MMRP), which are proposed in response to the above-referenced litigation (see footnote 1, above).

a. EIR Background

In 2004, the County began preparation of the EIR for the Project, which would implement one of five villages within the Newhall Ranch Specific Plan, a large-scale mixed-use community located in unincorporated Santa Clarita Valley in northwestern Los Angeles County. The Newhall Land and Farming Company (applicant) is the Project applicant and landowner. The Project includes residential and commercial development on the applicant's land holdings.

The Project site is located within the geographic boundary of the Project applicant's Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP) Project, which covers certain aspects of resource management and development for the Project and other nearby developments.4 CDFW is the CEQA lead agency for the related RMDP/SCP Project.

In December 2010, CDFW certified the EIR portion of the joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS; SCH No. 2000011025) for the RMDP/SCP Project, and approved the requested state permits and authorizations for the RMDP/SCP Project (i.e., two Incidental Take Permits and a Master Streambed Alteration Agreement).

In October 2011, the County, as lead agency under CEQA, certified the Mission Village Final EIR and provisionally approved the Project.

In May 2012, the County's Board approved the CEQA-required findings addressing the Project's significant environmental impacts, mitigation, and alternatives; approved overriding considerations; and adopted

4 The RMDP is a conservation, mitigation, and permitting plan for the long-term management of sensitive biological resources and development-related infrastructure in the Santa Clara River and tributary drainages within the Newhall Ranch Specific Plan area and along the extension of Magic Mountain Parkway through the Project site. The SCP is a conservation and management plan to permanently protect and manage a system of preserves designed to maximize the long-term persistence of the San Fernando Valley spineflower, a federal candidate and state-listed endangered plant species. The SCP encompasses the Specific Plan area, as well as the Valencia Commerce Center and Entrada planning areas, in order to conduct conservation planning and preserve design on the Project applicant's land holdings in Los Angeles County that contain known spineflower populations.

various project approvals related to the Project, including approval of the Project's vesting tentative tract map and associated discretionary permits.

The Mission Village Final EIR evaluated the Project's GHG emissions and unarmored threespine stickleback impacts and mitigation measures. The EIR's primary findings with regard to each issue are summarized further below.

As of 2016, and in response to the Supreme Court's *CBD* decision, CDFW has prepared additional environmental analysis to address the related Newhall Ranch RMDP/SCP Project's GHG emissions and the stream diversion construction-related mitigation measures in CDFW's certified 2010 EIR (i.e., mitigation measures BIO-44 and BIO-46). In the event that CDFW certifies the additional environmental analysis for the RMDP/SCP Project, any applicable project design features, mitigation measures, or other conditions of approval would apply to the Project because it is a village within the Newhall Ranch Specific Plan area.

(1) Greenhouse Gas Emissions

In the Mission Village Final EIR, the County determined that the Project, with its mitigation and other regulatory measures, would not result in significant GHG emissions under CEQA. As the CEQA significance threshold, the Final EIR examined the Project for consistency with the statewide GHG emission reduction target, as set forth in the 2006 Global Warming Solutions Act (Assembly Bill 32 [AB 32]) and the California Air Resources Board's AB 32-mandated 2008 Climate Change Scoping Plan. Based on this assessment, the Final EIR concluded the Project's GHG emissions would result in less-than-significant impacts.

(2) Unarmored Threespine Stickleback

Based on the Mission Village Final EIR, the County found the Project's proposed construction-related stream diversion activities in the Santa Clara River, which runs through the Project site, could significantly impact the unarmored threespine stickleback. In response, the County adopted EIR mitigation measures to reduce impacts on aquatic species, including unarmored threespine stickleback, to less-than-significant levels. These mitigation measures, identified above, allowed biologists working under the direction of the U.S. Fish and Wildlife Service to collect and relocate any unarmored threespine stickleback that became stranded during construction-related stream diversion or dewatering activities.

2. LITIGATION AND SUMMARY OF COURT DECISIONS

In June 2012, five environmental organizations (collectively, petitioners) filed a lawsuit challenging the County's Mission Village Final EIR and permits under CEQA. In May 2014, the trial court denied petitioners' request to set aside the EIR and the County's project approvals. Petitioners appealed the trial court's judgment. On September 29, 2015, the Second District Court of Appeal, Division Five, affirmed

the trial court's judgment in full. In November 2015, petitioners filed a petition for review with the Supreme Court as to one issue, GHG, and requested that the Supreme Court grant review and suspend briefing until the Supreme Court resolved the same GHG issue pending in the related *CBD* action noted above. On December 9, 2015, the Supreme Court granted the petition for review and ordered that the Mission Village case be deferred pending disposition of the GHG issue in the related *CBD* action.

In March 2016, the Supreme Court transferred the Mission Village matter back to the Court of Appeal, with directions to vacate its decision and reconsider the case in light of the Supreme Court's GHG ruling in the related *CBD* action. Based on the Supreme Court's *CBD* decision, the Mission Village EIR's GHG analysis must be revisited to determine whether substantial evidence supports the EIR's less-than-significant findings with respect to the Project's GHG emissions. The County's new GHG analysis for the Project is summarized below.

a. Greenhouse Gas Emissions

In the *CBD* decision, the Supreme Court held that CDFW appropriately relied upon the Project's consistency with AB 32's reduction target in determining whether the Project's expected GHG emissions would be significant. The Court further held the Air Resources Board's business-as-usual approach, as set forth in the 2008 Scoping Plan, could be used as a tool to evaluate the significance of the Project's GHG emissions.

Having determined the EIR's methodology was permissible, the Supreme Court nonetheless concluded the EIR's significance determination was insufficient to support a finding of consistency with AB 32 because the EIR did not explain how Project-level reductions correlate with the Scoping Plan's statewide emission reductions. (*CBD*, *supra*, 62 Cal.4th at p. 229.)

The Court also found the EIR made unsupported assumptions regarding the statewide density averages used in the 2008 Scoping Plan, resulting in a potentially skewed emissions analysis.

In addition, the Court commented on the need "in the near future" to consider post-2020 emissions reduction targets if an EIR uses "a goal-consistency approach to CEQA significance." (*CBD*, *supra*, 62 Cal.4th at p. 223.) In doing so, the Court footnoted Executive Order No. S-3-05 (setting a long-term reduction target of 80% below 1990 levels by 2050) and Executive Order No. B-30-15 (setting a mid-term reduction target of 40% below 1990 levels by 2030).

Acknowledging the "substantial" burden on lead agencies faced with evaluating the cumulative significance of a land use project's GHG emissions, the Supreme Court also identified "potential pathways to compliance." (*CBD*, *supra*, 62 Cal.4th at p. 229-231.)

In light of the Supreme Court's *CBD* decision, the Mission Village EIR's GHG analysis must be revisited because the Mission Village EIR's analysis of the Project's GHG emissions was substantially identical to the RMDP/SCP EIR. Therefore, this additional analysis is needed to determine whether substantial evidence supports the Mission Village EIR's determination that the Project's GHG emissions will result in a less-than-significant impact.

The Mission Village GHG analysis is found in **Section 2.1**, Global Climate Change and Greenhouse Gas Emissions. As explained in **Section 2.1**, the recommended mitigation measures (**MV 4.23-1/2-1** through **MV 4.23-13/2-13**) will reduce, mitigate, and offset 100 percent of the Project's GHG emissions enabling the Project to achieve net zero GHG emissions.

b. Unarmored Threespine Stickleback

CDFW's Final EIR for the related RMDP/SCP project determined that the project's bridge construction and bank stabilization activities in the Santa Clara River could result in significant impacts to the unarmored threespine stickleback, a fully protected fish under Fish & Game Code Section 5515. To address these impacts, CDFW adopted mitigation measures BIO-44 and BIO-46, which would have allowed biologists working under the direction of the USFWS to collect and relocate any unarmored threespine stickleback that might become stranded during stream diversion and dewatering associated with construction of bridges and bank stabilization facilities. As stated above, the County, when approving the Project, adopted the same or similar mitigation measures to avoid impacts to unarmored threespine stickleback.

Subsequently, the Supreme Court in *CBD* held that RMDP/SCP project mitigation measures BIO-44 and BIO-46 violate the Fish & Game Code Section 5515 prohibition against authorizing "take" or possession of fully protected fish. (*CBD*, *supra*, 62 Cal.4th at pp. 231-237.) Thus, the Supreme Court's decision invalidated RMDP/SCP mitigation measures BIO-44 and BIO-46. As part of its effort to comply with the Supreme Court's *CBD* decision, CDFW has completed a take avoidance assessment for the unarmored threespine stickleback. CDFW's take avoidance assessment, which includes the same proposed modified construction methods and mitigation measures as presented in this analysis, will eliminate construction-related contact with the wetted channel of the Santa Clara River, thereby avoiding impacts to or "take" of unarmored threespine stickleback.

Because County-adopted Mission Village mitigation measures MV 4.3-8 and MV 4.3-9 are substantially similar to CDFW mitigation measures BIO-44 and BIO-46, they must be replaced or eliminated. To this end, the County has prepared a take avoidance assessment, including the proposed modified construction methods and mitigation measures, with regard to the Commerce Center Drive bridge and bank stabilization. The County also has directed that the previously-adopted Mission Village Mitigation

Monitoring and Reporting Plan (MMRP) be revised to eliminate the invalidated mitigation measures, and to add new project design features and mitigation measures applicable to the Project.

The Mission Village take avoidance assessment is found in **Section 2.2**, Take Avoidance of the Fully-Protected Unarmored Threespine Stickleback. As explained in **Section 2.2**, the recommended project design features and mitigation measures will avoid impacts to the unarmored threespine stickleback.

3. PROJECT DESCRIPTION AND PROJECT APPROVALS SUMMARY

Mission Village is one of five villages within the Newhall Ranch Specific Plan, a large-scale mixed-used community located in unincorporated Santa Clarita Valley in northwestern Los Angeles County. The Los Angeles County Board of Supervisors approved Newhall Ranch in 2003. The Specific Plan guides the long-term development and conservation of the 11,999-acre Newhall Ranch community, as approved to include a broad range of residential, mixed-use, commercial/retail uses within five villages. The Project site, inclusive of the tract map and off-site improvements, is situated on approximately 1,860 acres within the Specific Plan area.

As approved by the County Board of Supervisors on May 15, 2012, Mission Village would accommodate 4,055 homes (specifically, 351 single-family and 3,704 multi-family homes, including 351 Continued Care Retirement Community (CCRC) homes, 459 age-qualified homes and 300 affordable housing units) and 1,555,100 square feet of commercial (retail/office) uses. The Project also would include a 9.5-acre elementary school, 3.3-acre library, 1.5-acre fire station, 1.2-acre bus transfer station, and approximately 693 acres of open space (including parks, recreation areas, Santa Clara River area, and three spineflower preserves located on 85.8 acres). Mission Village would further include supporting facilities and infrastructure, including roads, the Commerce Center Drive Bridge, trails, drainage improvements, flood protection, potable and recycled water systems, a sanitary sewer system, and dry utilities systems.

To facilitate development of the Mission Village tract map site (Vesting Tentative Tract Map 61105), several Project-related improvements are proposed for construction outside the tract map boundary. These off-site, Project-related improvements include a utility corridor, the extension of Magic Mountain Parkway roadway and related improvements, a water quality basin, three water tanks, a Southern California Edison electrical substation, and two debris basins. Additional off-site development would include work associated with the Lion Canyon drainage, grading associated with construction of the northerly extension of Westridge Parkway and the southerly extension of Commerce Center Drive, and miscellaneous grading to tie proposed grades into natural grades. The Project's development/grading footprint is 1,134.6 acres, and the total amount of grading (for the tract map and off-site improvements) is estimated at 28.9 million cubic yards.

As background, the Mission Village prior draft EIR was initially circulated for public comment for a period of 45 days from October 8, 2010 to November 21, 2010, which was extended to January 4, 2011, for a total of an 89-day public comment period.

The County's Regional Planning Commission (Commission) conducted duly-noticed public hearings on the project and EIR on November 10, 2010, March 16, 2011 (a continued hearing), and May 18, 2011. The Mission Village Final EIR was completed in May 2011, which included the Draft EIR, all comments received on the Draft EIR and responses to those comments, technical appendices, an errata, revised Draft EIR pages, and a mitigation monitoring plan.

On May 18, 2011, the Commission closed its public hearing, certified the Final EIR, adopted the required CEQA Findings and overriding considerations, approved the conditional use permits, the substantial conformance review, the oak tree permit, the parking permit, and vesting tentative tract map with findings and conditions, and approved the Mitigation Monitoring Plan.

On May 26, 2011, following the Commission's project approvals, two environmental organizations appealed the Commission's decision to the Board of Supervisors (Board).

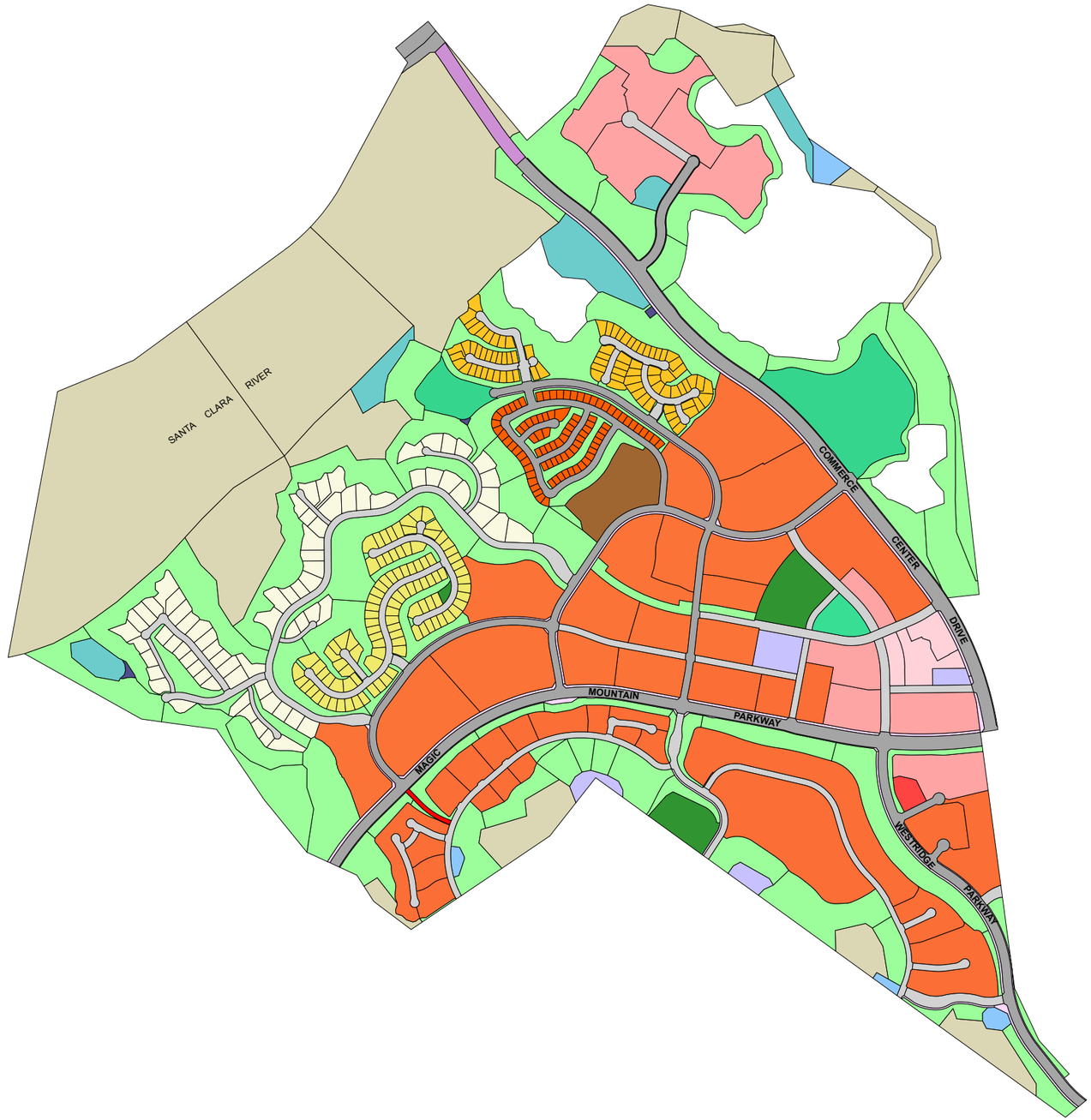
On October 25, 2011, following further responses to public comments, the Board conducted its duly-noticed public hearing. At the completion of the hearing, the Board certified the Final EIR and indicated its intent to approve the project permits and vesting map and instructed County Counsel to prepare findings and conditions of approval.

On May 15, 2012, after taking public testimony, the Board rejected the appeal and adopted the following Project approvals: (a) Vesting Tentative Tract Map 61105, (b) Significant Ecological Area (SEA) Conditional Use Permit No. 2005-00080, (c) Conditional Use Permit 2005-00081, (d) Oak Tree Permit Nos. 2005-00032 (project site) and 2005-00043 (off-site extension of Magic Mountain Parkway), (e) Parking Permit No. 2005-00011, and (f) Substantial Conformance No. 2010-00001 for grading and hillside management guidelines. There are no proposed changes with regard to the Project's discretionary approvals.

Figure 1.0-1, Mission Village Land Use Plan, depicts the Mission Village land use plan approved by the County Board of Supervisors in May 2012. The land use plan evaluated in this analysis is the same plan approved in May 2012. **Table 1.0-1**, Mission Village Tract Map Statistical Summary, identifies the same Mission Village individual land use types; the corresponding acreages; and the total units or square footage. The summary also presents the same Project data approved by the Board in May 2012. This data provides the basis for the analysis of GHG emissions associated with the Project.

As explained in this environmental analysis, the Project would include additional mitigation measures that would reduce, mitigate, and offset 100 percent of the Project's GHG emissions, allowing it to achieve net zero GHG emissions. Additionally, with respect to the Commerce Center Drive bridge across the Santa Clara River, the Project would implement construction methods, project design features, and mitigation measures to eliminate the need for the prior EIR's mitigation measures MV 4.3-8 and MV 4.3-9 (and other related measures), consistent with the County's take avoidance assessment (see **Section 2.2**). Specifically, the Project would not require construction work or stream diversion in the wetted channel of the Santa Clara River during bridge construction. The proposed modified construction methods also would include project design features and mitigation measures that avoid any potential for the need to relocate stranded fish species, including the unarmored threespine stickleback. For those reasons, MV 4.3-8 and MV 4.3-9 (and other related measures) would be eliminated from the Project's Mitigation Monitoring and Reporting Plan as no longer necessary. Except for the modified construction bridge methods, project design features, and mitigation measures, the Project is unchanged from that approved by the County Board of Supervisors in May 2012.

As noted above, this analysis is limited to correcting the greenhouse gas emissions analysis (**Section 2.1**, Global Climate Change and Greenhouse Gas Emissions), demonstrating take avoidance of unarmored threespine stickleback (**Section 2.2,** Take Avoidance of the Fully Protected Unarmored Threespine Stickleback), and revising the mitigation monitoring plan (**Section 2.3**, Errata to Mitigation Monitoring and Reporting Plan). This corrective action is in response to court directives in the above-referenced litigation.



Legend

- S.F.-DETACHED (AVG. 1.0 AC)
- SFD-6600
- SFD-5500
- SFD-4000
- M.F.-CONDO
- M.F.-CONDO-AGE QUALIFIED
- M.F.-APT/CONDO
- M.F.-CONDO-CONTINUED CARE RETIREMENT COMM
- COMM-BUSINESS PARK
- MIXED USE-COMMERCIAL
- MIXED USE-RESIDENTIAL
- P.F.-DEBRIS BASIN
- P.F.-WATER QUALITY
- SEWER LIFT STATION
- O.S.-LDZ
- P.F.-TRANSIT
- P.F.-WATER FACILITY
- P.F.-WATER TANK
- OPEN SPACE
- O.S.-NAT.
- LIBRARY
- RECREATION
- RECREATION CENTER
- PARK
- PARK-PRIVATE
- SCHOOL
- BRIDGE
- Fire Access Road
- FIRE STATION
- Public Road
- Road-Pvt Dr
- Road-Pvt & Fut St
- Road-Fut St

N

0 600 1200 2400

APPROXIMATE SCALE IN MILES

SOURCE: Hunsaker & Associates - 2016

FIGURE **1.0-1**

Meridian Consultants

Mission Village Land Use Plan

080-007-16

Table 1.0-1
Mission Village Tract Map Statistical Summary

Land Use	Area (gross acres)	Total Units or Square Footage
Residential		
Single-Family	88.8	351 du
Multi-Family	211.6	3,704 du
Apartments/Condominiums	22.1	
Continued Care Retirement Community	13.6	
Subtotal (Residential)	336.1	4,055 du
Mixed-Use/Commercial	57.4	1,555,100 sf
Elementary School	9.5	Not Applicable
Open Space		Not Applicable
River	212.6	
Un-Graded Lots	65.0	
Graded Lots	287.8	
Public Park (active)	26.8	
Private Recreation	14.7	
Spineflower Preserves	85.8	
Subtotal (Open Space)	692.7	
Library	3.3	
Fire Station	1.5	
Bus Transfer Station	1.2	
Utilities	26.0	
Roads	134.1	
TOTAL	**1,261.8**	**4,055 du / 1,555,100 sf**

4. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY

This section summarizes the Project impacts and mitigation with regard to (i) global climate change/GHG emissions, and (ii) take avoidance of the fully-protected unarmored threespine stickleback. **Table 1.0-2**, Summary of Significant Impacts, Project Design Features, and Mitigation Measures, provides this pertinent summary.

5. DOCUMENT ORGANIZATION

This additional environmental analysis is organized in the following sections:

Section 1.0, Executive Summary/Introduction. This section addresses the additional environmental analysis required for the Project in response to the above-referenced litigation. The section describes the corrective action to be taken in response to the litigation; summarizes the Project description and related Project approvals; and contains a significant impacts and mitigation summary.

Section 2.0, Additional Environmental Analysis. In response to the above-referenced litigation, this section contains additional analysis of the Project's GHG emissions and its significant potential impacts to, and mitigation for, the unarmored threespine stickleback, as well as an errata to the previously adopted Mission Village MMRP.

Section 3.0, List of Preparers and Agencies/Organizations Consulted. This section presents a list of the preparers of this additional analysis, along with the identification of agencies and organizations consulted.

Section 4.0, References Cited. This section lists references used or cited in preparing this additional analysis.

This additional analysis also includes tables, figures, and technical appendices supporting the analysis provided herein.

6. ENVIRONMENTAL REVIEW PROCESS

The environmental review process for the Project's Recirculated Portions of the EIR will include procedural steps described below.

Public Notice/Public Comment. The Los Angeles County Department of Regional Planning, acting pursuant to the County Environmental Guidelines, has directed and supervised completion of this additional environmental analysis. The Department of Regional Planning also has determined that the size and scale of the additional analysis warrants a 60-day public comment period.

Review Locations. To ensure public access to this additional analysis, a copy of the Recirculated Portions of the EIR, including appendices, is available for review Monday through Thursday, 7:30 a.m. to 5:30 p.m. at:

Los Angeles County
Department of Regional Planning
320 West Temple Street, 13th Floor, Room 1362
Los Angeles, California 90012
Attention: Samuel Dea

A copy of the Recirculated Portions of the EIR also will be available for public review at the following County libraries:

- Valencia Library, 23743 W. Valencia Boulevard, Santa Clarita
- Castaic Library, 27971 Sloan Canyon Road, Castaic
- Stevenson Ranch Library, 25950 The Old Road, Stevenson Ranch
- Old Town Newhall Library, 24500 Main Street, Santa Clarita
- Canyon Country Jo Anne Darcy Library, 18601 Soledad Canyon Road, Santa Clarita

An electronic version of the Recirculated Portions of the EIR also is available on the Department of Regional Planning's website: http://planning.lacounty.gov/case/view/mvdaa.

Please submit written comments concerning the adequacy of the environmental issues addressed in the Recirculated Portions of the EIR to Mr. Samuel Dea of the Department of Regional Planning at the above address. Written comments also may be faxed to (213) 626-0434, or sent by e-mail to specialprojects@planning.lacounty.gov.

Public Meeting. A local public meeting to receive comments concerning environmental issues addressed in the Recirculated Portions of the EIR has been scheduled in the Santa Clarita Valley for January 12, 2017, starting at 6:00 p.m. and ending after the last testifier or 9:00 p.m., whichever comes first, at Rancho Pico Junior High School, 26250 W. Valencia Boulevard, Westridge, California 91381. Oral comments made at the public meeting concerning environmental issues addressed in the Recirculated Portions of the EIR will be received and transcribed so written responses can be provided as part of the Recirculated Portions of the Final EIR.

Responses to Comments/Recirculated Portions of the Final EIR. Following the 60-day public comment period for the Recirculated Portions of the EIR, the County will oversee completion of responses to comments concerning environmental issues addressed in the Recirculated Portions of the EIR. The

responses to comments, together with the additional analysis, and appendix materials will be compiled into the Recirculated Portions of the Final EIR.

Certification/Project Consideration. The County Board of Supervisors will review and consider the Recirculated Portions of the Final EIR at a public hearing. The Board of Supervisors' review will be limited to only the Recirculated Portions of the EIR, specifically, the corrected greenhouse gas analysis (**Section 2.1**), the take avoidance assessment (**Section 2.2**), and the errata to the MMRP (**Section 2.3**) — all of which is in response to court directives issued in the above-referenced litigation. If the Recirculated Portions of the Final EIR reflect the County's independent judgment, the Board will certify the adequacy of the Recirculated Portions of the Final EIR (together with the previously certified Mission Village EIR). The Board's decisions will be both final and accompanied by resolutions, findings, conditions, CEQA findings, and revised mitigation monitoring and reporting plan.

Table 1.0-2
Summary of Significant Impacts, Project Design Features, and Mitigation Measures

Environmental Issue Area	Summary of Significant Impact	Project Design Features and Mitigation Measures
Section 2.1, Global Climate Change and Greenhouse Gas Emissions		
Significant Unavoidable Impacts		
None		
Impacts Reduced to a Less-Than-Significant Level		
Global Climate Change/GHG Emissions. This section has been revised in response to the Supreme Court's *CBD* decision, and based on additional independent review by the County acting as lead agency. The section replaces and supersedes the prior Section 4.23, Global Climate Change, of the County's previously certified Mission Village EIR.	Without mitigation, the Project would increase GHG emissions as compared to the existing environmental setting, which could result in a potentially significant impact to global climate change. However, with implementation of the thirteen (13) recommended mitigation measures, the Project would cause *no net increase* in GHG emissions. Because the Project, as mitigated, would result in no net increase in the GHG emissions level, the Project would not have a significant impact on global climate change. The Project's achievement of a net zero emissions level further ensures that the Project would not conflict with statewide targets for the reduction of GHG emissions, the County's Community Climate Action Plan, and the Southern California Association of Governments' Sustainable Communities Strategy plans.	**MV 4.23-1/2-1:** Prior to the issuance of residential building permits, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the residential development within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or greenhouse gas emissions savings. A ZNE Report may, but is not required to: • Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and commercial buildings within a neighborhood/community, or a subset thereof. • Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or

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		more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE. • Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-2/2-2:** Prior to the issuance of building permits for commercial development and private recreation centers, and prior to the commencement of construction for the public facilities, respectively, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the commercial development, private recreation centers, and public facilities within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations have been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of

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		energy efficiency, renewable energy generation or GHG gas emissions savings. ("Commercial development" includes retail, light industrial, office, hotel, and mixed-use buildings. "Public facilities" are fire stations, libraries, and elementary, middle/junior high and high schools.) A ZNE Report may, but is not required to: • Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and non-residential buildings within a neighborhood/community, or a subset thereof. • Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, short falls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE. • Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings. *(This mitigation measure applies to Mission Village without change.)*

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		MV 4.23-3/2-3: Prior to the issuance of private recreation center building permits, the project applicant or its designee shall submit swimming pool heating design plans to Los Angeles County for review and approval. The design plans shall demonstrate that all swimming pools located at private recreation centers on the RMDP/SCP project site have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-4/2-4:** Prior to the issuance of residential building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County for review and approval, which demonstrate that each residence within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations shall be equipped with a minimum of one single-port electric vehicle (EV) charging station. Each charging station shall achieve a similar or better functionality as a Level 2 charging station. Additionally, prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall establish and fund a dedicated account for the provision of subsidies for the purchase of ZEVs, as defined by ARB. The project

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		applicant or its designee shall provide proof of the account's establishment and funding to Los Angeles County. The dedicated account shall be incrementally funded, for each village-level project, in an amount that equals the provision of a $1,000 subsidy per residence – on a first-come, first-served basis – for 50 percent of the village's total residences subject to application of Title 24, Part 6, of the California Code of Regulations. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-5/2-5:** Prior to the issuance of commercial building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County, which demonstrate that the parking areas for commercial buildings on the RMDP/SCP project site shall be equipped with EV charging stations that provide charging opportunities to 7.5 percent of the total number of required parking spaces. ("Commercial buildings" include retail, light industrial, office, hotel, and mixed-use buildings.) The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station. In the event that the installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging

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		stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-6/2-6:** The project applicant-submitted Newhall Ranch Transportation Demand Management Plan (TDM Plan), located in Technical Report Appendix E contained in AEA Appendix 1, shall be implemented to reduce VMT resulting from project build out with oversight from Los Angeles County. The TDM Plan is designed to influence the transportation choices of residents, students, employees, and visitors, and serves to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, expanded transit opportunities, bikeshare and carshare programs, technology-based programs, and other innovative means. Implementation of relevant elements of the TDM Plan will be included as a condition of approval by Los Angeles County when approving tentative subdivision maps for land developments that are part of the project. Accordingly, the TDM Plan identifies key implementation actions that are critical to the effectiveness of the VMT-reducing strategies, as well as timeline and phasing

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		requirements, monitoring standards, and performance metrics and targets tailored to each of the strategies. In accordance with the TDM Plan, a non-profit Transportation Management Organization (TMO) or equivalent management entity shall be established to provide the services required, as applicable. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-7/2-7:** Prior to the issuance of traffic signal permits, the project applicant or its designee shall work with Los Angeles County and the California Department of Transportation (Caltrans), as applicable, to facilitate traffic signal coordination along: • State Route 126 from the Los Angeles County line to the Interstate 5 north-bound ramps; • Chiquito Canyon Road, Long Canyon Road, and Valencia Boulevard within the RMDP/SCP project site; • Magic Mountain Parkway from Long Canyon Road to the Interstate 5 north-bound ramps; and • Commerce Center Drive from Franklin Parkway to Magic Mountain Parkway. To effectuate the signal synchronization and specifically the operational and timing adjustments needed at affected traffic signals, the project applicant or its designee shall submit traffic signal plans for review and

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		approval, and/or pay needed fees as determined by Los Angeles County or Caltrans, as applicable. A majority of the signals that will be synchronized will be new signals constructed/installed by the project. Thus, for these signals, the project will provide the necessary equipment at the signal controller cabinet, as well as within the new roadways themselves, to enable and facilitate synchronization. The project is responsible for paying 100 percent of the applicable fee amount for the signal synchronization work, with assurance that the necessary funding will be available to fully implement this measure. *(For purposes of the Mission Village Project, the following roadway segments shall be subject to traffic signal synchronization improvements: (a) Commerce Center Drive from SR-126 to Magic Mountain Parkway; and, (b) Magic Mountain Parkway (within the Mission Village boundary).)* **MV 4.23-8/2-8:** Consistent with the parameters of the Newhall Ranch TDM Plan, the project applicant or its designee shall provide Los Angeles County with proof that funding has been provided for the purchase, operation and maintenance of electric school buses in furtherance of the school bus program identified in the project's TDM Plan. The proof of funding shall be demonstrated incrementally as the school bus program is paced to village-level occupancy and student enrollment levels.

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		(This mitigation measure applies to Mission Village without change.) **MV 4.23-9/2-9:** Prior to the issuance of the first 2,000th residential building permit within the RMDP/SCP project site and every 2,000th residential building permit thereafter, the project applicant or its designee shall provide Los Angeles County with proof that it has provided a subsidy of $100,000 per bus for the replacement of up to 10 diesel or compressed natural gas transit buses with electric buses to the identified transit provider(s). *(The Mission Village Project shall be responsible for its proportional share of the referenced subsidies.)* **MV 4.23-10/2-10:** Prior to issuing grading permits for village-level development within the RMDP/SCP project site, Los Angeles County shall confirm that the project applicant or its designee shall fully mitigate the related construction and vegetation change GHG emissions (the "Incremental Construction GHG Emissions") by relying upon one of the following compliance options, or a combination thereof, in accordance with the project applicant-submitted Newhall Ranch GHG Reduction Plan (GHG Reduction Plan; see Technical Report Appendix F contained in AEA Appendix 1): • Directly undertake or fund activities that reduce or sequester GHG emissions and retire the associated

		GHG reduction credits in a quantity equal to the Incremental Construction GHG Emissions; or • Obtain and retire carbon credits that have been issued by a recognized and reputable carbon registry, as described in the GHG Reduction Plan, in a quantity equal to the Incremental Construction GHG Emissions. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-11/2-11:** Prior to the issuance of building permits for every 100 residential units or 100,000 square feet of commercial development for each village-level project, the project applicant or its designee shall provide proof of funding of the proportional percentage of the Building Retrofit Program (Retrofit Program), as included in Technical Report Appendix G contained in AEA Appendix 1, to Los Angeles County. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Building retrofits covered by the Retrofit Program can include, but are not limited to: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting (including, but not limited to, light bulb replacement), energy efficient appliances, energy efficient windows, insulation, and water conservation measures. The Retrofit Program shall be implemented within the geographic area defined to include Los Angeles County and primarily within disadvantaged communities, as defined by the Retrofit Program, or in other areas accepted by the Los Angeles County Planning Director. Funding shall be applied to implement retrofits strategies identified in the Retrofit Program or other comparable

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		strategies accepted by the Los Angeles County Planning Director. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-12/2-12:** Prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall provide Los Angeles County with proof of installation of EV charging stations capable of serving 20 off-site parking spaces. Thereafter, the project applicant or its designee shall provide Los Angeles County proof of installation of EV charging stations prior to the issuance of residential and commercial building permits per the following ratios: one (1) off-site parking space shall be served by an electric vehicle charging station for every 30 dwelling units, and one (1) off-site parking space shall be served by an electric vehicle charging station for every 7,000 square feet of commercial development. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Off-site EV charging stations capable of servicing 2,036 parking spaces would be required if the maximum allowable development facilitated by the RMDP/SCP project occurs; fewer EV charging stations would be required if maximum build-out under the RMDP/SCP project does not occur. The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station and may service one or more parking spaces. In the event that the

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		installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour. The EV charging stations shall be located within the geographic area defined to include Los Angeles County, and in areas that are generally accessible to the public. For example, the charging stations may be located in areas that include, but are not limited to, retail centers, employment centers, recreational facilities, schools, and other categories of public facilities. *(This mitigation measure applies to Mission Village without change.)* **MV 4.23-13/2-13:** In addition to Mitigation Measures 2-1 through 2-12, the project applicant shall offset GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or, if necessary, obtaining carbon credits through the Newhall Ranch GHG Reduction Plan. The project applicant-submitted Newhall Ranch GHG Reduction Plan focuses on achieving GHG reductions or sequestration through the direct investment in specific

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		programs or projects in coordination with an accredited carbon registry, such as the Climate Action Reserve. If these direct investment efforts do not achieve an adequate amount of GHG reductions, the project applicant can obtain carbon credits from accredited carbon registries. SCAQMD recommends that mitigation be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within district; (4) off-site within state; and (5) off-site out of state (SCAQMD 2008). Prior to issuing building permits for development within the project site, Los Angeles County shall confirm that the project applicant or its designee shall fully offset the project's remaining (i.e., post implementation of Mitigation Measures 2-1 through 2-12) operational GHG emissions over the 30-year project life associated with such building permits ("Incremental Operational GHG Emissions) by relying upon one of the following compliance options, or a combination thereof, in accordance with the Newhall Ranch GHG Reduction Plan: • Demonstrate that the project applicant has directly undertaken or funded activities that reduce or sequester GHG emissions ("Direct Reduction Activities") that are estimated to result in GHG reduction credits, as described in the GHG Reduction Plan, and retire such GHG reduction credits in a

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		quantity equal to the Incremental Operational GHG emissions; • Provide a guarantee that it shall retire carbon credits issued in connection with Direct Reduction Activities in a quantity equal to the Incremental Operational GHG emissions; • Undertake or fund Direct Reduction Activities and retire the associated carbon credits in a quantity equal to the Incremental Operational GHG Emissions; or • If it is impracticable to fully offset Incremental Operational Emissions through the Direct Reduction Activities, the project applicant or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the Incremental Operational GHG Emissions. Compliance with MM 2-13 shall be demonstrated incrementally prior to obtaining building permits, and shall in the context of the project overall follow the preferred geographic hierarchy recommended by SCAQMD, discussed above. Incremental Operational GHG emissions shall be equal to the sum of the number of proposed residential units covered by the applicable building permit multiplied by 88.13 MT CO_2e and every thousand square feet of proposed commercial development covered by the applicable building permit multiplied by 367.90 MT CO_2e.

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		*(This mitigation measure applies to Mission Village without change, with the exception that the emissions reduction rates specified in the mitigation measure for residential and commercial building permits have been modified to reflect the Project-specific emissions analysis presented in **Appendix 2.1-A** and equate to those rates of emissions reductions needed to ensure that Project emissions are reduced to zero.)*
Section 2.2, Take Avoidance of the Fully-Protected Unarmored Threespine Stickleback		
Significant Unavoidable Impacts		
None		
Impacts Reduced to a Less-Than-Significant Level		
None		
Less-Than-Significant Impacts		
Take Avoidance of Unarmored Threespine Stickleback. In response to the Supreme Court's *CBD* decision, and based on the County's additional and independent review, section 4.3, Biological Resources, of the previously-certified Mission Village EIR, is supplemented as follows: Mission Village mitigation measures MV 4.3-2 and MV 4.3-8 through MV 4.3-12 are hereby eliminated as unnecessary under the County's	The applicant's proposed modified construction methods to be used on the Project's bridges and bank stabilization would fully avoid contact with the wetted channel of the Santa Clara River, eliminating any need to collect or relocate stickleback (or any other sensitive fish species) during construction activities, which, in turn, would eliminate the need for prior EIR mitigation measures MV 4.3-2 and MV 4.3-8 through MV 4.3-9. Consequently, no impacts to stickleback or take would occur.	**MV PDF-2.2-1:** To avoid impacts on the unarmored threespine stickleback, as well as other sensitive fish in the Santa Clara River, no construction activities shall take place in the wetted channel of the Santa Clara River. **MV PDF-2.2-2:** The construction methods for the permanent bridge at Commerce Center Drive shall be modified to: (i) reduce the number of bridge piers and include a span between piers that accommodates the maximum dry season flow within the Santa Clara River; and (ii) relocate bridge piers to span the bridge deck across the entirety of the wetted portion of the Santa Clara River channel to allow for a "no

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take avoidance analysis of the fully-protected unarmored threespine stickleback. In doing so, the County replaces and supersedes any prior discussion of the mitigation of impacts to unarmored threespine stickleback found in Section 4.3, Biological Resources, of the previously certified Mission Village EIR.		water contact construction zone" within the wetted channel and avoid the need for stream diversion or dewatering during construction. **MV PDF-2.2-3:** To avoid contact with the wetted channels of the Santa Clara River during construction, the span between permanent bridge piers shall increase from the 100-foot span analyzed in the Mission Village 2011 FEIR to a minimum of a 165-foot span over the wetted channel. **MV PDF-2.2-4:** The 165-foot span over the wetted channel shall conform to Caltrans Bridge Design Standards, the County of Los Angeles Department of Public Works geotechnical review requirements, and applicable seismic stability and operational safety standards. **MV PDF-2.2-5:** The Project shall use the full-depth casing method for constructing Cast-In-Drilled-Hole (CIDH) shafts for the permanent bridge at Commerce Center Drive. **MV PDF-2.2-6:** All bridge pier construction work shall be completed during the dry season (defined as June 1 through September 30), and may require multiple construction seasons. **MV PDF-2.2-7:** All construction of the permanent bridge decks and subsequent deck work shall occur from the top of the

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		superstructure and no access to the wetted channel of the Santa Clara River shall be allowed for this work to be completed. **MV PDF-2.2-8:** Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as the time period between June 1 and September 30, to preclude the construction work zone from being inundated by seasonal flood flows. Other bank stabilization installation at locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of winter flood flows may be constructed year-round. **MV PDF-2.2-9:** During the concrete pour of the permanent bridge piles, displaced groundwater shall be contained within portable tanks located in the work zone for disposal at a legal disposal site in an upland area. No continuous dewatering or drawdown within the shaft shall occur. Casing water, if any, shall be extracted and disposed at a legal disposal site in an upland location. No other construction dewatering associated with installation of the Commerce Center Drive bridge shall occur within the project site. **MV PDF-2.2-10:** All construction dewatering of seepage water associated with bank stabilization shall be conducted in a manner

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		that does not create a risk of fish stranding, either through draw down (zone of influence) or by flow discharge creating temporary habitat suitable for unarmored threespine stickleback. **MV PDF-2.2-11:** All long-term maintenance of project facilities on the Santa Clara River shall adhere to timing and work zone restrictions, specifically: (1) maintenance activities shall not take place in the wetted channel of the Santa Clara River; (2) maintenance, repair or replacement of bridge structures requiring access to the riverbed shall be restricted to the period from June 1 to September 30; (3) any dewatering necessary during any maintenance activities shall not create a risk of fish stranding, either through draw dawn (zone of influence) or through flow discharge creating temporary habitat suitable for unarmored threespine stickleback, nor shall it involve direct removal of surface water from, or discharge to, the wetted channel of the Santa Clara River. **MV 4.3-93/BIO-3-1a:** The applicant, or its designated general contractor, shall implement the PDFs and regulatory measures as incorporated into the project's bridge and bank stabilization designs. **MV 4.3-94/BIO-3-1b:** The mandated Worker Environmental Awareness Program (Mitigation Measure MV 4.3-26 from the 2011 Mission Village Final EIR) shall include a discussion regarding

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		restriction of access to the wetted channel of the Santa Clara River and repercussions if encroachment occurs. **MV 4.3-95/BIO-3-1c:** Prior to the commencement of construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that that no work takes place where fish may be affected. **MV 4.3-96/BIO-3-1d:** During permanent bridge construction, a qualified biologist shall monitor all activities that are a threat to adjacent natural habitats or nearby species and prevent equipment, personnel and debris from entering or making contact with the wetted channel of the river. **MV 4.3-97/BIO-3-1e:** A clear weather window, defined as less than a 40% chance of 0.1 inches of precipitation in the next 48 hours, as forecast by NOAA, shall be required for the scheduling of any bridge or bank stabilization-related concrete pours. If a bridge or bank stabilization-related concrete pour is in progress, and an un-forecasted rain event occurs, bridge or bank stabilization-related concrete pours shall be suspended. **MV-4.3-98/BIO-3-1f:** During all storm events (including summer rains), a monitor shall inspect work sites to make sure that site is secure and that flooding does not cause tarps to break or

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		diversion drains to become plugged, potentially allowing construction materials and debris to flow into the river. **MV 4.3-99/BIO-3-1g:** Precautionary spill containment devices shall be deployed and maintained during any pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the Work Zone or may be underslung or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing). **MV 4.3-100/BIO-3-1h:** A K-rail construction barrier shall be deployed between the bridge construction work zone and the wetted channel of the Santa Clara River. A discussion of access limitations shall be included in the required Worker Environmental Awareness Program training. **MV 4.3-101/BIO-3-1i:** Spill containment shall be deployed and maintained during Cast-in-Drilled-Hole (CIDH) pile construction, bridge column construction, cast-in-place girder construction, bridge deck pours, and any other pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the

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		wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the work zone or underslung tarp or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing). **MV 4.3-102/BIO-3-1j:** To prevent construction debris from falling into the Santa Clara River during installation of bridge decks, the deck areas shall be fitted with an under-slung debris tarp, debris platform, or equivalent, extending at least 50 feet beyond the width of the wetted channel. The applicant or its designee shall perform periodic maintenance and inspection to ensure that the debris catchment system is performing correctly. **MV 4.3-103/BIO-3-1k:** To ascertain that water quality is not being affected by bridge or bank stabilization-related concrete pouring activities, the project applicant or its designee shall monitor the water quality at points, upstream, downstream, and immediately adjacent to the bridge construction work zone daily during bridge-related concrete pouring operations and report the results monthly, or as directed, to CDFW and the County. Key parameters to be monitored include pH and turbidity.

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		MV 4.3-104/BIO-3-1l: All bridge maintenance and repair activities, as described in the RMDP Maintenance Manual, that have the potential to affect the wetted channel of the Santa Clara River shall adhere to the dry season window, as defined for this project, as June 1 through September 30, and to completely avoid the Santa Clara River wetted channel when performing maintenance activities. All measures implemented during original bridge construction shall also be implemented to avoid accidental contact, spills, or falling debris into the wetted channel. In the future, if the wetted portion of the Santa Clara River shifts in location (for example, in response to a flood event that alters the geomorphology of the channel), all maintenance and repair activities shall also be required to occur outside of the wetted channel. **MV 4.3-105/BIO-3-3b:** Prior to the commencement of bank stabilization construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that construction BMPs are installed prior to construction. Such surveys shall ensure that no work takes place where fish may be affected. **MV 4.3-106/BIO-3-3c:** Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as between June 1 and September 30 to preclude

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		the construction work zone from being inundated by seasonal flood flows. **MV 4.3-107/BIO-3-3d:** Bank stabilization construction locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of flood flows shall be constructed year-round. **MV 4.3-108/BIO-3-3e:** Although a late-spring or early fall flood event is not expected to occur, the project applicant or its designee shall implement Perimeter Best Management Practices, as required under the Environmental Protection Agency's Construction National Pollutant Discharge Elimination System permit, which would deflect minor flows (less than 12 inches deep, and less than 15 fps velocities) from entering bank protection construction work zones. **MV 4.3-109/BIO-3-3f:** Applicant or its designee shall develop a Construction Groundwater Dewatering Plan for those areas (i.e., bank stabilization areas) in close proximity to stream flow and submit to CDFW and the County for approval. The plan shall include the following measures and be conducted during construction groundwater dewatering activities: • Bank stabilization dewatering shall be implemented in a manner that (1) does not create temporary wetted channel habitat suitable for stickleback; (2) does not

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		diminish existing river flow, and therefore does not result in stranding of unarmored threespine stickleback or other fish; and (3) does not introduce pollutants to surface waters. • Dewatering activities shall not involve direct removal of surface water from, or discharge to the Santa Clara River. Nor shall such activities result in any draw-down of the river's flow such that fish may become stranded. Any groundwater discharges shall be directed to an appropriate and legal disposal site in an upland area that will not affect the surface elevation of the wetted channel of the Santa Clara River. • Applicant or its designee shall assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down). • Applicant or its designee shall monitor surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down before, during and after groundwater dewatering activities. The designated monitor shall have the authority to halt dewatering activities if water levels decrease in the wetted portion of the Santa Clara River where unarmored threespine stickleback are present. • Applicant or its designee shall monitor surface water elevations downstream of the project location to assess

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Summary of Significant Impacts, Project Design Features, and Mitigation Measures

Environmental Issue Area	Summary of Significant Impact	Project Design Features and Mitigation Measures
		any flow regimes and overbank areas that may be susceptible to flooding. • Applicant or its designee shall monitor upland discharge locations for potential channel erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge. • Monitoring reports shall be summarized and provided to CDFW and the County upon completion of construction activities that required dewatering.

2.1 GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

1. INTRODUCTION

This section describes the environmental setting for global climate change and greenhouse gas (GHG) emissions, and addresses the potential impacts resulting from the GHG emissions associated with implementation of the Mission Village Project (Project).

More specifically, this section analyzes GHG emissions from: (1) pre-Project, existing on-site conditions; and, (2) the one-time construction and vegetation change-associated activities, and annual operational activities facilitated by Project approval.[1] The Project's specific categories of GHG emissions-generating activities include energy use; water use; area sources (e.g., landscaping-related fuel combustion sources); waste disposal; traffic; construction; and vegetation change.

The significance criteria used to evaluate the Project's GHG emissions are taken from Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines. The analysis is informed by CEQA Guidelines Section 15064.4 titled, "Determining the Significance of Impacts from Greenhouse Gas Emissions."

Without considering mitigation, the Project would increase GHG emissions as compared to the existing environmental setting, which could result in a potentially significant impact to global climate change. However, with implementation of the thirteen (13) mitigation measures recommended in this section, the Project would cause *no net increase* in GHG emissions. Because the Project, as mitigated, would result in no net increase in the GHG emissions level, the Project would not have a significant impact on global climate change.

The recommended mitigation measures ensure the Project will result in no net increase in GHG emissions by imposing a robust suite of fully enforceable GHG emissions reducing strategies. Specifically, the mitigation measures **(MV 4.23-1/2-1** through **MV 4.23-13/2-13**) recommended in this section include, but are not limited to, the following:

- Achieving Zero Net Energy standards in residential and commercial development areas, as well as for private recreation centers and public facilities;

[1] The Project's construction-related activities will be phased over a multi-year period that culminates with the Project's build-out in 2028.

- Implementing a Transportation Demand Management (TDM) Plan to reduce vehicle miles traveled (VMT);
- Providing an electric vehicle charging station for every residence and offering zero emission vehicle purchase subsidies;
- Installing electric vehicle charging stations in publicly accessible areas on the Project site, as well as in publicly accessible, off-site locations within the County of Los Angeles;
- Funding a building retrofit program to improve the energy efficiency of existing buildings in disadvantaged communities within the County of Los Angeles; and,
- Implementing the Newhall Ranch GHG Reduction Plan to fully offset all remaining Project-related GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or obtaining certified carbon credits.

As demonstrated in the analysis below, the recommended mitigation measures ensure the Project reduces, sequesters, and/or offsets 100 percent of the Project's GHG emissions – thereby achieving no net increase in GHG emissions.

This analysis is based on Ramboll Environ's *Greenhouse Gas Emissions Technical Report*, dated October 2016, which is included in **Appendix 2.1-A**. Additionally, the analysis is based on three reports prepared by Meridian Consultants: *Mission Village Project Consistency with the County of Los Angeles' Community Climate Action Plan*, dated October 2016, which is included in **Appendix 2.1-B**; *Mission Village Project Consistency with SCAG's 2012-2035 RTP/SCS and 2016-2040 RTP/SCS*, dated October 2016, which is included in **Appendix 2.1-C**; and, *Analysis of Mission Village Project Eligibility for SB 375 CEQA Streamlining*, dated October 2016, which is included in **Appendix 2.1-D**.

This section replaces in full **Section 4.23**, Global Climate Change, from the previously certified 2011 EIR for the Mission Village Project. Please see **Section 1.0**, Executive Summary/Introduction, for relevant information regarding the judicial context for this analysis.

a. Relationship to Newhall Ranch Specific Plan Program EIR

The Mission Village Project would implement one of five villages within the Newhall Ranch Specific Plan area, which was previously approved by the County of Los Angeles. The approved Specific Plan authorizes a large-scale mixed-use community located in unincorporated Santa Clarita Valley in northwestern Los Angeles County. The previously certified Newhall Ranch Specific Plan Program EIR (SCH No. 1995011015) did not identify and analyze global climate change-related impacts. However, in response to identified impacts in other environmental impact/resource categories, the County adopted numerous mitigation measures and one condition of approval that, taken together, reduce the amount of GHG emissions generated by build-out of the Newhall Ranch Specific Plan, enable the Specific Plan

land uses to better respond to global climate change, and promote sustainable development. The Mission Village Project's EIR tiers from the previously certified Newhall Ranch Specific Plan Program EIR, and this section assesses the significance of the Mission Village Project's GHG emissions and related global climate change impacts.

b. Relationship to Newhall Ranch RMDP/SCP EIR

The Mission Village Project site is located within the geographic boundary of the Project applicant's Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP) Project, which covers resource management and development within the Project and other nearby developments. More precisely, the RMDP is a conservation, mitigation, and permitting plan for the long-term management of sensitive biological resources and development-related infrastructure in the River and tributary drainages within the Newhall Ranch Specific Plan area and along the extension of Magic Mountain Parkway through the Project site. The SCP is a conservation and management plan to permanently protect and manage a system of preserves designed to maximize the long-term persistence of the San Fernando Valley spineflower, a federal candidate and state-listed endangered plant species. The SCP encompasses the Specific Plan area and the Valencia Commerce Center and Entrada planning areas, in order to conduct conservation planning and preserve design on the Project applicant's land holdings in Los Angeles County that contain known spineflower populations.

The designated lead agency for the RMDP/SCP Project, for purposes of CEQA, is the California Department of Fish and Wildlife (CDFW). As discussed in **Section 1.0** of this additional analysis, CDFW is preparing additional environmental analysis addressing the impacts of the RMDP/SCP Project's GHG emissions on global climate change. In the event that CDFW certifies the additional environmental analysis for the RMDP/SCP Project, any mitigation measures or other applicable conditions of CDFW's approvals would apply to the Mission Village Project. CDFW's GHG emissions analysis for the RMDP/SCP Project is included in **Appendix 2.1-E**.

2. ENVIRONMENTAL SETTING

Global climate change refers to changes in average climatic conditions (e.g., temperature, wind patterns, precipitation, and storms). Global warming, which is one aspect of climate change, is the observed increase in the average temperature of the Earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere; these gases allow the sun's rays to enter the Earth's atmosphere but trap the energy that is radiated back into space, resulting in a warming of the atmosphere called the "greenhouse effect."

a. Science of Global Climate Change

Emissions of carbon dioxide (CO_2) are a leading cause of global warming, with other pollutants such as methane (CH_4), nitrous dioxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride also contributing. (See Health & Saf. Code, § 38505(g).) The magnitude of GHG impacts on global warming differs because each GHG has a different global warming potential, i.e., certain compounds have, on a pound-for-pound basis, greater contributions to global warming than others. The effect of each GHG is measured as a combination of the volume of its emissions and its global warming potential, using 1 pound of CO_2 as the common equivalent measure of global warming potential. (CO_2 has the greatest impact on global warming because of the relatively large quantities of CO_2 emitted into the atmosphere.) Thus, GHG emissions are typically measured in terms of megagrams or metric tonnes (MT) of CO_2 equivalent (CO_2e).[2]

In the context of CEQA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[3] Further, because climate change is occurring on a global scale, it is not meaningfully possible to quantify the scientific effect of new GHG emissions caused by a single project.[4]

(1) Potential Effects of Human Activity on Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns.

Scientific modeling completed by the Intergovernmental Panel on Climate Change (IPCC) predicts that the continued emission of GHGs at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century.[5] At the end of the 21st century, global surface temperature change is likely to exceed 1.5°C (relative to 1850-1900) in all of the IPCC's four assessed climate model projections but one.

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2 In this analysis, a "tonne" refers to a metric ton, i.e., 1,000 kilograms (2,204.6 pounds).

3 CAPCOA, CEQA & Climate Change (January 2008), p. 35. See also SMAQMD, CEQA Guide (February 2016), p. 6-1 ["from the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative"]; SJVAPCD, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (December 2009), p. 4 ["effects of project specific GHG emissions are cumulative"].

4 SMAQMD, CEQA Guide (February 2016), p. 6-10 ["there is no known level of emissions that determines if a single project will substantially impact overall GHG emission levels in the atmosphere"]; SJVAPCD, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (December 2009), p. 3 ["existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change"].

5 The IPCC is the leading international and intergovernmental body for the assessment of climate change and was established – in 1988 – by the United National Environment Programme and World Meteorological Organization to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts.

The understanding of the role that GHG emissions plays on global climate trends is complex and involves varying uncertainties and a balance of different effects. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is principally responsible for increased warming, there also is evidence that some human activity has cooling, rather than warming, effects, as discussed in publications by the IPCC. Nonetheless, when all effects and uncertainties are considered together, there is general scientific consensus that human activity contributes significantly to global warming.

Acknowledging uncertainties regarding the rate at which anthropogenic (i.e., human caused) GHG emissions may continue to increase,[6] and the impact of such emissions on climate change, the IPCC devises emission scenarios that utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century. For the IPCC's 2014 synthesis report (referred to as, AR5), a set of four new scenarios, denoted Representative Concentration Pathways (RCPs), were developed. (RCPs are based on a combination of integrated assessment models, simple climate models, atmospheric chemistry and global carbon cycle models.) The four RCPs include a mitigation scenario, two stabilizing scenarios, and one scenario with very high GHG emissions. While the projected effects of global warming on weather and climate are uncertain and likely to vary regionally, the following effects are expected by the IPCC based on the latest RCPs:

- It is very likely that the Arctic sea ice cover will continue to shrink and thin, with the Northern Hemisphere spring snow cover and global glacier volume also decreasing;
- It is virtually certain that there will be more frequent hot and fewer cold temperature extremes over most land areas on daily and seasonal timescales, with heat waves occurring at a higher frequency and duration;
- Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except the mitigation scenario. It is likely to exceed 2°C for the highest forcing scenario and one stabilizing scenario, and more likely than not to exceed 2°C for the remaining stabilizing scenario. Warming will continue beyond 2100 under all RCP scenarios except the mitigation scenario;
- The global ocean will continue to warm during the 21st century, with heat penetrating from the surface to the deep ocean and affecting ocean circulation;
- Further uptake of carbon by the ocean will increase ocean acidification;

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[6] These uncertainties are attributable to various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions.

- Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions;

Most aspects of climate change will persist for many centuries even if GHG emissions cease entirely.

Potential secondary effects from global warming also include a global rise in sea level, impacts to agriculture and water supply, changes in disease vectors, and changes in habitat and biodiversity.

(2) Potential Effects of Global Climate Change on the State of California

According to the California Air Resources Board (CARB), some of the potential California-specific impacts of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.

To protect the State's public health and safety, resources, and economy, the California Natural Resources Agency—in coordination with other State agencies — has updated the *2009 California Climate Adaptation Strategy* with the 2014 *Safeguarding California: Reducing Climate Risk* plan. Additionally, in March 2016, the California Natural Resources Agency released *Safeguarding California: Implementation Action Plans*, a document that shows how California is acting to convert the recommendations contained in the 2014 *Safeguarding California* plan into action. The 2016 *Action Plans* document is divided by ten sectors,[7] and shows the path forward by presenting the risks posed by climate change, the adaptation efforts underway, and the actions that will be taken to safeguard residents, property, communities and natural systems.

Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on a localized scale. And, while substantial work has been done at the international and national level to evaluate climatic impacts, far less information is available on regional and local impacts. In addition, projecting regional impacts of climate change and variability relies on large-scale scenarios of changing climate parameters, using information that is typically at too general a scale to make accurate regional assessments.

[7] The ten sectors include: agriculture; biodiversity and habitat; emergency management; energy; forestry; land use and community development; oceans and coastal resources and ecosystems; public health; transportation; and, water.

b. Regulatory Setting

(1) Federal

(a) Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (USEPA) has authority under the Clean Air Act to regulate CO_2 emissions if those emissions pose an endangerment to the public health or welfare.

In 2009, the USEPA issued an "endangerment finding" under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the USEPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed immediately below (see "Federal Vehicle Standards"). The USEPA also has adopted standards that set a national limit on GHG emissions produced from new, modified, and reconstructed power plants, and has issued the Clean Power Plan, which is targeted toward the reduction of carbon emissions from existing power plants. Under the Clean Power Plan, the USEPA set state-specific interim and final performance rates for two subcategories of fossil fuel-fired electric generation units: fossil fuel-fired electric steam generating units and natural gas-fueled combined cycle generating units. The Clean Power Plan requires states to develop and implement plans that ensure that the power plants in their state – either individually, together or in combination with other measures – achieve the interim performance rates over the period of 2022 to 2029 and the final performance rates, rate-based goals or mass-based goals by 2030. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review.

(b) Federal Plan to Reduce GHG Emissions by 2025

In 2015, the U.S. State Department submitted the nation's GHG emissions reduction target to the United Nations Framework Convention on Climate Change. The submission, referred to as an Intended Nationally Determined Contribution, is a formal statement of the U.S. target to reduce the nation's emissions by 26 to 28 percent below 2005 levels by 2025.

The target is the culmination of a process that examined opportunities under existing regulatory authorities to reduce GHG emissions in 2025 from all sources in every economic sector. Several U.S. laws, as well as existing and proposed regulations thereunder, are relevant to the implementation of the

U.S. target, including the Clean Air Act (42 U.S.C. § 7401 et seq.), the Energy Policy Act (42 U.S.C. § 13201 et seq.), and the Energy Independence and Security Act (42 U.S.C. § 17001 et seq.).[8]

(c) Federal Vehicle Standards

In response to the *Massachusetts v. Environmental Protection Agency* decision, in 2007, the Bush Administration issued Executive Order 13432 directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the same federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. In August 2016, the USEPA and NHTSA finalized the next phase (Phase 2) of the fuel economy and GHG standards for medium- and heavy-duty trucks, which will apply to vehicles with model year 2018 and later. In response to the completion of the federal Phase 2 rulemaking, CARB staff plan to propose a Phase 2 program for California in 2017.[9]

(d) Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

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8 The White House, FACT SHEET: U.S. Reports its 2025 Emissions Target to the UNFCCC (March 2015).

9 CARB, CA Phase 2 GHG webpage: http://www.arb.ca.gov/msprog/onroad/caphase2ghg/caphase2ghg.htm (accessed September 19, 2016).

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

(2) State

Numerous laws, plans, and regulations that require GHG emissions reductions have been implemented or are under development in California. This comprehensive statewide framework is summarized below.

(a) Executive Order S-3-05

In 2005, former Governor Arnold Schwarzenegger signed Executive Order S-3-05, which established the following statewide GHG emission reduction goals for California:

(1) by 2010, reduce GHG emissions to 2000 levels;

(2) by 2020, reduce GHG emissions to 1990 levels; and

(3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

(b) Assembly Bill 32

Assembly Bill (AB) 32 (Nunez, 2006), the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (Health & Saf. Code, § 38550). In order to achieve this reduction mandate, AB 32 requires CARB to adopt rules and

regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

AB 32 charges CARB to monitor and regulate sources of GHG emissions in order to reduce the State's emissions level. In December 2007, CARB approved 427 million MT CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. This limit is an aggregate statewide limit, rather than sector- or facility-specific, and is in accordance with Health & Safety Code Section 38550.

Per Health & Safety Code Section 38561(b), CARB also is required to prepare, approve, and amend a scoping plan that identifies and makes recommendations on "direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that [CARB] finds are necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020."

2008 Scoping Plan

In 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (2008 Scoping Plan) in accordance with Health & Safety Code Section 38561. During the development of the 2008 Scoping Plan, CARB created a planning framework that is comprised of eight emissions sectors: (1) transportation; (2) electricity; (3) commercial and residential; (4) industry; (5) recycling and waste; (6) high global warming potential (GWP) gases; (7) agriculture; and, (8) forest net emissions.

The 2008 Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions from the eight emissions sectors to 1990 levels by 2020. In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level, i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]).[10] For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

[10] CARB, Climate Change Scoping Plan: A Framework for Change (December 2008), p. 12. This document is hereby incorporated by reference pursuant to CEQA Guidelines Section 15150 and available for public review and inspection upon request to the County at 320 W. Temple Street, 13th Floor, Los Angeles, CA 90012.

In the 2011 *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document* (2011 Final Supplement), CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from BAU conditions.

2014 First Update to the Scoping Plan

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (2014 First Update).[11] The stated purpose of the 2014 First Update is to "highlight […] California's success to date in reducing its GHG emissions and lay […] the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."[12] The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.[13]

In conjunction with the 2014 First Update, CARB identified "six key focus areas comprising major components of the State's economy to evaluate and describe the larger transformative actions that will be needed to meet the State's more expansive emission reduction needs by 2050."[14] Those six areas are: (1) energy; (2) transportation; (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."[15] Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery;

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11 Health & Safety Code Section 38561(h) requires CARB to update the Scoping Plan every five years.

12 CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 4. This document is hereby incorporated by reference pursuant to CEQA Guidelines Section 15150 and available for public review and inspection upon request to the County at 320 W. Temple Street, 13th Floor, Los Angeles, CA 90012.

13 Id. at p. 34.

14 Id. at p. 6.

15 Id. at p. 32.

decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the 2014 First Update, CARB recalculated the State's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15.3 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

Anticipated Second Update to the Scoping Plan

Currently, CARB is moving forward with the development of a second update to the 2008 Scoping Plan. This update is expected to address Executive Order B-30-15 and Senate Bill (SB) 32, and specifically the statewide GHG emissions reduction target for 2030, as discussed below. Therefore, in the coming months, CARB is expected to develop statewide inventory projection data for 2030, and identify reduction strategies capable of securing emission reductions that allow for achievement of the 2030 target.

(c) 2015 State of the State Address

In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the State's climate adaptation strategy. As discussed below, the second and third pillars have been codified via recently enacted legislation (SB 350).

(d) Executive Order B-30-15

In April 2015, Governor Brown signed Executive Order B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This Executive Order also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 (see discussion above). Additionally, the Executive Order directed CARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

(e) 2016 State of the State Address

In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) representing 27 counties and six continents.

(f) Senate Bill 32, and Assembly Bill 197

Enacted in 2016, Senate Bill (SB) 32 (Pavley, 2016) codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197 (Garcia, 2016). Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

(g) Energy Sources

(i) Renewables Portfolio Standard

As amended by SB 350 (De León, 2015), California's Renewables Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030.

(ii) Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy

Commission (CEC) adopted the 2016 Building Energy Efficiency Standards (2016 Building Standards), effective January 1, 2017.

The California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.

The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC:

> "A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the [CEC]'s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings."[16]

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) are commonly referred to as CALGreen, and establish voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. CALGreen is periodically amended; the most recent 2016 standards will become effective on January 1, 2017.

(iii) Appliance Standards

The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally-regulated appliances and non-federally regulated appliances. The most current Appliance Efficiency Regulations, dated July 2015, cover 23 categories of appliances (e.g., refrigerators; plumbing fixtures; dishwashers; clothes washer and dryers; televisions) and apply to appliances offered for sale in California.

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[16] CEC, 2015 Integrated Energy Policy Report (2015), p. 41.

(h) Mobile Sources

(i) Sustainable Communities Strategy Plans

SB 375 (Steinberg, 2008), the Sustainable Communities and Climate Protection Act, coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the Project area (here, the Southern California Association of Governments [SCAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan (RTP) that will achieve GHG emission reduction targets set by CARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SCAG's jurisdiction, including the Project site, CARB adopted regional targets for reduction of mobile source-related GHG emissions by 8 percent for 2020 and by 13 percent for 2035.

(ii) Pavley Regulations

AB 1493 (Pavley, 2002) required CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016. In September 2004, and pursuant to AB 1493, CARB approved regulations (which are often referred to as the "Pavley standards") to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. CARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns.

(iii) Low Carbon Fuel Standard

Executive Order S-1-07, as issued by former Governor Arnold Schwarzenegger, called for a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB by 2020.[17] In response, CARB approved the Low Carbon Fuel Standard (LCFS) regulations in 2009, which became fully effective in April 2010. Thereafter, a lawsuit was filed challenging CARB's adoption of the regulations; and, in 2013, a court order was issued compelling CARB to remedy substantive and procedural defects of the LCFS adoption process under CEQA.[18] However, the court allowed

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[17] Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the "lifecycle" of a transportation fuel.

[18] *POET, LLC v. CARB* (2013) 217 Cal.App.4th 1214.

implementation of the LCFS to continue pending correction of the identified defects. In September 2015, CARB re-adopted the LCFS regulations.

(iv) Advanced Clean Cars Program

In 2012, CARB approved the Advanced Clean Cars (ACC) program, an emissions-control program for passenger vehicles and light-duty truck for model years 2017–2025, thereby continuing the regulatory framework established under the Pavley standards beyond model year 2016. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

(v) Zero Emission Vehicles

Zero emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-2012, which calls for the increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the Executive Order also calls upon CARB, the CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the State's residents with easy access to ZEV infrastructure.

In furtherance of those goals, in February 2013, the Governor's Interagency Working Group on ZEVs issued the *2013 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025*. Additionally, in May 2014, the National Renewable Energy Laboratory issued the *California Statewide Plug-In Electric Vehicle Infrastructure Assessment* (Infrastructure Assessment report) prepared at the request of the CEC. In the Infrastructure Assessment report, the CEC noted that "can't miss" ZEV charging locations are residential and workplace areas.

California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for CARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles as follows:

- Hydrogen Fuel Cell Electric Vehicles: $5,000
- Battery Electric Vehicles: $2,500

- Plug-In Hybrid Electric Vehicles: $1,500
- Neighborhood Electric Vehicles and Zero Emission Motorcycles: $900

Finally, in its 2014 First Update, CARB recognized that the light-duty vehicle fleet "will need to become largely electrified by 2050 in order to meet California's emission reduction goals."[19] Accordingly, CARB's ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.[20]

(i) Solid Waste Diversion

The California Integrated Waste Management Act of 1989, as modified by AB 341 (Chesbro, 2011), requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) source reduction, recycling and composting of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling,* which identified concepts that would assist the State in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

(j) CEQA Guidelines on GHG Emissions

In 2007, SB 97 was enacted and directed OPR and the California Natural Resources Agency to prepare amendments to the CEQA Guidelines addressing the analysis of GHG emissions under CEQA. Following formal rulemaking, a series of amendments to the CEQA Guidelines were adopted to provide the general framework for the analysis of GHG emissions, and became effective in 2010. The amendments do not provide a mandatory, quantitative rubric for GHG emissions analysis, but instead provide general

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[19] CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 48.

[20] Id. at p. 47.

guidance and recognize long-standing CEQA principles regarding the discretion afforded to lead agencies where supported by substantial evidence.

(3) Regional

(a) SCAG's Regional Transportation Plan/Sustainable Communities Strategy

As previously discussed, SB 375 requires SCAG to incorporate a Sustainable Communities Strategy into its RTP that achieves the GHG emission reduction targets set by CARB. As required by SB 375, CARB adopted year 2020 and 2035 GHG reduction targets for each metropolitan region. The SB 375 targets for the Southern California region under SCAG's jurisdiction in 2020 and 2035 are reductions in per capita GHG emissions of 8 percent and 13 percent, respectively.[21]

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

(i) 2012 Sustainable Communities Strategy

In April 2012, SCAG adopted its first-ever Sustainable Communities Strategy, which is included in the *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy* (2012 RTP/SCS). The goals and policies of the Sustainable Communities Strategy that reduce vehicle miles traveled (and result in corresponding GHG emission reductions) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. SCAG's 2012 Sustainable Communities Strategy is expected to reduce per capita transportation emissions by 9 percent in 2020 and by 16 percent in 2035. In 2012, CARB accepted SCAG's determination that the 2012 Sustainable Communities Strategy would meet the region's GHG reduction targets.[22]

(ii) 2016 Sustainable Communities Strategy

In April 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life* (2016 RTP/SCS). SCAG's 2016 Sustainable Communities Strategy is expected to reduce per capita transportation emissions by 8 percent in 2020, 18 percent in 2035, and 21 percent in 2040. In June 2016, CARB

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21 CARB, Executive Order G-11-024 (February 2011).

22 CARB, Executive Order G-12-039 (June 2012).

accepted SCAG's determination that the 2016 Sustainable Communities Strategy would meet the region's GHG reduction targets.[23]

In May 2016, the City of El Segundo filed a petition for writ of mandate challenging SCAG's adoption of the 2016 RTP/SCS under CEQA (L.A. County Superior Court Case No. BS162452). While the petition is focused on SCAG's alleged shortcomings relative to the aviation-related implications of the 2016 RTP/SCS for purposes of Los Angeles International Airport (LAX), some of the allegations broadly encompass more generally applicable components of SCAG's EIR for the 2016 RTP/SCS.

(b) South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is principally responsible for comprehensive air pollution control in the South Coast Air Basin, which includes Los Angeles, Orange, and the urbanized portions of Riverside and San Bernardino counties. SCAQMD works directly with SCAG, County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies to regulate air quality.

(i) Adopted Threshold for Stationary Source Projects

In 2008, SCAQMD's Governing Board adopted an interim CEQA GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial stationary source projects for which SCAQMD is the CEQA lead agency. When adopting its threshold, the Governing Board authorized the utilization of offsets as mitigation.

(ii) Draft Threshold for All Other Project Types

For all other projects (i.e., non-stationary source projects), SCAQMD staff developed a draft, multi-tier framework to assist with the CEQA significance evaluation process. The draft framework recognized the relevance of locally adopted GHG reduction plans, and allowed for the utilization of such plans in the significance evaluation process. The draft framework also contemplated the use of offsets to reduce emissions. As of September 2016, SCAQMD's Governing Board has not adopted the draft staff proposal.

(4) Local

(a) County of Los Angeles General Plan and Community Climate Action Plan

The County Board of Supervisors adopted the Los Angeles County General Plan 2035 in October 2015. The General Plan directs future growth and development in the County's unincorporated areas and establishes goals, policies and objectives that pertain to the entire County.

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[23] CARB, Executive Order G-16-066 (June 2016).

As part of the General Plan's Air Quality Element, the County adopted a Community Climate Action Plan (Climate Action Plan) to reduce GHG emissions associated with community (not municipal) activities in unincorporated Los Angeles County by at least 11 percent below 2010 levels by 2020. As the year 2020 approaches, the County intends to develop a reduction target for years beyond 2020 (such as 2035 and 2050), in order to continue the County's commitment to reducing its impacts on climate change. According to the Climate Action Plan, by December 31, 2021, the County will develop a substantial update to the existing plan that will take effect in 2022.

The Climate Action Plan addresses emissions from building energy, land use and transportation, water consumption and waste generation, and sets forth the County's path to a sustainable future that achieves identified GHG reductions. More precisely, the Climate Action Plan includes 26 local actions that are grouped into five emissions reduction strategy areas: (1) green building and energy; (2) land use and transportation; (3) water conservation and wastewater; (4) waste reduction, reuse and recycling; and, (5) land conservation and tree planting.

The Climate Action Plan provides that public agencies and private developers can use it to comply with project-level review requirements pursuant to CEQA because it accords to the tiering requirements established by CEQA Guidelines Section 15183.5(b)(1). As such, the Climate Action Plan provides that project-specific environmental documents that incorporate applicable emissions reduction strategies can "tier off" the EIR certified for the County's General Plan (including the Climate Action Plan) to meet project-level CEQA evaluation requirements for GHG emissions. Projects that demonstrate consistency with applicable emissions reduction strategies can be determined to have a less-than-significant impact on GHG emissions and global climate change.

The County's Climate Action Plan is hereby incorporated by reference pursuant to CEQA Guidelines Section 15150 and available for public review and inspection upon request to the County at 320 W. Temple Street, 13th Floor, Los Angeles, CA 90012. The Climate Action Plan also is available at the following website: http://planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf.

(b) Santa Clarita Valley Area Plan: One Valley One Vision 2012

The Santa Clarita Valley Area Plan: One Valley One Vision 2012 (Area Plan) serves as a long-term guide for development in the Santa Clarita Valley (Valley) Planning Area over the next 20 years. The Area Plan ensures consistency between the General Plans of the County and the City of Santa Clarita (City) in order to achieve common goals. The primary GHG-related policy of the Area Plan is the requirement that the County create and adopt a Climate Action Plan; that effort is complete, as discussed above.

(c) Green Building Standards

In 2013, in response to mandates set forth in CALGreen (discussed above), the County adopted the Los Angeles County Green Building Standards Code (Title 31), which adopts and incorporates by reference specified provisions of the 2013 CALGreen Code. The purpose of Title 31 is to facilitate sustainability via planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental air quality.

(5) Carbon Markets

Carbon markets – both regulatory and voluntary – are a venue for the buying, selling and trading of carbon credits.

(a) California Cap-and-Trade Program

In October 2011, CARB approved the Cap-and-Trade Program (Cal. Code Regs., tit. 17, §§ 95800-96022) pursuant to AB 32, with compliance obligations that became effective in 2013 for large electric power and industrial plants, and in 2015 for fuel distributors (including transportation fuel and natural gas). California's Cap-and-Trade Program regulates the emissions of these GHG emitters, which are responsible for about 85 percent of the State's total GHG emissions inventory.[24] As described by CARB:

> "Cap-and-trade is a market based regulation that is designed to reduce [GHGs] from multiple sources. Cap-and-trade sets a firm limit or cap on GHGs and minimize[s] the compliance costs of achieving AB 32 goals. The cap will decline approximately 3 percent each year beginning in 2013. Trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies. With a carbon market, a price on carbon is established for GHGs. Market forces spur technological innovation and investments in clean energy. Cap-and-trade is an environmentally effective and economically efficient response to climate change."[25]

In the Cap-and-Trade Program, the State regulates the quantity of emissions by determining, in advance, how many allowances to issue — i.e., setting the "cap." Each allowance is essentially a permit issued by the State authorizing a certain quantity of GHG emissions. There are only a finite number of allowances, ensuring that covered entities may only lawfully emit a certain quantity of GHGs. If a covered entity wishes to emit carbon, it must obtain allowances to authorize those emissions.

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[24] CARB, Overview of ARB Emissions Trading Program (February 2015).

[25] CARB, Cap-and-Trade Program webpage at http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed September 19, 2016).

Importantly, the Cap-and-Trade Program has been designed to provide a firm cap, ensuring that the 2020 statewide emissions limit identified by CARB in the 2008 Scoping Plan will *not* be exceeded.[26] Thus, for the emission sources covered by the Program, which are nearly all of the sources associated with land use development projects (see **Table 2.1-1**, Land Use-Related GHG Emissions Sources Covered by Cap-and-Trade Program, below), compliance with AB 32's 2020 mandate is assured by the Cap-and-Trade Program.[27]

Table 2.1-1
Land Use-Related GHG Emissions Sources Covered by Cap-and-Trade Program

Emissions Sources Associated with Land Use Development	GHG Emissions Source Examples	Covered by Cap-and-Trade?
Area Sources	Fuel combustion by landscaping equipment	Yes (gasoline and diesel fuel suppliers)
Energy Use	Natural gas combustion (e.g., stoves and water heaters)	Yes (natural gas suppliers)
	Fuel combustion at utilities for electricity production used in building energy use	Yes (electrical generators)
Water Use	Production of electricity to supply and treat water	Yes (electrical generators)
	Methane generated by wastewater treatment	Yes (wastewater treatment facilities)
Waste Disposal	Methane generated by waste disposal	Yes (landfills)
Traffic	Fuel combustion in car and trucks	Yes (gasoline and diesel fuel suppliers)
Construction	Fuel combustion in construction equipment	Yes (gasoline and diesel fuel suppliers)
Vegetation	Carbon sequestration lost due to vegetation loss	No

Source: **Appendix 2.1-A** -- Table 2-1 therein.

26 CARB, Climate Change Scoping Plan: A Framework for Change (December 2008), pp. 30-31.

27 SJVAPCD, APR – 2025, CEQA Determinations of Significance for Projects Subject to [CARB]'s GHG Cap-and-Trade Regulation (June 2014) ["all GHG emission increases resulting from the combustion of any fuel produced, imported and/or delivered in California are mitigated under Cap-and-Trade … Therefore, GHG emission increases caused by fuel use (other than jet fuels) are determined to have a less than significant impact on global climate change under CEQA"].

SCAQMD has taken a similar position on stationary source projects under its permitting jurisdiction; see, e.g., the Final Negative Declaration (2014) for the Ultramar Inc. Wilmington Refinery Cogeneration Project (SCH No. 2012041014) and the Draft EIR (2015) for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project (SCH No. 2014121014).

(b) Voluntary Markets

Like a stock or equity that represents a unit of ownership in a company, a carbon credit represents a unit of GHG emissions reductions. Each credit is essentially a certification that a certain quantity of GHG emissions have been avoided, prevented, or sequestered.

A carbon credit "project" may receive carbon credits for specific reductions in GHG emissions that occur as a result of a specific project activity. Examples of project activities that generate carbon credits include reforestation, the capture and destruction of methane emissions from livestock, or clean-burning cook stove replacement projects. A project can only receive offset credits if the project developer demonstrates what is known as the "environmental integrity" of the project.

The most common and generally accepted way for project applicants to demonstrate the environmental integrity of an offset project is by complying with an established, standards-based "protocol." A "protocol" is a method of measuring emission reductions. A standards-based protocol accomplishes that fundamental goal by establishing the baseline emissions condition for a given activity and then providing the project developer a specific, defined methodology to quantify and verify emissions reductions that occur over and above that baseline condition.

Offset credits are issued by a neutral, third-party "registry" (e.g., Climate Action Reserve) that has undertaken the responsibility of certifying that the emissions reductions have occurred. In what is known as the "voluntary market," registries review projects and issue recognized offset credits.

Under CEQA Guidelines Section 15126.4(c)(3)-(4), a project's GHG emissions can be reduced by "[o]ff-site measures, including offsets that are not otherwise required" and "[m]easures that sequester greenhouse gases." Therefore, the CEQA Guidelines allow projects to reduce GHG emissions by relying on voluntary market offsets that are not otherwise required, as well as other off-site and sequestration measures that result in GHG reductions.

c. Existing Conditions

(1) Project Site

The Project site generally is comprised of vacant land, some agricultural uses, water wells, abandoned oil wells, and associated access roads. As illustrated in **Table 2.1-2**, Summary of Existing On-Site GHG Emissions, the existing condition emissions inventory is estimated at approximately 369 MT CO_2e per year.

Table 2.1-2
Summary of Existing On-Site GHG Emissions

Emissions-Generating Activity	Existing Emissions
Energy use associated with water	311
N_2O emissions associated with fertilizer use	43
Emissions associated with diesel fuel usage	16
Total	**369**

Source: **Appendix 2.1-A** -- Table ES-1 and Appendix A therein.

(2) County, State, National, and International Emissions Inventory Levels

Based on the most recent available emissions inventory data for various geographies of increasing scale: In 2010, the unincorporated portion of Los Angeles County emitted approximately 7,982,720 MT CO_2e per year. In 2013, the State of California emitted approximately 459,300,000 MT CO_2e per year. In 2014, the United States emitted approximately 6,872,600,000 MT CO_2e per year. And, in 2010, the global inventory level was approximately 50,101,410,000 MT CO_2e per year.

As to the 2014 national inventory, of the four major emission sectors – residential, commercial, industrial and transportation – the transportation sector accounts for the highest fraction of GHG emissions (approximately 56 percent of emissions from these four sectors); these emissions are entirely generated from direct fossil fuel combustion. Approximately 60 percent of the transportation emissions resulted from passenger car and light-duty truck use. The remaining emissions came from other transportation activities, including the combustion of diesel-fuel in medium- and heavy-duty vehicles and jet fuel in aircraft.

As to the 2013 State inventory, California emitted about seven percent of the U.S. emissions. California's percentage contribution is due primarily to the sheer size of California, as compared to other states. The CEC found that transportation is the source of approximately 37 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 20 percent, and industrial sources at 20 percent. Residential and commercial activities comprised approximately 9 percent of the inventory. Agriculture and forestry is the source of approximately 8 percent of the State's GHG emissions.

3. PROJECT SUMMARY

As discussed in **Section 1.0**, Executive Summary/Introduction, the "Project" is Mission Village, one of five villages within the County-approved Newhall Ranch Specific Plan. Mission Village would accommodate 4,055 homes (specifically, 351 single-family homes and 3,704 multi-family homes, including 351 Continued Care Retirement Community (CCRC) homes, 459 age-qualified homes and 300 affordable housing units) and approximately 1.5 million square feet of commercial (retail/office) uses. The Project also would include a 9.5-acre elementary school, 3.3-acre library, 1.5-acre fire station, 1.2-acre bus transfer station, and approximately 693 acres of open space (including parks, recreation areas, Santa Clara River area, and three spineflower preserves located on 85.8 acres). Mission Village would further include supporting facilities and infrastructure located on and off of the tract map site.

The Mission Village Project would result in the following types of emissions-generating activities: (i) construction; (ii) vegetation change; (iii) landscaping-related fuel combustion (e.g., lawn mowers) (referred to as an "area source"); (iv) energy use in the built-environment (i.e., electricity and natural gas usage associated with homes, buildings and swimming pools); (v) energy use (electricity) and emissions associated with the conveyance, treatment and distribution of water and wastewater; (vi) solid waste disposal; and (vii) on-road transportation (mobile) sources (e.g., passenger vehicles and light-duty trucks). The first two categories of emissions-generating activities – construction activities and vegetation changes – result in one-time emissions. The other emissions-generating activities result in ongoing operational emissions.

4. SIGNIFICANCE THRESHOLDS

The analysis provided in this section evaluates the significance of the Project's GHG emissions by reference to the following questions from Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines:

Threshold 2.1-1 Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2.1-2 Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

In applying these thresholds, reference is made to CEQA Guidelines Section 15064.4(b)(1)-(3), which provides that a lead agency should consider the following factors, among others, when assessing the environmental significance of GHG emissions: (1) the extent to which a project increases or reduces GHG emissions as compared to the existing environmental setting; (2) whether project emissions exceed a significance threshold that the lead agency determines is applicable; and, (3) whether a project

complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction of GHG emissions.

In addition, CEQA Guidelines Section 15064(h)(3) provides that: "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program … that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located."

a. Methodologies for Evaluating Significance

To assess the significance of the Project's GHG emissions relative to the identified thresholds, this section utilizes quantitative and qualitative information to support the significance determination presented herein. This approach is in accordance with CEQA Guidelines Section 15064.4(a), which affirms the discretion of a lead agency to determine, in the context of a particular project, whether to use quantitative and/or qualitative methodologies to determine the significance of a project's impacts.

b. Emissions Inventory Modeling

CalEEMod® version 2013.2.2 was used to quantify the Project's GHG emissions. CalEEMod® provides a platform to calculate both construction emissions and operational emissions from a land use development project and specifically aids the user in the following calculations:

- One-time short-term construction emissions associated with site preparation, demolition, grading, utility installation, building, coating, and paving from off-road construction equipment, and on-road mobile equipment associated with workers, vendors, and hauling.
- One-time vegetation sequestration changes, such as permanent vegetation land use changes and new tree plantings.
- Operational emissions associated with the fully built-out land use development, such as on-road mobile vehicle traffic generated by the land uses,[28] off-road emissions from landscaping equipment, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses.

CalEEMod was developed under the auspices of SCAQMD, upon receiving input from other California air districts. CalEEMod® utilizes widely accepted models for emissions estimates combined with appropriate

[28] As previously discussed, in APR – 2025, SJVAPCD concluded that "all GHG emission increases resulting from the combustion of any fuel produced, imported and/or delivered in California are mitigated under Cap-and-Trade … Therefore, GHG emission increases caused by fuel use (other than jet fuels) are determined to have a less than significant impact on global climate change under CEQA." Nonetheless, this analysis quantifies all Project-related emissions and conservatively assumes that they are not otherwise reduced to levels of insignificance via CARB's Cap-and-Trade Program.

default data that can be used if site-specific information is not available. For example, CalEEMod® incorporates USEPA-developed emission factors; CARB's on-road and off-road equipment emission models, such as EMFAC and OFFROAD;[29] and studies commissioned by other California agencies, such as the CEC and CalRecycle.

The emissions inventory modeling estimated the Project's operational emissions in its build-out year (2028). In addition, the modeling estimated the Project's operational emissions under two types of conditions: (1) unmitigated conditions, as established by the statewide framework of existing regulatory standards and initiatives (referred to below as the Unmitigated Project); and, (2) mitigated conditions, as established by the suite of mitigation measures recommended in this section (referred to below as the Mitigated Project).

For further information regarding the specific emissions calculations for the Project's emissions-generating activities, please refer to **Appendix 2.1-A**, and specifically Section 3 (GHG Emissions Inventory) therein.

5. PROJECT IMPACT ANALYSIS

a. Threshold 2.1-1

As reflected in **Threshold 2.1-1**, CEQA Guidelines Section 15064.4(a) requires the lead agency to calculate or estimate the amount of GHG emissions resulting from a project; Section 15064.4(b)(1) provides that the lead agency should consider the extent to which a project increases or reduces GHG emissions as compared to the existing environmental setting.

As shown in **Table 2.1-2**, Summary of Existing On-Site GHG Emissions, existing emissions-generating activities within the Project site emit approximately 369 MT CO_2e per year. In comparison, and as shown in **Table 2.1-3**, Summary of Mission Village Project GHG Emissions, the Unmitigated Project would emit 79,202 MT CO_2e per year in 2028, the Project's build-out year.

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[29] EMFAC is an emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles; haul trucks). OFFROAD is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment).

CalEEMod® version 2013.2.2 utilizes CARB's 2011 version of EMFAC. However, in December 2015, the USEPA approved CARB's 2014 version of EMFAC. In order to more accurately estimate the GHG emissions from the Project's operational mobile sources, EMFAC2014 information was incorporated into the analysis, in lieu of CalEEMod's default utilization of EMFAC2011 information.

Without considering mitigation, the Project would result in an obvious change to the existing GHG emissions from the Project site.[30] Specifically, for purposes of **Threshold 2.1-1**, the Unmitigated Project's numeric increase of approximately 79,202 MT CO_2e per year in 2028 could have a potentially significant impact on global climate change.

However, with implementation of the recommended mitigation measures (**MV 4.23-1/2-1** through **MV 4.23-13/2-13**), the Mitigated Project's net GHG emissions would be reduced to zero as shown in **Table 2.1-3**, Summary of Mission Village Project GHG Emissions. Approximately 57 percent of the Project's emissions reductions would be achieved through the implementation of mitigation measures that require GHG emissions reduction either on the Project site or in the County of Los Angeles; the remaining 43 percent of the Project's emissions reductions would be achieved through the implementation of the Newhall Ranch GHG Reduction Plan (see **MV 4.23-10/2-10** and **MV 4.23-13/2-13**), which focuses on direct investments in off-site GHG reduction programs.

As a result, the Mitigated Project would have *no net increase* in GHG emissions as compared to the existing environmental setting (see CEQA Guidelines § 15064.4(b)(1)). Because the Mitigated Project would have no net increase in the GHG emissions level, the Project would not have a significant impact on global climate change for purposes of **Threshold 2.1-1**. Further, because the Mitigated Project would result in no net increase in the GHG emissions level after implementation of the recommended mitigation measures, the Project would not make a cumulatively considerable contribution to global GHG emissions.

(Note that it is not the intent of this analysis to establish a new benchmark whereby only projects that reduce emissions to zero result in less-than-significant impact determinations for purposes of CEQA. Consistent with the established legal framework, the County recognizes that there are multiple possible pathways available under CEQA for a lead agency to evaluate the significance of projects' GHG emissions; such evaluations are a matter of lead agency discretion and require careful judgment on a project-by-project basis.)

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[30] Evidence suggests that new land use development does not necessarily create entirely new GHG emissions, since most of the people who will visit or occupy new development will come from other locations where they were already causing such GHG emissions. (See CAPCOA, CEQA & Climate Change (January 2008), p. 73 ["[A] land development project, such as a specific plan, does not necessarily create 'new' emitters of GHG, but would theoretically accommodate a greater number of residents in the state. Some of the residents that move to the project could already be California residents, while some may be from out of state (or would 'take the place' of in-state residents who 'vacate' their current residences to move to the new project). Some may also be associated with new births over deaths (net population growth) in the state. The out-of-state residents would be contributing new emissions in a statewide context, but would not necessarily be generating new emissions in a global context."].) Further, because climate change is occurring on a global scale, it is not meaningfully possible to quantify the scientific effect of new GHG emissions caused by a single project. (See footnote 4, above.) Indeed, there is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is considered significant, and there remains no applicable, adopted numeric threshold for assessing the significance of a project's individual emissions as a direct impact.

Table 2.1-3
Summary of Mission Village Project GHG Emissions

Emissions Category	2028 Unmitigated Project (MT CO_2e/yr)	2028 Mitigated Project (MT CO_2e/yr)
Area	70	70
Energy Use	12,419	441
Residential ZNE (MV 4.23-1/2-1)	--	-5,043
Non-Residential ZNE (MV 4.23-2/2-2)	--	-5,112
Solar Water Heating (MV-4.23-3/2-3)	--	-1,636
Building Retrofit Program (MV 4.23-11/2-11)	--	-187
Water Use	889	889
Waste Disposed	4,391	4,391
Traffic	59,585	26,331
Residential EV (MV 4.23-4/2-4)	--	-9,043
Commercial EV (MV 4.23-5/2-5)	--	-6,646
TDM Plan (MV 4.23-6/2-6)	--	-9,193
Traffic Signal Synchronization (MV 4.23-7/2-7)	--	-1,032
Electric School Buses (MV 4.23-8/2-8)	--	-25
Electric Transit Buses (MV 4.23-9/2-9)	--	-124
Off-Site EV (MV 4.23-12/2-12)	--	-7,190
Annual Emissions Sub-Total	**77,354**	**32,122**
Construction Amortized	844	0
Vegetation Amortized	1,004	0
Carbon Credits for Construction and Vegetation Change Emissions (MV 4.23-10/2-10)	--	-1,847
One-Time Emissions Sub-Total	**1,847**	**0**
Project Emissions Sub-Total	**79,202**	**32,122**
GHG Reduction Plan (MV 4.23-13/2-13)	**--**	**-32,122**
Project Emissions Total	**79,202**	**0**
Potentially Significant?	**Yes**	**No**

Source: **Appendix 2.1-A** -- Table ES-2 therein. Please also see Table 4-1 in **Appendix 2.1-A** for an overview of the modeling assumptions used to estimate the emissions for the Unmitigated and Mitigated Project conditions.

b. Threshold 2.1-2

Because the Project would not increase net GHG emissions above existing levels following implementation of the thirteen recommended mitigation measures, it would not conflict with any adopted and applicable local or State plans, policies or regulations to reduce GHG emissions in 2020, 2030 and/or 2050, all of which utilize non-zero targets (and thereby allow for some level of emissions for land use developments to accommodate projected growth) to reduce the State's cumulative contribution to global climate change. As such, the Project's impacts relative to adopted and applicable local and statewide plans, policies or regulations designed to reduce GHG emissions would be less than significant with mitigation.

For informational purposes, the following provides additional discussion of several local and State policies for the reduction of GHG emissions.

(1) Additional Information regarding the Statewide GHG Emissions Reduction Targets

As discussed above, California has multiple statewide GHG emissions reduction targets that are relevant to determining whether the Project would conflict with an applicable policy adopted for the purpose of reducing GHG emissions: Under AB 32, statewide emissions must be reduced to 1990 levels by 2020. Under SB 32, statewide emissions must be reduced to 40 percent below 1990 levels by 2030. And, under Executive Order S-3-05, statewide emissions must be reduced to 80 percent below 1990 levels by 2050.

As stated above, because the Project would not increase GHG emissions above existing levels following implementation of the thirteen recommended mitigation measures, it would not conflict with any of the State's policies to reduce GHG emissions in 2020, 2030 and 2050, all of which do not utilize net-zero targets (and thereby allow for some level of emissions for land use developments to accommodate projected growth) to reduce the State's cumulative contribution to global climate change.

(a) 2050 Statewide Reduction Goal

In the 2014 First Update to the Scoping Plan, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires

significant efforts to deploy and scale markets for the cleanest technologies immediately."[31] Therefore, the 2014 First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."[32] And, many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2028 emissions level to the extent applicable by law:[33]

- **Energy Sector:** CARB identified the expansion of California's renewable resources as an important component of the GHG reduction program outlined in its 2014 First Update, citing third-party studies concluding that the maximum penetration of renewable energy sources in California could be as high as 74 to 80 percent by 2050.[34] Further increases in the State's Renewables Portfolio Standard, beyond the 45 percent requirement for 2027 that is accounted for in this analysis (see Public Utilities Code, § 399.15(b)(2)(B)), would serve to further reduce the Project's emissions.
- **Transportation Sector:** Anticipated and continued deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all would serve to reduce the Project's emissions level.[35] It is expected that these types of advancements will occur through coordinated federal (USEPA and NHTSA) and State (CARB) regulatory action, as well as through roadway and transit improvements undertaken at the State, regional and local levels. Relatedly, California's Executive Branch has established a goal to cut the petroleum use in cars and trucks by half by 2030 (see discussion of 2015 State of the State Address, above).
- **Water Sector:** The Project's emissions level would be reduced as a result of further desired enhancements to water conservation technologies.[36]
- **Waste Management Sector:** Plans to further improve recycling, reuse and reduction of solid waste would beneficially reduce the Project's emissions level.[37]

Recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies do not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrate that various combinations of policies

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31 CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 32.

32 Id. at p. 4. See also id. at pp. 32–33 [recent studies show that achieving the 2050 goal will require that the "electricity sector will have to be essentially zero carbon; and that electricity or hydrogen will have to power much of the transportation sector, including almost all passenger vehicles"].

33 Id. at Table 6: Summary of Recommended Actions by Sector, pp. 94-99.

34 Id. at Appendix C, p. 33.

35 Id. at pp. 55-56.

36 Id. at p. 65.

37 Id. at pp. 66-67, 69 ["By 2050, direct GHG emissions from waste sector activities could be reduced by 25 percent, creating a net negative GHG footprint for the waste sector."].

could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2030 and 2050 targets.[38]

The Project's mitigation program advances many of the State's primary policies directed towards the reduction of GHG emissions and the establishment of a clean energy paradigm, as summarized above. For example, mitigation measures **MV 4.23-1/2-1** and **MV 4.23-2/2-2** ensure that the Project's residential and commercial development areas, as well as the private recreation centers and public facilities, will achieve Zero Net Energy standards, as defined by the CEC. Additionally, mitigation measure **MV 4.23-11/2-11** will secure meaningful energy efficiency improvements in existing disadvantaged communities.[39] A host of mitigation measures (i.e., **MV 4.23-4/2-4**, **MV 4.23-5/2-5**, **MV 4.23-8/2-8**, **MV 4.23-9/2-9**, and **MV 4.23-12/2-12**) also advance the State's objective to transition to a zero-emission transportation fleet; and, mitigation measure **MV 4.23-6/2-6** is consistent with the objective to manage the demand for traditional transportation means through a suite of strategies that influence the transportation habits of the Project's residents, employees, etc. Further, as discussed above, because the Project would not increase GHG emissions above existing levels following implementation of the thirteen recommended mitigation measures, it would not conflict with any of the State's policies to reduce GHG emissions, including the 2050 target in Executive Order S-3-05.

(2) County of Los Angeles Community Climate Action Plan

As discussed above, the Project is consistent with the Climate Action Plan because it reduces its emissions to zero following application of the recommended mitigation framework, thereby ensuring that it makes no incremental contribution to the existing emissions level in the County that could otherwise be characterized as potentially significant. In addition, as demonstrated in **Appendix 2.1-B**, the Project is consistent with the emissions reduction strategies identified in the County's Climate Action Plan with implementation of the mitigation measures recommended for adoption below.

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38 Energy and Environmental Economics (E3), Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios (April 2015); Greenblatt, Jeffrey, Energy Policy (Vol. 78), Modeling California Impacts on Greenhouse Gas Emissions (March 2015), pp. 158-172.

39 As defined in the Newhall Ranch Building Retrofit Program (a copy of which is located in Appendix G of **Appendix 2.1-A**), disadvantaged communities include: (i) census tracts with a median household income (MHI) at or below 80 percent of the state MHI; (ii) census tracts identified as among the most disadvantaged 25 percent of census tracts according to the Office of Environmental Health Hazard Assessment's CalEnviroScreen; (iii) areas with at least 75 percent of public school students meeting eligibility criteria for free or reduced price meals; or (iv) areas that do not meet the above criteria, or where data are insufficient, but for which there is a quantitative assessment demonstrating a reasonable basis for why the community should be considered disadvantaged.

(3) Senate Bill 375

The Project is consistent with SCAG's attainment of its regional reduction targets because it reduces its emissions to zero following application of the recommended mitigation framework. By achieving zero net emissions, the Project would be consistent with SCAG's regional planning efforts to reduce greenhouse gas emissions.

(a) Public Resources Code Section 21159.28 Evaluation

The California Supreme Court has noted that "CEQA expressly allows streamlining of transportation impacts analysis for certain land use projects based on metropolitan regional 'sustainable communities strategies.'" (*Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204, 230.) The Court specifically referred to Public Resources Code Section 21159.28 relative to the analysis of GHG emissions. (Ibid.)

Public Resources Code Section 21159.28(a) provides:

> "If a residential or mixed-use residential project is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy …, for which the State Air Resources Board pursuant to subparagraph (I) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code has accepted the metropolitan planning organization's determination that the sustainable communities strategy … would, if implemented, achieve the greenhouse gas emission reduction targets and if the project incorporates the mitigation measures required by an applicable prior environmental document, then any findings or other determinations for an … an environmental impact report … prepared or adopted for the project pursuant to this division shall not be required to reference, describe, or discuss (1) growth inducing impacts; or (2) any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network."

Section 21159.28(d) further provides that qualifying residential or mixed-use residential projects must allocate at least 75 percent of the total building square footage to residential uses.

In this instance, and as substantiated in **Appendix 2.1-C** and **Appendix 2.1-D**, the Project meets all of the criteria in Section 21159.28. First, the Project is consistent with the use designation, density, building intensity, and applicable policies contained in SCAG's adopted 2012 and 2016 Sustainable Communities Strategy plans. Second, in June 2012, CARB determined that the 2012 Sustainable Communities Strategy plan, if implemented, would achieve the GHG emissions reduction targets adopted by CARB for the region. In June 2016, CARB determined that the 2016 Sustainable Communities Strategy plan, if implemented, would achieve the GHG emissions reduction targets adopted by CARB for the region.

Third, the Project has incorporated the substantive requirements of the GHG mitigation measures from SCAG's certified Program EIRs for the 2012 and 2016 Sustainable Communities Strategy plans. (See Table 1 and Table 2 in **Appendix 2.1-D**.) Fourth, approximately 87 percent of the Newhall Ranch Specific Plan's total building square footage consists of residential uses.

Because the Project is consistent with the criteria identified in Public Resources Code Section 21159.28, the Project's emissions from cars and light-duty trucks are addressed at the regional level through SCAG's Sustainable Communities Strategy plans. Nonetheless, conservatively, the analysis of Project impacts provided in this section fully accounts for the Project's emissions from cars and light-duty trucks.

(b) Consistency with SCAG's 2012 Sustainable Communities Strategy Plan

In contrast to previous RTPs, the 2012-2035 RTP/SCS places greater emphasis on sustainability and integrated planning and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the SCS would result in Southern Californians being offered more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The 2012-2035 RTP/SCS is based on development occurring both within existing urban areas and on land that has not previously been developed (i.e., greenfield development). In terms of land consumption, the 2012-2035 RTP/SCS incorporates 334 square miles of greenfield development. Within the Project site, a total of approximately 1.97 square mile of land area would be developed. As the development facilitated by the Project is classified as greenfield development, on-site development would comprise 0.59 percent of the greenfield development area incorporated into the 2012-2035 RTP/SCS. In terms of the location of future development, a review of the 2012-2035 RTP exhibits indicates that the Project site is an area of future population, employment, and household growth.

Strategies and policies set forth in the 2012-2035 RTP/SCS that address land use development projects can be grouped into the following three categories: (1) reduction of vehicle trips and vehicle miles traveled; (2) increased use of alternative fuel vehicles; and, (3) energy efficiency.

Here, as to the first important focus within the 2012-2035 RTP/SCS, development facilitated by the Project would achieve reductions in vehicle trips and vehicle miles traveled via the community design established for the Project site, an on-site transit system, an active transportation network, and a

comprehensive transportation demand management program (see mitigation measure **MV 4.23-6/2-6**). All development within the Project site would be located adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers, in furtherance of SB 375 policies. Specifically, as illustrated in **Appendix 2.1-C**, over 69 percent of the on-site areas designated for residential development are located within ½ mile of on-site commercial areas, whereas all residential development is located within 3 miles of on-site commercial areas,[40] as well as being within walking and bicycling distances to the on-site schools, parks, recreation centers, and trail system. The Project's transportation demand management program has been determined to reduce the Project's total vehicle miles traveled (VMT) by 15.5 percent. As such, the development facilitated by the Project would be consistent with the SB 375 goal to reduce vehicle miles travelled, and the corresponding GHG emissions, through the creation of more efficient communities.

As to second important focus within the 2012-2035 RTP/SCS, the Project would implement a comprehensive suite of mitigation measures to facilitate the use of alternative fuel technology, and to increase the fleet and market penetration of zero emission vehicles. The mitigation measures include the installation of on-site and off-site electric vehicle charging infrastructure in residential, commercial and other types of non-residential areas within the County of Los Angeles (see **MV 4.23-4/2-4**, **MV 4.23-5/2-5** and **MV 4.23-12/2-12**), as well as the provision of financial subsidies to residents in order to incentivize the purchase of zero emission vehicles (see **MV 4.23-4/2-4**). Additionally, the mitigation measures require the Project applicant or its designee to subsidize the purchase of electric school and transit buses (see **MV 4.23-8/2-8** and **MV 4.23-9/2-9**).

As to the third important focus within the 2012-2035 RTP/SCS, the mitigation measures described above would increase the efficiency levels of fuel consumption. Additionally, mitigation measures **MV 4.23-1/2-1**, **MV 4.23-2/2-2** and **MV 4.23-3/2-3** would improve the efficiency of energy consumption associated with the on-site built environment, through requirements to: (a) achieve Zero Net Energy homes, commercial buildings, private recreation centers and public facilities, and (b) rely on solar water heating for the swimming pools at private recreation centers. Additionally, mitigation measure **MV 4.23-11/2-11**, which requires the Project applicant or its designee to fund the implementation of an off-site building retrofit program within the County of Los Angeles, would secure additional energy savings from the existing built environment.

A detailed analysis of the Project's consistency with the individual actions, strategies, and policies set forth in the 2012-2035 RTP/SCS is presented in Table 1 of **Appendix 2.1-C**.

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[40] These distances are identified by SCAG in the 2012-2035 RTP/SCS as the distances when the use of active transportation (e.g., walking and bicycling) is more attractive than driving.

Based on the analysis presented above and in **Appendix 2.1-C**, the Mitigated Project is consistent with the 2012-2035 RTP/SCS and would not impair the SCAG region's attainment of CARB's SB 375-adopted reduction targets.

(c) Consistency with SCAG's 2016 Sustainable Communities Strategy Plan

While there has been an evolution in policymaking between the 2012-2035 RTP/SCS and the 2016-2040 RTP/SCS, the emphasis on increasing mobility and sustainability remains a foundational component. In addition, the major themes set forth in the 2016-2040 RTP/SCS are also very similar to those included in the 2012-2035 RTP/SCS. The major themes incorporated into both the 2012-2035 RTP/SCS and the 2016-2040 RTP/SCS that are applicable to new land use development projects follow, with italicized parentheticals identifying the Mitigated Project's implementation of those themes:

- **Integrating strategies for land use and transportation.** *[The Project-related development utilizes smart land design principles to integrate land uses and transportation options. For example, the extensive on-site trail system, which also would connect to off-site trails, would enable residents to travel by foot or bicycle to the mixed-use core within the Project.[41]]*
- **Striving for sustainability.** *[The Project-related development would implement a suite of design and mitigation strategies in furtherance of sustainable development principles. For example, mitigation measures **MV 4.23-1/2-1** and **MV 4.23-2/2-2** would lead to the development of the State's first-ever Zero Net Energy large-scale, master-planned community.]*
- **Increasing capacity through improved system management.** *[The Project-related development would achieve improved systems management through implementation of mitigation measure **MV 4.23-6/2-6**'s transportation demand management program, which would provide residents and visitors to the Project site with a suite of transportation options and incentives. Additionally, mitigation measure **MV 4.23-7/2-7** requires the implementation of traffic signal coordination improvements along identified major roadways.]*
- **Giving people more transportation choices.** *[The Project includes the construction and operation of a bus transfer station to enhance the transit interconnectivity options provided on the Project site. Additionally, mitigation measure **MV 4.23-6/2-6**'s transportation demand management program would provide the Project's residents and employees with options and incentives to utilize transit, car share and bike share programs, neighborhood electric vehicle networks, and tech-enabled mobility.]*
- **Leveraging technology.** *[Mitigation measure **MV 4.23-6/2-6**'s transportation demand management program includes a provision for tech-enabled mobility. Additionally, mitigation measures **MV 4.23-1/2-1** and **MV 4.23-2/2-2** require utilization of Zero Net Energy technology in the built environment;*

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[41] For further discussion, see the 2011 EIR's "Implementation of Smart Growth Principles" discussion in Section 1.0, Project Description.

*and, mitigation measures **MV 4.23-4/2-4**, **MV 4.23-5/2-5** and **MV 4.23-12/2-12** require the creation of a robust network of electric vehicle charging infrastructure.]*

- **Responding to demographic and housing market changes.** *[The Project-related development would accommodate a broad range of housing needs in the SCAG region through its provision of a variety of product types for various income and age levels, including affordable housing and age-qualified housing.]*
- **Supporting commerce, economic growth, and opportunity.** *[The Project-related development would support commerce, economic growth and opportunity in the SCAG region through its inclusion of land uses allowing for the establishment of new office and commercial retail development.]*
- **Promoting the links among public health, environmental protection, and economic opportunity.** *[The Project-related development would utilize a suite of design and mitigation strategies to comprehensively establish communities that: (i) maximize public health through incentives and opportunities to utilize alternative transportation modes; (ii) preserve the environment through the large-scale set aside of valuable open space areas; and, (iii) promote economic opportunity through the provision of land uses allowing for the establishment of new office and commercial retail development.]*

The 2016-2040 RTP/SCS continues the basic growth patterns included in the 2012-2035 RTP/SCS, such that future growth is forecasted to occur within both existing urban and undeveloped areas. Specifically, in terms of land consumption, the 2016-2040 RTP/SCS incorporates 118 square miles of greenfield development. Within the Project site, a total of approximately 1.97 square mile of land area would be developed. As the development facilitated by the Project is classified as greenfield development, on-site development would comprise 1.67 percent of the greenfield development area incorporated into the 2016-2040 RTP/SCS. In terms of the location of future development, a review of the 2016-2040 RTP exhibits again indicates that the Project site is an area of future population, employment, and household growth.

As the major themes that result in successful implementation of the 2016-2040 RTP/SCS are very similar to those that are set forth in the 2012-2035 RTP/SCS, the analysis of Project consistency with the 2012-2035 RTP/SCS provided above is also applicable to the 2016-2040 RTP/SCS. While the major themes remained constant between the 2012-2035 RTP and the 2016-2040 RTP/SCS, the individual strategies, actions, and policies set forth in the two plans are somewhat different. Accordingly, a detailed analysis of the Project's consistency with the individual actions, strategies, and policies set forth in the 2016-2040 RTP/SCS is presented in Table 2 of **Appendix 2.1-C**.

Based on the analysis presented above and in **Appendix 2.1-C**, the Mitigated Project is consistent with the 2016-2040 RTP/SCS and would not impair the SCAG region's attainment of CARB's SB 375-adopted reduction targets.

6. MITIGATION MEASURES

Based on the inventory data, in 2028, the Unmitigated Project's GHG emissions are broadly allocated to the following three types of emissions-generating activities: (1) approximately 22 percent of the emissions are from energy use in the built environment (i.e., the Project's homes and buildings); (2) approximately 75 percent of the emissions are from transportation (mobile) sources; and, (3) approximately 2.3 percent of the emissions are from one-time construction activities, including vegetation change.

When developing the mitigation measures, consideration was given to SCAQMD's locational preferences, which call for the selection of mitigation in the following order of preference: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within district; (4) off-site within state; and (5) off-site out of state. The Project's mitigation measures accord to SCAQMD's locational preferences by achieving approximately 57 percent of the estimated emissions reductions on the Project site, within the Santa Clarita Valley and/or within the County; the remaining 43 percent of the Project's emissions reductions would be secured through the Newhall Ranch GHG Reduction Plan, which focuses on direct investments in off-site GHG reduction programs within and outside of the State of California.

The following mitigation concepts also were identified as critical to aligning the Project's GHG emissions with the State's climate change policies, priorities, and objectives:

- **Zero Net Energy Development:** Substantial GHG emission reductions would be realized by committing the Project-related development to the achievement of ZNE homes, commercial buildings, private recreation centers and public facilities, as that standard is defined by the CEC. ZNE generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of the building's annual energy needs. This emissions reduction strategy aligns with the State of California's goal to achieve ZNE standards for new homes and commercial buildings; the CEC and California Public Utilities Commission (CPUC) have established a goal to achieve ZNE for new residential construction by 2020 and ZNE for new commercial construction by 2030. To facilitate the Project's achievement of this goal, the Project would increase on-site design efficiencies within the building envelopes and the amount of on-site rooftop solar energy, or otherwise deploy other forms of renewable energy. The Project's mitigation framework also calls for a building retrofit program to be implemented in disadvantaged communities in the County of Los Angeles, which would serve to reduce GHG emissions from existing buildings.
- **Zero Emission Transportation:** Accelerating the transition to ZEV technologies is one of the highest priorities of CARB and Governor Brown because the deployment of zero emission vehicles offers a 75 percent or greater net reduction in GHG emissions compared to conventional petroleum-based

internal combustion cars. CARB, the CEC and SCAQMD have identified in-home and public electric vehicle charging infrastructure as critically needed to increase the penetration of ZEVs throughout California. In order to facilitate zero emission transportation, the Project would: (i) provide electric vehicle charging infrastructure in every home, throughout the community's commercial areas, and at off-site locations within the County of Los Angeles; (ii) supplement existing consumer incentives to help lower the upfront costs associated with the purchase of ZEVs; and, (iii) subsidize the purchase of zero emission public transit buses and school buses.

- **Transportation Demand Management:** CARB, SCAG and other agencies have initiated programs to reduce vehicle miles traveled, which also serves to reduce GHG emissions. The Project would implement transportation demand management (TDM) strategies that reduce Project-related vehicle miles traveled. TDM strategies identified for implementation include, and are not limited to, the provision of mobility hubs, transit levers (e.g., subsidies), technology-based platforms (e.g., websites and apps), and school bus, car share and bike share programs.
- **Construction and Vegetation Change Emissions:** To mitigate the potential for GHG emissions impacts from the Project's construction activities and vegetation changes, the Project applicant or its designee will mitigate all one-time construction and vegetation change emissions to zero by funding activities that directly reduce or sequester GHG emissions or obtaining certified carbon credits.
- **Operational Carbon Neutrality:** To ensure that the Project's contribution to global climate change is not cumulatively considerable, the Project applicant or its designee will reduce to zero all of the Project's GHG emissions that remain after implementation of mitigation measures **MV 4.23-1/2-1** through **MV 4.23-12/2-12** through the Newhall Ranch GHG Reduction Plan (see Appendix F within **Appendix 2.1-A**). This mitigation commitment will result either in direct investments in GHG reduction activities that directly reduce or sequester GHG emissions in L.A. County, elsewhere in California and around the world, or the purchase and retirement of carbon offsets from a reputable and recognized carbon registry.

Importantly, the five concepts enumerated above, as well as the 13 mitigation measures set forth below, are identical to those recommended for system-wide implementation across the applicant's land holdings where development would be facilitated by CDFW's RMDP/SCP Project.[42] Accordingly, the mitigation measures that follow are preceded by a Mission Village-specific numerical prefix (i.e., MV 4.23-x), as well as a RMDP/SCP Project-specific numerical prefix (i.e., 2-x). The italicized text provided in the parentheticals following each mitigation measure provides relevant Mission Village Project-specific details and clarifications.

Consistent with the above, the specific mitigation measures recommended for adoption by the County and inclusion in the Project's Mitigation Monitoring and Reporting Program (MMRP) are as follows:

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[42] The RMDP/SCP Project's geographic boundaries encompass three planning areas: the Newhall Ranch Specific Plan, Valencia Commerce Center, and Entrada. As previously discussed, the Mission Village Project is one of five inter-related, mixed-use villages located within the Newhall Ranch Specific Plan area proposed for development by the applicant.

MV 4.23-1/2-1: Prior to the issuance of residential building permits, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the residential development within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or greenhouse gas emissions savings.

A ZNE Report may, but is not required to:

- Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and commercial buildings within a neighborhood/community, or a subset thereof.
- Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE.
- Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-2/2-2: Prior to the issuance of building permits for commercial development and private recreation centers, and prior to the commencement of construction for the public facilities, respectively, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the commercial development, private recreation centers, and public facilities within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations have been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or GHG gas emissions savings.

("Commercial development" includes retail, light industrial, office, hotel, and mixed-use buildings. "Public facilities" are fire stations, libraries, and elementary, middle/junior high and high schools.)

A ZNE Report may, but is not required to:

- Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and non-residential buildings within a neighborhood/community, or a subset thereof.
- Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, short falls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE.
- Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-3/2-3: Prior to the issuance of private recreation center building permits, the project applicant or its designee shall submit swimming pool heating design plans to Los Angeles County for review and approval. The design plans shall demonstrate that all swimming pools located at private recreation centers on the RMDP/SCP project site have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-4/2-4: Prior to the issuance of residential building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County for review and approval, which demonstrate that each residence within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations shall be equipped with a minimum of one single-port electric vehicle (EV) charging station. Each charging station shall achieve a similar or better functionality as a Level 2 charging station.

Additionally, prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall establish and fund a dedicated account for the provision of subsidies for the purchase of ZEVs, as

defined by ARB. The project applicant or its designee shall provide proof of the account's establishment and funding to Los Angeles County.

The dedicated account shall be incrementally funded, for each village-level project, in an amount that equals the provision of a $1,000 subsidy per residence – on a first-come, first-served basis – for 50 percent of the village's total residences subject to application of Title 24, Part 6, of the California Code of Regulations.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-5/2-5: Prior to the issuance of commercial building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County, which demonstrate that the parking areas for commercial buildings on the RMDP/SCP project site shall be equipped with EV charging stations that provide charging opportunities to 7.5 percent of the total number of required parking spaces. ("Commercial buildings" include retail, light industrial, office, hotel, and mixed-use buildings.)

The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station. In the event that the installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-6/2-6: The project applicant-submitted Newhall Ranch Transportation Demand Management Plan (TDM Plan), located in Technical Report Appendix E contained in AEA Appendix 1, shall be implemented to reduce VMT resulting from project build out with oversight from Los Angeles County. The TDM Plan is designed to influence the transportation choices of residents, students, employees, and visitors, and serves to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, expanded transit opportunities, bikeshare and carshare programs, technology-based programs, and other innovative means. Implementation of relevant elements of the TDM Plan will be included as a condition of approval by Los Angeles County when approving tentative subdivision maps for land developments that are part of the project.

Accordingly, the TDM Plan identifies key implementation actions that are critical to the effectiveness of the VMT-reducing strategies, as well as timeline and phasing requirements, monitoring standards, and performance metrics and targets tailored to each of the strategies.

In accordance with the TDM Plan, a non-profit Transportation Management Organization (TMO) or equivalent management entity shall be established to provide the services required, as applicable.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-7/2-7: Prior to the issuance of traffic signal permits, the project applicant or its designee shall work with Los Angeles County and the California Department of Transportation (Caltrans), as applicable, to facilitate traffic signal coordination along:

- State Route 126 from the Los Angeles County line to the Interstate 5 north-bound ramps;
- Chiquito Canyon Road, Long Canyon Road, and Valencia Boulevard within the RMDP/SCP project site;
- Magic Mountain Parkway from Long Canyon Road to the Interstate 5 north-bound ramps; and
- Commerce Center Drive from Franklin Parkway to Magic Mountain Parkway.

To effectuate the signal synchronization and specifically the operational and timing adjustments needed at affected traffic signals, the project applicant or its designee shall submit traffic signal plans for review and approval, and/or pay needed fees as determined by Los Angeles County or Caltrans, as applicable.

A majority of the signals that will be synchronized will be new signals constructed/installed by the project. Thus, for these signals, the project will provide the necessary equipment at the signal controller cabinet, as well as within the new roadways themselves, to enable and facilitate synchronization. The project is responsible for paying 100 percent of the applicable fee amount for the signal synchronization work, with assurance that the necessary funding will be available to fully implement this measure.

(For purposes of the Mission Village Project, the following roadway segments shall be subject to traffic signal synchronization improvements: (a) Commerce Center Drive from SR-126 to Magic Mountain Parkway; and, (b) Magic Mountain Parkway (within the Mission Village boundary).)

MV 4.23-8/2-8: Consistent with the parameters of the Newhall Ranch TDM Plan, the project applicant or its designee shall provide Los Angeles County with proof that funding has been provided for the purchase, operation and maintenance of electric school buses in furtherance of the school bus program identified in the project's TDM Plan. The proof of funding shall be demonstrated incrementally as the school bus program is paced to village-level occupancy and student enrollment levels.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-9/2-9: Prior to the issuance of the first 2,000th residential building permit within the RMDP/SCP project site and every 2,000th residential building permit thereafter, the project applicant or its designee shall provide Los Angeles County with proof that it has provided a subsidy of $100,000 per bus for the replacement of up to 10 diesel or compressed natural gas transit buses with electric buses to the identified transit provider(s).

(The Mission Village Project shall be responsible for its proportional share of the referenced subsidies.)

MV 4.23-10/2-10: Prior to issuing grading permits for village-level development within the RMDP/SCP project site, Los Angeles County shall confirm that the project applicant or its designee shall fully mitigate the related construction and vegetation change GHG emissions (the "Incremental Construction GHG Emissions") by relying upon one of the following compliance options, or a combination thereof, in accordance with the project applicant-submitted Newhall Ranch GHG Reduction Plan (GHG Reduction Plan; see Technical Report Appendix F contained in AEA Appendix 1):

- Directly undertake or fund activities that reduce or sequester GHG emissions and retire the associated GHG reduction credits in a quantity equal to the Incremental Construction GHG Emissions; or
- Obtain and retire carbon credits that have been issued by a recognized and reputable carbon registry, as described in the GHG Reduction Plan, in a quantity equal to the Incremental Construction GHG Emissions.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-11/2-11: Prior to the issuance of building permits for every 100 residential units or 100,000 square feet of commercial development for each village-level project, the project applicant or its designee shall provide proof of funding of the proportional percentage of the Building Retrofit Program (Retrofit Program), as included in Technical Report Appendix G contained in AEA Appendix 1, to Los Angeles County. ("Commercial development" includes retail, light industrial,

office, hotel and mixed-use buildings.) Building retrofits covered by the Retrofit Program can include, but are not limited to: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting (including, but not limited to, light bulb replacement), energy efficient appliances, energy efficient windows, insulation, and water conservation measures.

The Retrofit Program shall be implemented within the geographic area defined to include Los Angeles County and primarily within disadvantaged communities, as defined by the Retrofit Program, or in other areas accepted by the Los Angeles County Planning Director.

Funding shall be applied to implement retrofits strategies identified in the Retrofit Program or other comparable strategies accepted by the Los Angeles County Planning Director.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-12/2-12: Prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall provide Los Angeles County with proof of installation of EV charging stations capable of serving 20 off-site parking spaces. Thereafter, the project applicant or its designee shall provide Los Angeles County proof of installation of EV charging stations prior to the issuance of residential and commercial building permits per the following ratios: one (1) off-site parking space shall be served by an electric vehicle charging station for every 30 dwelling units, and one (1) off-site parking space shall be served by an electric vehicle charging station for every 7,000 square feet of commercial development. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Off-site EV charging stations capable of servicing 2,036 parking spaces would be required if the maximum allowable development facilitated by the RMDP/SCP project occurs; fewer EV charging stations would be required if maximum build-out under the RMDP/SCP project does not occur.

The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station and may service one or more parking spaces. In the event that the installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour.

The EV charging stations shall be located within the geographic area defined to include Los Angeles County, and in areas that are generally accessible to the

public. For example, the charging stations may be located in areas that include, but are not limited to, retail centers, employment centers, recreational facilities, schools, and other categories of public facilities.

(This mitigation measure applies to Mission Village without change.)

MV 4.23-13/2-13: In addition to Mitigation Measures 2-1 through 2-12, the project applicant shall offset GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or, if necessary, obtaining carbon credits through the Newhall Ranch GHG Reduction Plan. The project applicant-submitted Newhall Ranch GHG Reduction Plan focuses on achieving GHG reductions or sequestration through the direct investment in specific programs or projects in coordination with an accredited carbon registry, such as the Climate Action Reserve. If these direct investment efforts do not achieve an adequate amount of GHG reductions, the project applicant can obtain carbon credits from accredited carbon registries.

SCAQMD recommends that mitigation be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within district; (4) off-site within state; and (5) off-site out of state (SCAQMD 2008).

Prior to issuing building permits for development within the project site, Los Angeles County shall confirm that the project applicant or its designee shall fully offset the project's remaining (i.e., post implementation of Mitigation Measures 2-1 through 2-12) operational GHG emissions over the 30-year project life associated with such building permits ("Incremental Operational GHG Emissions) by relying upon one of the following compliance options, or a combination thereof, in accordance with the Newhall Ranch GHG Reduction Plan:

- Demonstrate that the project applicant has directly undertaken or funded activities that reduce or sequester GHG emissions ("Direct Reduction Activities") that are estimated to result in GHG reduction credits, as described in the GHG Reduction Plan, and retire such GHG reduction credits in a quantity equal to the Incremental Operational GHG emissions;
- Provide a guarantee that it shall retire carbon credits issued in connection with Direct Reduction Activities in a quantity equal to the Incremental Operational GHG emissions;
- Undertake or fund Direct Reduction Activities and retire the associated carbon credits in a quantity equal to the Incremental Operational GHG Emissions; or

- If it is impracticable to fully offset Incremental Operational Emissions through the Direct Reduction Activities, the project applicant or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the Incremental Operational GHG Emissions.

Compliance with MM 2-13 shall be demonstrated incrementally prior to obtaining building permits, and shall in the context of the project overall follow the preferred geographic hierarchy recommended by SCAQMD, discussed above. Incremental Operational GHG emissions shall be equal to the sum of the number of proposed residential units covered by the applicable building permit multiplied by 88.13 MT CO_2e and every thousand square feet of proposed commercial development covered by the applicable building permit multiplied by 367.90 MT CO_2e.

(This mitigation measure applies to Mission Village without change, with the exception that the emissions reduction rates specified in the mitigation measure for residential and commercial building permits have been modified to reflect the Project-specific emissions analysis presented in ***Appendix 2.1-A*** *and equate to those rates of emissions reductions needed to ensure that Project emissions are reduced to zero.)*

7. SUMMARY OF CONCLUSIONS

As summarized in **Table 2.1-4**, Summary of Project Impacts, below, with implementation of mitigation measures **MV 4.23-1/2-1** through **MV 4.23-13/2-13**, the Project would cause *no net increase* in GHG emissions. Because the Project, as mitigated, would result in no net increase in the GHG emissions level, the Project would not have a significant impact on global climate change. In addition, because the Project would not increase net GHG emissions above existing levels following implementation of the thirteen recommended mitigation measures, it would not conflict with any adopted and applicable local or State plans, policies or regulations to reduce GHG emissions in 2020, 2030 and/or 2050, all of which utilize non-zero targets (and thereby allow for some level of emissions for land use developments to accommodate projected growth) to reduce the State's cumulative contribution to global climate change.

Table 2.1-4
Summary of Project Impacts

Threshold	Significance Determination
Threshold 2.1-1	Less than significant with mitigation
Threshold 2.1-2	Less than significant with mitigation

2.2 TAKE AVOIDANCE OF THE FULLY-PROTECTED UNARMORED THREESPINE STICKLEBACK

1. INTRODUCTION

As discussed above, the California Supreme Court held that the "collect" and "relocate" activities contemplated in the CDFW-approved mitigation measures BIO-44 and BIO-46 from the related Newhall Ranch RMDP/SCP project constituted "take" of unarmored threespine stickleback in violation of California Fish and Game Code section 5515. The Supreme Court did not, however, invalidate the 2010 FEIR's analysis of Project impacts on unarmored threespine stickleback for purposes of CEQA; only the two mitigation measures were invalidated. Accordingly, the RMDP 2010 FEIR's analysis of impacts on unarmored threespine stickleback for purposes of CEQA remains valid.

In response to the Supreme Court's decision, CDFW is proposing to eliminate mitigation measures BIO-44 and BIO-46 by adopting modified "no water contact" construction methods for the Commerce Center Drive bridge and bank stabilization. The proposed modified construction methods do not change the location, size, or proposed use of the permanent Commerce Center Drive bridge or the bank stabilization features. Instead, the modified construction methods adjust only the timing and construction techniques to ensure no work takes place in the wetted channel of the Santa Clara River where unarmored threespine stickleback might be affected. Because Mission Village mitigation measures MV 4.3-8 and MV 4.3-9 are similar to RMDP measures BIO-44 and BIO-46, the County is proposing to eliminate them as well, along with four other related mitigation measures.[1]

Specifically, the proposed modified "no water contact" construction methods preclude construction work in the wetted channel of the Santa Clara River, and thereby avoid the need for stream diversion and other activities that may lead to fish stranding. This, in turn, would eliminate any need to collect or relocate stickleback. Such modifications would include placing limits on the seasonal timing of construction activities so that work nearest the wetted channel would occur during the driest periods of the year. Construction schedules would be based upon the potential for inundation due to proximity to the wetted channel. The proposed modified construction methods adjacent to the wetted channel, such as

1 The elimination of bridge construction work in the wetted channel of the Santa Clara River also would render the following Mission Village mitigation measures unnecessary: MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12. These measures, along with MV 4.3-8 and MV 4.3-9, have been removed from the Mission Village Errata to Mitigation Monitoring and Reporting Program (MMRP). MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12 would no longer be necessary because they also were intended to address impacts associated with construction work performed in the wetted channel of the Santa Clara River. These impacts would be avoided with the proposed modified construction methods described in this document.

installation of a bridge pier, would have a shorter construction window than those facilities that are constructed farther away, such as the bank stabilization.

This section analyzes:

- Whether the modified construction methods for Commerce Center Drive bridge and bank stabilization can be implemented consistent with Fish and Game Code section 5515.
- Whether the modified construction methods would result in new significant impacts or substantially increase the severity of previously identified significant impacts in the Mission Village 2011 FEIR on unarmored threespine stickleback or other potentially affected biological resources.

The Mission Village 2011 FEIR evaluated all impacts associated with the other components of the project, including impacts to biological resources other than unarmored threespine stickleback. The Mission Village 2011 FEIR's conclusions regarding such impacts either were not challenged in any judicial proceeding or were upheld by the courts in the Mission Village litigation. In either case, those conclusions are deemed valid and no longer subject to additional litigation; therefore, they are not reevaluated in this section. Therefore, this section is limited to review of the two topics identified in the immediately preceding bullets.

Accordingly, this section updates the stickleback-related biological impacts analysis of the Mission Village 2011 FEIR. In addition, the County-adopted Mitigation Monitoring and Reporting Program (MMRP) must be amended to reflect the elimination of mitigation measures MV 4.3-8 and MV 4.3-9, as well as four other mitigation measures (MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12).2

This section presents the County's independent impact analysis of the proposed modified construction methods for Commerce Center Drive bridge and bank stabilization, but it relies on technical studies conducted in 2016 by CDFW to address the Supreme Court's decision for the related Newhall Ranch RMDP/SCP project. Specifically, this section relies on Moffatt & Nichol's technical memorandum, dated October 2016, a copy of which is included in **Appendix 2.2-A** of this document. The Moffatt & Nichol technical memorandum considers data generated by consulting engineers at Geosyntec regarding the Santa Clara River's hydrology and non-winter peak flows. The Geosyntec data are summarized in a technical memorandum, dated October 2016, a copy of which is included as an attachment to **Appendix 2.2-A** of this document. In addition, this section relies on the ICF International/R2 Resource Consultants Inc. (ICF/R2) *Assessment of Construction-Related Impacts on Fish in the Santa Clara River*, dated October 2016, a copy of which is included in **Appendix 2.2-B** of this document.

2 See footnote 1, above.

2. BACKGROUND

The Mission Village Project ("Mission Village" or "Project") is part of the Newhall Ranch Specific Plan, which the County of Los Angeles approved in 2003. The Specific Plan requires other permitting for improvements necessary for the project's implementation. For this reason, in 2004, the applicant submitted state permit applications to the California Department of Fish and Wildlife (CDFW) for the Newhall Ranch RMDP/SCP that would authorize installation of the necessary improvements for the Specific Plan and provided the basis for CDFW-issued permits, including a Master Streambed Alteration Agreement and two Incidental Take Permits.3 These improvements, included but were not limited to, infrastructure elements located in and along the Santa Clara River including (i) a permanent bridge across the Santa Clara River at Long Canyon Road, (ii) a permanent bridge across the Santa Clara River at Commerce Center Drive, (iii) two temporary haul routes across the Santa Clara River near Long Canyon Road, and (iv) bank stabilization along portions of the banks of the Santa Clara River. The Commerce Center Drive bridge and required bank stabilization would be installed as part of the Mission Village project.

In 2010, CDFW certified the Final EIR (FEIR) for the Newhall Ranch RMDP/SCP Project (RMDP 2010 FEIR; SCH No. 2000011025).4 The RMDP 2010 FEIR analyzed the potential impacts of the proposed bridges, haul routes, and bank stabilization on numerous environmental resources, including hydrology, water quality, stream morphology, and biology situated in or along the Santa Clara River. As to sensitive biota resources, the RMDP 2010 FEIR included an assessment of infrastructure impacts on the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), which is a federal-listed endangered species, a state-listed endangered species, and a California "fully protected" species endemic to the Santa Clara River.

Because CDFW'S RMDP 2010 FEIR determined that construction of the RMDP bridges, haul routes, and bank stabilization would have potentially significant impacts on the unarmored threespine stickleback, CDFW adopted mitigation measures designed to reduce those impacts to less-than-significant levels under CEQA and avoid "take" of the species under the California Endangered Species Act and the Fish and Game Code "fully protected" species statute (Fish & Game Code section 5515).5 Two of those mitigation

3 The RMDP and SCP are herein incorporated by reference and available for public review and inspection upon request to the County's Department of Regional Planning.

4 The project approved by CDFW in December 2010 included a Spineflower Conservation Plan (SCP) for the benefit of San Fernando Valley spineflower, a state-endangered plant species found on Newhall Ranch and the Valencia Commerce Center and Entrada planning areas. However, because the SCP does not affect the Santa Clara River or unarmored threespine stickleback, this portion of the document focuses exclusively on the RMDP infrastructure impacts to stickleback.

5 Fish and Game Code section 86 defines "take" to mean hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

measures – BIO-44 and BIO-46 – authorized qualified biologists working under the supervision of the United States Fish and Wildlife Service (USFWS) to collect and relocate any unarmored threespine stickleback that might become stranded during stream diversion or dewatering activities, both of which were part of the original construction program for bridges, haul routes, and bank stabilization.

The County's Mission Village 2011 Final EIR also addressed the effects of bridge construction and bank stabilization would have on biotic resources, including the unarmored threespine stickleback. Like CDFW, the County concluded that such impacts could be significant and required mitigation. To be consistent with the stickleback mitigation already adopted by CDFW in December 2010, the County adopted mitigation measures MV 4.3-8 and MV 4.3-9, which mirror RMDP BIO-44 and BIO-46, respectively, and authorized stickleback to be collected and relocated to prevent stranding during dewatering and stream diversion activities.

3. REGULATORY SETTING

The unarmored threespine stickleback is listed as an endangered species under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA).

The unarmored threespine stickleback is also listed as fully protected under Fish and Game Code Section 5515(b)(9), which was CDFW's initial effort in the 1960s to identify and provide protection to animals that were rare or faced possible extinction.

Although the California Endangered Species Act provides for the "incidental take" of endangered species (see Fish and Game Code section 2081), Fish and Game Code section 5515(a) prohibits the take of fully-protected species. For this reason, a project applicant cannot apply for or obtain an incidental take permit for fully-protected species such as the unarmored threespine stickleback. Instead, take of such species is allowed only when it occurs pursuant to a scientific research permit or a Natural Communities Conservation Program. (Fish & Game Code sections §§ 5515(a), 2835.) The Mission Village project does not seek a scientific research permit or fall within an adopted Natural Communities Conservation Plan. Thus, the two "take" exceptions do not apply.

As described below, however, the Mission Village project would avoid "take" of unarmored threespine stickleback, consistent with the Supreme Court's decision in the related Newhall Ranch RMDP/SCP project and Fish and Game Code section 5515.

4. LIFE HISTORY OF UNARMORED THREESPINE STICKLEBACK

Although historically widespread throughout the Los Angeles basin, the unarmored threespine stickleback is currently found in few locations, all of which are situated outside of the Los Angeles River basin (Swift

et al. 1993). The predominant location is the upper Santa Clara River (Entrix, June 2010).6 The unarmored threespine stickleback is known to reside at times in the Mission Village reach or segment of the River.

The Mission Village reach is comprised of the mainstem of the Santa Clara River from Salt Canyon to Potrero Canyon (Reach A), Potrero Canyon to Chiquito Canyon (Reach B), Chiquito Canyon to Middle Canyon (Reach C), and Middle Canyon to the Valencia Water Reclamation Plant (WRP) (Reach D).

The unarmored threespine stickleback is a small territorial fish that can grow up to a maximum of approximately four inches in length (Entrix, June 2010; CDFG 2000). The USFWS (1985) notes that the unarmored threespine stickleback can be found in all areas of streams, but prefers slow-moving and standing water or water behind obstructions, at the edge of streams, or in vegetation when the water is moving faster. Similar to other threespine stickleback species, male unarmored threespine sticklebacks create a nest in slow-moving water, by gluing together bits of vegetation, such as grass and sticks, using a kidney-secreted protein, and will vigorously defend the established nest territory. The amount of suitable breeding habitat may be a limiting factor in the population of the unarmored threespine stickleback (Entrix, June 2010; CDFG 2000). The unarmored threespine stickleback lives for about one year, and few if any survive to breed again (Entrix, June 2010; USFWS 1985, ESIS 1996).

Studies indicate that threespine stickleback can withstand flow velocities of less than or equal to 60 centimeters per second (cm/s), which equates to 2 feet per second (fps), provided a coarse substrate is present (Entrix 2010, citing Whoriskey and Wooton 1987). When flow velocities exceed these parameters, or if no coarse substrate is present, threespine stickleback will likely be washed downstream (*Id*.). Based on these studies, the unarmored threespine stickleback in the Santa Clara River require flood refugia velocities of 2 fps or less in order to avoid being washed downstream in flood events. During flood events, areas maintaining velocities of less than or equal 2 fps would act as the preferred refuge during storm events. Such refugia are important given that most of the Santa Clara River and its adjacent floodplain contain flows greater than 2 fps under existing conditions.

5. EXISTING ENVIRONMENTAL SETTING

a. Project Environmental Setting

The Mission Village project would implement a portion of the Newhall Ranch Specific Plan, approved by the County Board of Supervisors in 1999 and 2003. The Mission Village project site is located in the Santa

6 The unarmored threespine stickleback does not reside in any tributary drainages affected by the Project, including the tributary drainages of the Santa Clara River, because: (i) survey results indicate limited amounts of aquatic habitat were present in 10 of the 23 tributary drainages within the Newhall Ranch RMDP area; and (ii) the remaining tributaries consist of dry, ephemeral drainages with no observable aquatic habitat or potential aquatic habitat. (Entrix Memo, June 2007.)

Clarita Valley (an unincorporated portion of the County), and approved for the development of residential, mixed-use, and commercial land uses and associated amenities.

The Mission Village "tract map site" refers to the geographic area depicted on the tract map, while the "project site" consists of both the tract map site and other areas subject to improvements, including off-site infrastructure, needed to facilitate development of Mission Village. Overall, the Mission Village site is approximately 1,860 acres.

Mission Village also includes facilities and infrastructure proposed to support the project, such as the Commerce Center Drive bridge, trails, drainage improvements, flood protection (including buried bank stabilization within and adjacent to the Santa Clara River), potable and recycled water systems (including water tanks), sanitary sewer and dry utility systems. To facilitate development of the Mission Village tract map site (VTTM 61105), several off-site project-related improvements (i.e., improvements outside the tract boundary) would be developed on additional land within the Newhall Ranch Specific Plan. For purposes of this EIR, the “tract map site” refers to the proposed location of the Mission Village development site itself, and the “project site” refers to the tract map site and off-site improvements.

The Mission Village EIR, Figure 1.0-1, **Regional Location**, illustrates the location of the Mission Village project site within a regional context. **Figure 1.0-2**, **Project Vicinity Map**, shows that the project site, located in unincorporated Los Angeles County, is within the approved Newhall Ranch Specific Plan boundary.

The biological resources that occur in the Mission Village project site study area are adapted to a Mediterranean climate characterized by cool, wet winters and hot, dry summers. Rainfall occurs primarily between October and March, with the heaviest rainfall occurring in mountainous regions in the Angeles and Los Padres National Forests. According to the Piru-2 ESE weather station in Los Angeles County, the mean annual rainfall for the region is 17.4 inches of rain per year (WRCC 2008); however, some sections of the planning area remain in the rain shadow of the Santa Susana Mountains and receive considerably less rainfall than areas north of the Santa Clara River.

On a more local scale, the Santa Clara River corridor is considered a regionally important habitat linkage, and the area supports numerous state- and federal-listed species, including the least Bell's vireo and the unarmored threespine stickleback. Maintenance of habitat quality and wetland functions and services of the Santa Clara River corridor is considered important for species utilizing this area.

b. Existing Conditions in the Santa Clara River

(1) Hydrological Conditions

The Santa Clara River originates near Acton in Soledad Canyon in the San Gabriel Mountains and empties into the Pacific Ocean near Ventura, about 84 miles from its origin. Ninety percent of the watershed consists of mountainous terrain with steep, rocky ridges, and deep canyons. Only 10 percent of the watershed consists of narrow alluvial valleys. The Newhall Ranch Specific Plan, which includes Mission Village, is within a gently sloping alluvial valley that extends downstream from Castaic Creek to the Los Angeles County/Ventura County line.

The Santa Clara River flows along the northern boundary of the Specific Plan, and is perennial within the Mission Village project site reach. Tributaries in the Mission Village reach are ephemeral (flow lasting a very short time).[7] (Entrix Memo 2007; Entrix, June 2010.) Note, however, that the aquatic habitat in the tributaries is not adequate to support unarmored threespine stickleback and, as a result, no unarmored threespine stickleback reside in these drainages. Stream flow in the Specific Plan area is often debris laden because of intense rainfall patterns; relatively impervious soil types in the upper watershed; sparse vegetation in the upper watershed; possible denudation by fires; and steep gradients.

The mean annual precipitation for the Santa Clara River watershed ranges from 16 inches in the valley areas to about 36 inches in the mountains. Most precipitation occurs from December through March. Three types of storms produce precipitation in the watershed: winter storms, infrequent summer storms, and local storms. Winter storms occur generally from December through March. They originate over the Pacific Ocean due to interaction between polar Pacific and tropical Pacific air masses that move eastward across California. These storms may last several days and respond greatly to changes in topography. Summer storms are infrequent and usually associated with late-summer cyclones, producing very little precipitation. Local storms can occur at any time of the year. These storms are frequently accompanied by lightning and thunder. They affect only small areas, but can result in significant precipitation.

Natural Streamflow. During most of the year, the Santa Clara River experiences only negligible increases in streamflow due to natural precipitation, except during or immediately after moderate to heavy storms. Streamflow increases rapidly in response to effective rainfall. Effective rainfall is the component of the storm hyetograph (depicts precipitation and associated peak runoff over time), which is neither retained on the land surface nor which infiltrates into the soil.[8] After effective rainfall terminates, streamflow

7 Unarmored threespine stickleback do not reside in the affected tributaries; all unarmored threespine stickleback reside in the mainstem of the Santa Clara River.

8 Effective rainfall is the component of the storm hyetograph (depicts precipitation and associated peak runoff over time), which is neither retained on the land surface nor which infiltrates into the soil. The effective rainfall produces overland flow that results in the direct runoff.

drops abruptly due to percolation losses in the alluvial channels. Extreme runoff events are generally produced by intense rainfall over a relatively short period of time. Melting snow in the upper watershed has very little influence on streamflow.

Flows in the Santa Clara River also can be affected by groundwater dewatering operations or by stream diversions. Throughout the Santa Clara River channel, complex surface water/groundwater interactions cause some segments of the River to move underground only to resurface at another location. In particular, downstream of the Los Angeles County/Ventura County line, the Santa Clara River flows into the Piru groundwater basin, which forms a natural "Dry Gap" where dry-season streamflow is lost to groundwater.

As with most southern California streams, flows in the Santa Clara River are highly episodic. For the gauged period between 1953 and 1996, annual flow at the Los Angeles County/Ventura County line gage ranged between 253,000 acre-feet (1969) and 561 acre-feet (1961). Annual peak flows at the County line between 1953 and 1996 ranged from 68,800 cfs (1969) to 109 cfs (1960). The second highest annual peak, 32,000 cfs in 1966, was less than half of the highest peak (68,800 cfs in 1969).

Artificial Streamflow. Artificial streamflow in the Specific Plan area is derived from three sources: (i) runoff from irrigated agricultural fields (croplands) and upstream urban areas; (ii) discharges of tertiary-treated effluent from two existing upstream water reclamation plants; and, (iii) releases from Castaic Lake.

Irrigated agricultural land occurs north of the Santa Clara River upstream of the Specific Plan area near Six Flags Magic Mountain Amusement Park and on the north and south side of the Santa Clara River within the Specific Plan area. The amount and seasonality of cropland runoff are variable. As cropland is converted to urban uses, discharges from agricultural irrigation operations will decrease.

Two existing regional water reclamation plants occur upstream of the Specific Plan area and are operated by the County Sanitation Districts of Los Angeles County (Districts). These plants discharge tertiary-treated wastewater to the Santa Clara River, and are interconnected to provide operational flexibility. The Saugus WRP outfall for treated effluent is located near Bouquet Canyon Road bridge on the Santa Clara River. The Saugus WRP produces about 5 million gallons per day (mgd) of effluent that is discharged to the River. It contributes to perennial flows from the outfall to approximately I-5. The current plant capacity is 6.5 mgd. The Valencia WRP outfall is located immediately downstream of the I-5 bridge. The Valencia WRP produces about 9 mgd of treated effluent and has a capacity of 12.6 mgd. The plant discharge also creates perennial flow that extends from the outfall to the confluence of the Santa Clara River with Castaic Creek and downstream.

Castaic Lake is a terminal dam/reservoir of the State Water Project (SWP) and is operated by the California Department of Water Resources (DWR). Local storms that generate surface flows captured by Castaic dam/reservoir are released to Castaic Creek in accordance with agreements between DWR and downstream water users. By agreement, DWR releases water from the reservoir to Castaic Creek at a discharge rate up to a maximum of 100 cfs.

During the dry season (defined here as June 1 through September 30), Santa Clara River flows through the Project reach at an approximate maximum of 500 cfs (Geosyntec 2016.) During the early portion of the dry season (June-July), releases from Castaic Dam may cause slightly higher flows while during the later dry season (August-September), rain events account for the heavier flow range.

The Wetted Channel. The wetted channel is the portion of a stream channel that is covered in water at any given time. The width of the wetted channel fluctuates with hydrologic changes (i.e., season to season). The bankfull channel describes the high-flow condition where the volume of flow, the flow width, or depth fills the channel just before beginning to spill onto the flood plain. The Santa Clara River has a broad, alluvial channel and floodplain. During the dry season, when the river experiences low flows, the wetted channel is restricted to a relatively narrow course along the lowest profile alignment within the bankfull channel.

The highest estimated, dry-season flow is approximately 500 cfs. For this hydrologic condition, the width of the wetted channel in the location of Commerce Center Drive bridge is approximately 90 feet to 125 feet (PACE 2016a). Because 500 cfs represents the highest expected flow during the dry season, this condition is used as a design criterion for the placement of bridge piers. Based on the geometry and gradient of the Santa Clara River in these locations, the approximate 500 cfs peak flow would result in an inundated area less than 165 feet in width (PACE 2016a, p. 1). As explained below, this is important because the proposed bridge construction methods contemplate bridge piers placed at least 165 feet apart, which would span the wetted channel at these locations during this highest dry-season flow condition.

(2) Habitat Conditions in the Santa Clara River As They Relate to Unarmored Threespine Stickleback

Entrix (June 2010) conducted surveys for the unarmored threespine stickleback in 2004 and 2005 within the Specific Plan "reaches" (i.e., segments) of the Santa Clara River — including the reach along the Mission Village boundary – to determine (i) presence/absence of habitat suitable for unarmored threespine stickleback, and (ii) presence/absence of unarmored threespine stickleback individuals. The Entrix surveys targeted habitat attributes between Salt Creek Canyon and The Old Road bridge – which includes the Mission Village reach of the River – and recorded habitat type, length and mean width, mean

and maximum depth, substrate composition, water and air temperature, and percent edgewater vegetation. The edgewater generally consists of shallow, low water velocity areas found along the margins of the Santa Clara River. The vegetation in the edgewater is an important habitat feature utilized by stickleback for cover, feeding, spawning, and velocity refuge. (Entrix, June 2010.) Based on its surveys, Entrix made the following findings with regard to five reaches or segments of the River:

> *Reach A* of the Santa Clara River, between Salt Canyon and Potrero Canyon, consists of a broad, flat sandy floodplain with minimal riparian vegetation. Certain off-site improvements connected to the Mission Village project will be located adjacent to this reach. The general mesohabitat structure of Reach A was composed primarily of riffles and runs with no pools. According to surveys conducted in September 2005, unarmored threespine stickleback habitat was minimally present in this reach due to a lack of pools, backwater habitats, and the presence of high velocity flows over newly deposited substrate. Edgewater vegetation, preferred by unarmored threespine stickleback, exists throughout this reach and will become increasingly lush over time notwithstanding episodic flood and scour events. No unarmored threespine stickleback were observed in this reach during the September 2005 surveys, but a number of individuals were observed during surveys conducted in June 2002.
>
> *Reach B* of the Santa Clara River, between Potrero Canyon and Chiquito Canyon, is similar to Reach A in its physical channel structure and habitat composition. Reach B is adjacent to portions of the Mission Village project. Minimal unarmored threespine stickleback habitat exists in this reach because of a lack of pools, backwater habitats, and the presence of high velocity flows over newly deposited substrate. Edgewater vegetation, preferred by stickleback, was present throughout the reach and will become increasingly lush over time notwithstanding episodic flood and scour events notwithstanding episodic flood and scour events. No unarmored threespine stickleback were observed in this reach during the September 2005 surveys, but a number of individuals were observed during surveys conducted in June 2002.
>
> *Reach C* of the Santa Clara River, which runs from Chiquito Canyon to Middle Canyon, is similar to Reaches A and B in terms of physical channel structure and habitat composition. Reach C is adjacent to portions of the Mission Village project. Edgewater vegetation, preferred by stickleback, was present throughout the reach and will become increasingly lush over time notwithstanding episodic flood and scour events. No unarmored threespine stickleback were observed in this reach during the September 2005 surveys, but a number of individuals were observed during surveys conducted in June 2002.

Reach D of the Santa Clara River, between Middle Canyon and the Valencia Water Treatment Plant, includes areas adjacent to and upstream and outside of the Mission Village project area. Reach D differs from the other three reaches in terms of habitat and substrate composition. This reach retained some vegetation as well as associated pool habitats following the flood events in 2004 and 2005. Although sand is the dominant substrate type, gravel and cobble substrate are prominent as well. Surveys conducted in September 2005 noted that the channel bed had been destabilized by recent sediment depositions, resulting in large sandy runs, although a few pools and riffles were still evident. Flow velocities are fast in the riffle and run habitats, which are not preferred by stickleback. Edgewater vegetation exists throughout this reach but there is a lack of backwater habitat preferred by unarmored threespine stickleback. Edgewater vegetation, preferred by stickleback, was present throughout the reach and will become increasingly lush over time notwithstanding episodic flood and scour events. No unarmored threespine stickleback were observed in this reach during the September 2005 surveys, but a number of individuals were observed during surveys conducted in May 2000 and June 2002.

Near Reach D is a spring-fed channel commonly referred to as "the refuge." This area was surveyed in 2005 as well. During the surveys, a number of young unarmored threespine stickleback were observed. This observation was consistent with other records showing that this spring-fed wetland has historically provided unarmored threespine stickleback refugia from high flow events. Like Reach D, "the refuge" is upstream of the Commerce Center Drive bridge and outside the Project area.

Reach E of the Santa Clara River, between the Valencia WRP and The Old Road bridge, is upstream of and outside the Mission Village project area. Flow in this reach is considerably less than the downstream reaches due to its location upstream of the Valencia WRP effluent. Surveys conducted in September 2005 indicated that riparian vegetation in this reach had been largely carried away by the 2004-2005 flood events. The general habitat structure in this reach consists of riffles and runs, with no pools. Aquatic habitat for unarmored threespine stickleback is fair due to the presence of low velocity flow and some edgewater vegetation. Nevertheless, a lack of pool and backwater habitats limit the reach's value to unarmored threespine stickleback, which likely explains why no unarmored threespine stickleback were observed in this area during the September 2005 surveys. Note, however, that surveys conducted in 2000 did record surveys of unarmored threespine stickleback in this reach.

The 2010 Entrix surveys showed that the presence of unarmored threespine stickleback is quite variable (ranging from rare or absent in certain reaches of the River, to locally abundant in any given year) in the Project reach. These survey results are consistent with those from other surveys conducted between

1988 and 2002, all of which reported observations of unarmored threespine stickleback in various reaches of the Santa Clara River. (Aquatic Consulting Services 2002A, 2002B, 2002C, 2002D; Haglund 1989; SMEA 1995, 2000; Impact Sciences 2003A, 2003B, 2003C). For this reason, the RMDP 2010 FEIR assumed the unarmored threespine stickleback was present at all pertinent locations (i.e., where project-related impacts might occur) within the Project's reach of the Santa Clara River.

Since the County approved the Mission Village project in May 2012, biologists have continued to survey the Santa Clara River for aquatic species, including unarmored threespine stickleback. Specifically, Cardno conducted additional surveys of the Santa Clara River on August 19, September 4, and September 5, 2014.9

The study area for the Cardno surveys included the mainstem Santa Clara River from near Salt Canyon to near Castaic Junction, approximately 1.5 miles downstream of the Valencia WRP. The study segments covered a total distance of approximately six river miles. River segments within the survey area were delineated based on those identified in the previous fish and habitat surveys conducted by Entrix in 2005 (Entrix, June 2010).

Within each study segment, the wetted channel was walked from downstream to upstream to assess habitat availability and quality for fish. Each survey included a general, qualitative habitat characterization of each reach, including estimated stream gradient, water depths, riparian canopy cover and composition, and habitat unit types present.

Detailed habitat characteristics (habitat type, habitat length, and substrate composition) were recorded for a subset of the habitat units encountered at fairly regular intervals, and also for areas containing special-status species or other notable points of interest (i.e., suitable habitat for unarmored threespine stickleback, areas with large concentrations of exotic species, etc.). Habitat units typically consisted of one habitat type and were delineated by transitions between habitat types (i.e., from riffle to pool). At each of the subsampled habitat units, biologists snorkeled to visually identify and enumerate fish and aquatic vertebrate species. Photographs were taken of each subsampled habitat unit and of additional notable habitat or species locations. Water and air temperatures were recorded at the start and end of each survey using a handheld thermometer.

9 On August 19, 2014, the survey was conducted by Cardno biologist Joel Mulder, accompanied by United Water Conservation District (UWCD) biologists Steve Howard and Michael Booth. On September 4 and September 5, 2014, the surveys were conducted by Joel Mulder, accompanied by Cardno biologist Sarah Horwath. (Note that Joel Mulder, formerly with Cardno, is now employed with ICF International and Steve Howard, formerly of UWCD, is now employed with R2 Resource Consultants Inc.)

In addition to the focused surveys in 2014, Cardno biologists were informed of the results of an August 2015 CDFW survey for unarmored threespine stickleback that took place in the Santa Clara River, from The Old Road downstream to just below the Valencia WRP discharge. As noted above, this area is upstream of the Project site.

Cardno also visited the Santa Clara River on multiple dates in 2015 to conduct a southern western pond turtle study. During this study, Cardno recorded observations of fish.

During the 2014 and 2015 surveys, Cardno observed no unarmored threespine stickleback or other species native to the Santa Clara River. During a river survey conducted in August 2015, however, CDFW observed unarmored threespine stickleback between The Old Road bridge and the Valencia WRP discharge (pers.comm. Tim Hovey, CDFW, Region 5), upstream of the Project area. Unarmored threespine stickleback were numerous in this segment and were represented by all size classes. Santa Ana sucker and arroyo chub were also observed.

The Cardno surveys from 2014 and 2015 recorded no unarmored threespine stickleback within the study reaches described above (Reach A through Reach E), although they are known to occur upstream of the Project area (Entrix, June 2010; pers. Comm Tim Hovey, CDFW, Region 5). Nevertheless, for this analysis, the unarmored threespine stickleback is assumed to be present throughout the Project reaches of the Santa Clara River.

6. MISSION VILLAGE 2011 FEIR'S ANALYSIS OF PROJECT IMPACTS ON UNARMORED THREESPINE STICKLEBACK

The County's Mission Village 2011 FEIR disclosed, analyzed, and addressed the Project's impacts on unarmored threespine stickleback and its habitat, including impacts from bridge construction and buried bank stabilization activities. (MV EIR, pp. MV 4.3-168—169.) Specifically, the Mission Village EIR determined that:

> Construction activities associated with the proposed Commerce Center Drive Bridge and bridge abutments could result in the loss of individual fish, and there is a potential for significant residual impacts to the unarmored threespine stickleback, including impacts to water quality such as sedimentation, dust, and other pollutants, and interference with natural flows and movement of the stickleback. However, the proposed bank stabilization features are set back beyond the existing riparian corridor at most of the project site and would not interface with the active stream channel.
>
> (MV EIR, p. 4.3-168.)

To address these impacts and reduce them to a less-than-significant level, the County adopted mitigation measures consistent with those previously approved by CDFW as part of the related Newhall Ranch RMDP/SCP project. These mitigation measures included, among others, MV 4.3-8 and MV 4.3-9, which authorize qualified biologists, working under the supervision of the United States Fish and Wildlife Service, to collect and relocate stickleback in the event any become stranding during construction-related dewatering and/or stream diversion activities. The content of MV 4.3-8 and MV 4.3-9 are substantially similar to the RMDP/SCP project mitigation measures BIO-44 and BIO-46.

7. RMDP LITIGATION AND COURT ORDER

a. RMDP Lawsuit

While the County was preparing the Mission Village 2011 FEIR and conducting its administrative review of the Project, CDFW certified the RMDP FEIR and approved the Newhall Ranch RMDP/SCP project on December 3, 2010. In January 2011, the Center for Biological Diversity, et al. filed a lawsuit challenging CDFW's decision and alleging that the Project would cause "take" of unarmored threespine stickleback in violation of Fish and Game Code section 5515, which identifies the stickleback as a fully-protected species. The trial court agreed, finding that the RMDP 2010 FEIR's mitigation measures BIO-44 and BIO-46 violated Fish and Game Code section 5515 because the measures allowed biologists to collect and relocate unarmored threespine stickleback. The Second District Court of Appeal reversed the trial court's ruling. The California Supreme Court granted a petition for review of the Court of Appeal's opinion on this issue (and two others).

b. California Supreme Court Decision

The Supreme Court issued its opinion on November 30, 2015. In the opinion, the Supreme Court held that although CDFW adopted mitigation measures BIO-44 and BIO-46 to protect unarmored threespine stickleback, the "collect and relocate" activities described in those mitigation measures nevertheless constituted "take" as that term is defined in section 86 of the Fish and Game Code. Because section 5515 prohibits take of unarmored threespine stickleback except in limited circumstances not applicable to the Newhall Ranch RMDP/SCP project, the Supreme Court determined that mitigation measures BIO-44 and BIO-46 violated the Fish and Game Code and could not lawfully be implemented.

It is important to note, however, that the lawsuit did not include a CEQA challenge to the 2010 RMDP FEIR's analysis of impacts to unarmored threespine stickleback. For this reason, the Supreme Court's decision did not address, and does not affect, that analysis. Instead, the Supreme Court's decision requires only that mitigation measures BIO-44 and BIO-46 be eliminated or replaced, and that the RMDP/SCP project otherwise avoid take of unarmored threespine stickleback.

c. Remand to the Court of Appeal

After issuing its decision, the Supreme Court remanded the case to the Court of Appeal for further proceedings consistent with the Supreme Court's decision. As explained below, the Court of Appeal has provided further direction as to the corrective action required for unarmored threespine stickleback.

On remand, the Court of Appeal affirmed the trial court's ruling that the two Project mitigation measures (BIO-44 and BIO-46) violated Fish and Game Code section 5515's prohibition against the take of unarmored threespine stickleback. (See *Center for Biological Diversity v. Department of Fish and Wildlife (The Newhall Land and Farming Company, Real Party in Interest)* (2nd Dist., Div. 5, 2016), Case No. B245131.)

d. Effect on Mission Village Project

After the County certified the Mission Village 2011 FEIR, the California Native Plant Society and four other organizations filed suit in the Superior Court, alleging the County had violated CEQA, the California Planning and Zoning Law, and the California Subdivision Map Act. None of the claims in the lawsuit challenged the Mission Village 2011 FEIR's analysis of Project impacts on unarmored threespine stickleback. Nor did the lawsuit challenge the validity of mitigation measures MV 4.3-8 and MV 4.3-9 for allowing "take" of stickleback in violation of Fish and Game Code section 5515. As a result, this section is not responding to any unarmored threespine stickleback claim arising from the Mission Village lawsuit.

Instead, the stickleback portion of this section is intended to address the Supreme Court's decision in the related Newhall Ranch RMDP/SCP project litigation that BIO-44 and BIO-46 authorize "take" of a fully-protected fish species (i.e., in the form of collection and relocation of stranded unarmored threespine stickleback) in violation of Fish and Game Code section 5515. Because County-adopted mitigation measures MV 4.3-8 and MV 4.3-9 correspond to CDFW-adopted measures BIO-44 and BIO-46, they too are likely inconsistent with the Supreme Court's decision. In addition, the applicant has now proposed modified construction methods for the Commerce Center Drive bridge and bank stabilization features which avoid impacts to unarmored threespine stickleback, including impacts related to the collection and relocation of stranded stickleback. The proposed modified construction methods obviate the need for the Newhall Ranch RMDP/SCP measures BIO-44 and BIO-46 and, by extension, Mission Village measures MV 4.3-8 and MV 4.3-9, as well as MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12.10

The proposed modified construction methods and their impacts on stickleback and other biotic resources are discussed in detail below. Note, however, that this analysis only examines whether and to what extent such impacts are new or more severe than those previously assessed in the Mission Village 2011 FEIR.

10 See footnote 1, above.

8. PROPOSED MODIFICATIONS TO CONSTRUCTION OF BRIDGES AND BANK STABILIZATION

In response to the Supreme Court's decision, the applicant proposes to avoid all construction-related contact with the wetted portion of Santa Clara River channel (defined in Section 3.1.2). To accomplish this, the construction methods for bridges and bank stabilization would be modified to avoid construction work in the wetted channel, thereby eliminating the need for stream diversion and for mitigation measures BIO-44 and BIO-46. The elimination of BIO-44 and BIO-46 also obviates the need for Mission Village mitigation measures MV 4.3-8, MV 4.3-9, MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12.

The proposed modified construction methods do not change the location, size, or proposed use of the Commerce Center Drive bridge or the bank stabilization features. Rather, the modified design relocates the bridge piers farther from the lower flow channel and changes the construction timing of bank stabilization so that no work takes place in the wetted channel of the Santa Clara River where unarmored threespine stickleback might be affected.

Specifically, the proposed construction modifications would include placing limits on the seasonal timing of construction activities so that work nearest the wetted channel would occur during the driest periods of the year. Project construction schedules would be based upon the potential for inundation due to proximity to the wetted channel. Those construction activities adjacent to the wetted channel, such as installation of a bridge pier, would have a shorter construction window than those infrastructure facilities that are constructed farther away, such as the bank stabilization.

a. Modified Construction Methods for the Permanent Bridge at Commerce Center Drive

The proposed permanent bridge at Commerce Center Drive would be constructed without affecting the wetted channel of the Santa Clara River. Specifically, an evaluation of the modified bridge design and construction processes shows that it would be feasible to construct the proposed permanent bridge at Commerce Center Drive while avoiding contact with the wetted channel of the Santa Clara River, even if the River experiences its highest dry-season flow (estimated at 500 cfs). The proposed modifications are described below.

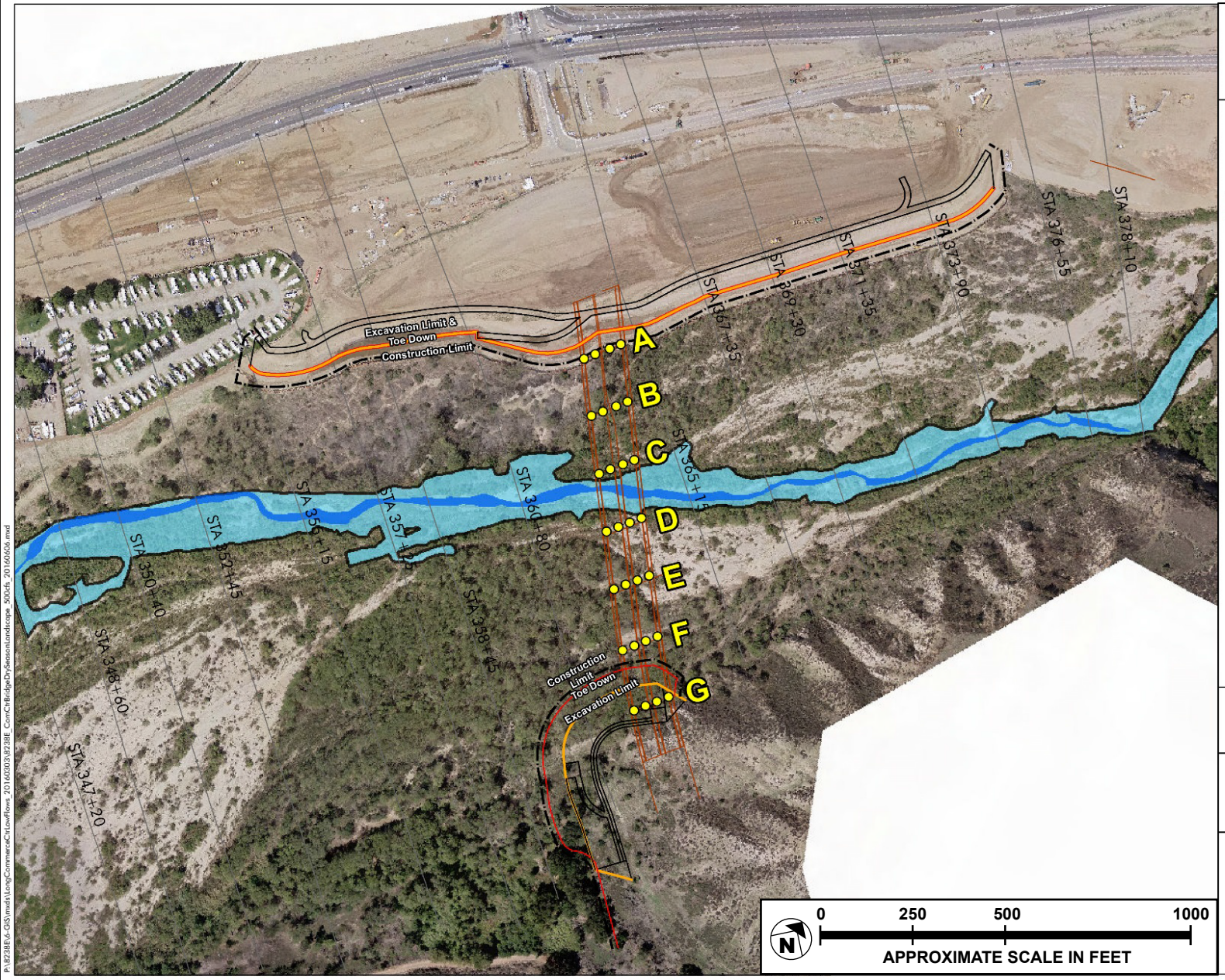
To avoid contact with the wetted channel of the Santa Clara River during construction, the span between bridge piers would increase from the 100 feet as analyzed in the Mission Village 2011 FEIR to a minimum of 165 feet over the wetted channel. In addition, the physical locations of bridge piers would be adjusted to match the wetted channel conditions as they are expected to exist at the time of bridge construction (i.e., June-September dry-year period), so that the piers can be placed outside the wetted channel and

the bridge spans can span across the entirety of the wetted channel, thereby ensuring no water contact. The length of each span would conform to Caltrans Bridge Design Standards, the County of Los Angeles Department of Public Works geotechnical review requirements and bridge design standards, and applicable seismic stability and operational safety standards. The minimum 165-foot span also would reduce the number of piers needed in the Commerce Center Drive bridge from nine (9) to seven (7) for the Commerce Center Drive bridge, thereby eliminating two (2) pier locations for the bridge. **Figure 2.2-1** shows the modified pier locations for the Commerce Center Drive bridge.

The work zone for the bridge (100 feet upstream and 100 feet downstream of the bridge location) would still require vegetation cutting and removal to facilitate bridge construction. Clearing activities would be performed in a manner that equipment would not cross the wetted channel and all work would avoid the wetted channel. To facilitate access and provide level and safe work zones, minor surface disturbance to the dry riverbed would be required — primarily to create ramps between the terraces of the dry riverbed and existing farm areas, with some minor surface contouring, as necessary, to create safe, level work areas at bridge pier or false work locations. **Figure 2.2-2** shows a representation of the bridge pier work area. All of these impacts, however, were part of the original bridge design contemplated and analyzed in the 2012 FEIR. There are no new or more severe impacts created by the proposed modified bridge construction methods.

Moffatt & Nichol, in a memorandum dated October 2016, describe modified construction methods where the Cast-in-Drilled-Hole (CIDH) pile supports and bridge columns (collectively, the piers) can be performed without contact with any portion of the wetted channel of the Santa Clara River. The construction work area and equipment access would be located outside of the wetted channel such that no work in the wetted channel would be required. By also requiring that construction work take place only in the dry season, the proposed construction plan ensures that pier installation areas would not be inundated with river flows. This means no pier construction work would take place in locations, or during a time period, where fish could be present or become stranded in the construction work zone.

The CIDH piers support the bridge columns, girders, and deck. CIDH piers would begin with a boring or shaft augered to a depth necessary to ensure a competent foundation for the bridge super-structure. This shaft would then be fitted with a rebar cage and filled with concrete to form the CIDH support pier. Further, protective barriers and spill containment devices would be deployed during CIDH construction to collect and retain any debris, spoils and drilling fluids, and to ensure construction equipment stays within the defined work zone. (PACE 2016; Geosyntec 2016; Moffatt & Nichol 2016.)



NEWHALL RANCH

LA County CA

Legend

- Bridge Pile Locations
- Highest Estimated Dry-Season Flow (500 cfs)
- Low Flow Channel

COMMERCE CENTER
DRIVE BRIDGE
DRY SEASON HYDROLOGY
500 CFS

Aerial Imagery collected in 2014

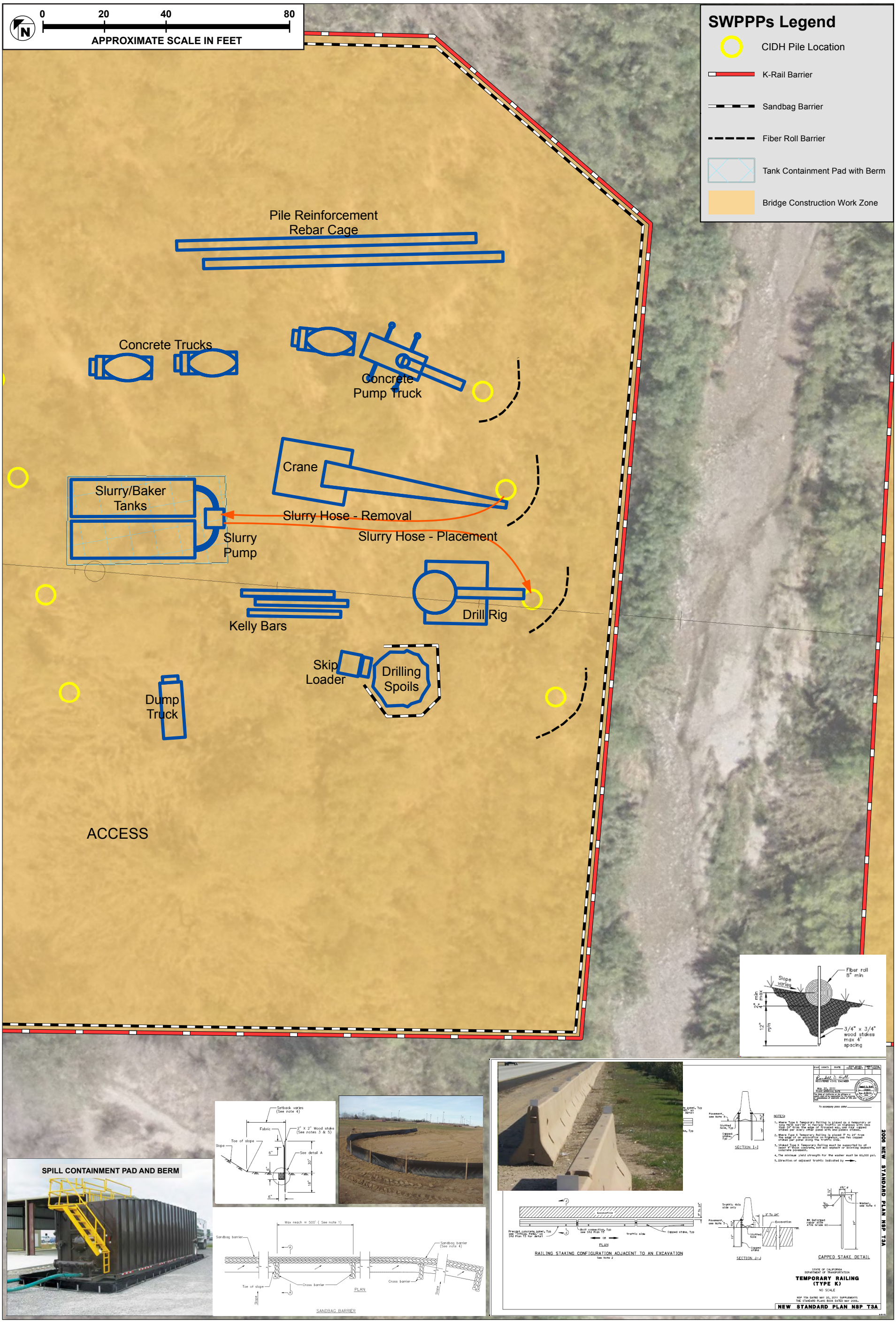
P:\8238\6-GIS\mxds\LongCommerceCtrLowFlows_20160303\8238E_ComCtrBridgeDrySeasonLandscape_500cfs_20160606.mxd

SOURCE: PACE - August 2016

FIGURE **2.2-1**

Meridian Consultants

Commerce Center Drive Bridge with Highest Dry-Season Flow (500 cfs)



SOURCE: Attachment A to Moffatt & Nichol memo - October 2016

FIGURE **2.2-2**

Meridian Consultants

Permanent Bridge CIDH Equipment Layout and SWPPPS Containment

The CIDH shafts would be constructed using the temporary casing method (also known as the "full-depth" casing method). Temporary/full-depth casings stabilize the drilled shaft during construction and minimize the possibility of soil caving and geometric irregularities during concrete placement. The casing can be either left in place or partially removed as concrete is placed into the CIDH shaft. The ultimate depth of the casing left in place is dependent upon geotechnical requirements of the pier support. The steel casing would be installed to a depth of at least 20 feet and extend an additional five (5) feet above the ground surface, for a total of 25 feet of steel casing. The steel casing would remain in place during all CIDH construction and become part of the finished bridge.

Each pier hole would be drilled in less than five days. During this period, the extension of the steel casing five (5) feet above the ground surface would provide additional protection from any potential inundation of the open hole. Each casing would be capped except when actual construction work requires access to the hole (e.g., when pouring cement or actively drilling). A clear weather forecast, defined for this Project as less than a 40% or less chance of a 0.1" or greater precipitation event within the next 48 hours, as forecast by NOAA, would be required for the initiation of any new pile shaft operation. If drilling is in progress and a rain event is forecast in the coming 48-hour period, drilling would be suspended, equipment demobilized, and the only authorized work would be to activate the site Best Management Practices (BMPs) and containment systems.

Upon completion of the construction shaft and boring work, a rebar cage would be lowered into the hole and concrete would be pumped into the hole to create the pier. Groundwater would be displaced during the concrete pour and contained within portable tanks located in the work zone for disposal at a legal disposal site in an upland area. No continuous dewatering or drawdown within the shaft would be required. Casing water, if any, would be extracted and disposed at an upland location. As previously stated, concrete pours would only proceed with a clear weather forecast and be suspended in the event of a precipitation event. In addition to standard BMPs used in construction (silt fence, waddles, sand bags, etc.), a "K-rail"11 barrier system also would be deployed around the perimeter of the pier work zone (see **Figure 2.2-2, Permanent Bridge CIDH Equipment Layout and SWPPPS Containment**). As illustrated, the K-rails would act as both a containment berm for the construction area and a barrier to prevent construction equipment from inadvertently entering the wetted channel of the Santa Clara River. Access to the dry riverbed surface for completion of the CIDH work would be restricted to the dry season. At the completion of each CIDH pier, a vertical support column would be constructed using conventional false work or prefabricated forms.

11 "K-Rail" would be installed per Caltrans specifications http://www.dot.ca.gov/hq/esc/oe/project_plans/Errata/Errata-2006/2006_StdPln_Errata_No_16/Entire-2006-Errata-No-16.pdf (last accessed July 26, 2016).

Following pile installation, construction of bridge girders and the bridge decks would use methods that do not require access into, or through, the wetted channel of the Santa Clara River. The bridge superstructure would be constructed using conventional engineering and construction techniques within the dry portion of the riverbed (Moffatt & Nichol, 2016)**.** Where access to the wetted channel of the Santa Clara River is to be avoided, the use of pre-cast girders is specified. These girders are placed using over-head cranes (gantry or truck mounted) onto cast-in-place receiving supports at pier locations located on either side of the wetted channel of the River. No access to the wetted channel is required for this work to be completed.

To prevent the inadvertent discharge of concrete, debris, or other construction materials into the wetted channel of the Santa Clara River, an underslung tarp, netting, or equivalent catchment or deflecting barrier would be deployed beneath the bridge deck. This catchment system would be maintained in place until completion of the bridge. In addition, equipment and personnel access to the dry portion of the riverbed would be restricted to the dry season.

Pipelines and utilities crossing the river at the bridge location would be integrated into the superstructure of the bridge, suspended between or beneath the girders. Pipe sleeves and conduits, mounting brackets, and pipe hangers, as appropriate, would be placed prior to construction of the bridge deck. Depending on the location of the utilities in relation to the finished bridge deck, construction equipment access to the dry riverbed may be required during this phase of construction. Access to the dry portion of the riverbed would be restricted to the dry season.

All of the work described above would be completed during the dry season defined for the Project, and may require multiple construction seasons.

The bridge deck would be constructed by pouring concrete into the prepared wood and steel deck frames that are supported on the completed girders and bridge piers. Each deck frame would be poured and then allowed to set for a period of time prior to stripping of the frames. Deck work, including barriers, curbs, rails and other final features of the bridge would be completed entirely from the top of the bridge. As previously stated, concrete pours would only proceed with a clear weather forecast and would be suspended in the event of a precipitation event. All construction of the bridge decks and subsequent deck work would occur from the top of the superstructure and no access to the wetted channel of the Santa Clara River is required for this work to be completed.

b. Temporary Haul Route Bridges

To support grading equipment access between soil borrow sites south of the Santa Clara River and fill sites north of the Santa Clara River, the RMDP calls for the construction of two temporary haul routes, with

temporary bridges spanning the wetted channel of the Santa Clara River. Neither of these temporary haul routes, or their attendant bridges, is located within or adjacent to the Mission Village project. Therefore, the Mission Village project does not contribute to impacts associated with the construction and operation of these temporary haul route bridges. For this reason, no further analysis is required.

c. Bank Stabilization

The Mission Village project assumes installation of flood control infrastructure — known as buried bank stabilization — that is proximate to, but set a considerable distance from, the wetted channel of the Santa Clara River. Most locations where construction of bank stabilization is to occur are currently farmed agricultural land. Bank stabilization can be installed without construction equipment or material contacting the wetted channel of the Santa Clara River.

Bank stabilization construction at the San Jose Flats area of Mission Village would be restricted to the dry season, as defined as the time period between June 1 and September 30, to preclude the construction work zone from being inundated by seasonal flood flows. Other bank stabilization installation at locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of winter flood flows would be constructed year-round.

Bank stabilization may require excavation to depths below the local ground water level, necessitating dewatering, or suppression of the groundwater table, to a depth lower than the excavation. Where this is necessary, vertical extraction wells would be installed along the limit of the work zone and fitted with pumps. The wells would be operated to temporarily drawdown groundwater from the extraction point. The influence is greatest at the upper level of the water table and nearly zero at the bottom of the well. Dewatering wells for bank stabilization would be operated in a manner that can be monitored and demonstrated to not affect the surface flow of the wetted channel of the Santa Clara River. Where the wetted channel is within 1,000 feet of dewatering activities, monitoring will occur at least one week prior to and during pump operations and then continue for at least one week subsequent to completion of such operations to ensure no drawdown of the wetted channel. Any groundwater discharges will be directed to an appropriate and legal disposal site in an upland location.

9. PROPOSED PROJECT DESIGN FEATURES AND REGULATORY MEASURES

The following Project Design Features and regulatory measures are proposed to be incorporated into Mission Village to ensure “no impact” to and “no take” of the unarmored threespine stickleback:

MV PDF-2.2-1: To avoid impacts on the unarmored threespine stickleback, as well as other sensitive fish in the Santa Clara River, no construction activities shall take place in the wetted channel of the Santa Clara River.

MV PDF-2.2-2: The construction methods for the permanent bridge at Commerce Center Drive shall be modified to: (i) reduce the number of bridge piers and include a span between piers that accommodates the maximum dry season flow within the Santa Clara River; and (ii) relocate bridge piers to span the bridge deck across the entirety of the wetted portion of the Santa Clara River channel to allow for a "no water contact construction zone" within the wetted channel and avoid the need for stream diversion or dewatering during construction.

MV PDF-2.2-3: To avoid contact with the wetted channels of the Santa Clara River during construction, the span between permanent bridge piers shall increase from the 100-foot span analyzed in the Mission Village 2011 FEIR to a minimum of a 165-foot span over the wetted channel.

MV PDF-2.2-4: The 165-foot span over the wetted channel shall conform to Caltrans Bridge Design Standards, the County of Los Angeles Department of Public Works geotechnical review requirements, and applicable seismic stability and operational safety standards.

MV PDF-2.2-5: The Project shall use the full-depth casing method for constructing Cast-In-Drilled-Hole (CIDH) shafts for the permanent bridge at Commerce Center Drive.

MV PDF-2.2-6: All bridge pier construction work shall be completed during the dry season (defined as June 1 through September 30), and may require multiple construction seasons.

MV PDF-2.2-7: All construction of the permanent bridge decks and subsequent deck work shall occur from the top of the superstructure and no access to the wetted channel of the Santa Clara River shall be allowed for this work to be completed.

MV PDF-2.2-8: Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as the time period between June 1 and September 30, to preclude the construction work zone from being inundated by seasonal flood flows. Other bank stabilization installation at locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of winter flood flows may be constructed year-round.

MV PDF-2.2-9: During the concrete pour of the permanent bridge piles, displaced groundwater shall be contained within portable tanks located in the work zone for disposal at a legal disposal site in an upland area. No continuous dewatering or drawdown within the shaft shall occur. Casing water, if any, shall be extracted and disposed at a legal disposal site in an upland location. No other construction dewatering associated with installation of the Commerce Center Drive bridge shall occur within the project site.

MV PDF-2.2-10: All construction dewatering of seepage water associated with bank stabilization shall be conducted in a manner that does not create a risk of fish stranding, either through draw down (zone of influence) or by flow discharge creating temporary habitat suitable for unarmored threespine stickleback.

MV PDF-2.2-11: All long-term maintenance of project facilities on the Santa Clara River shall adhere to timing and work zone restrictions, specifically: (1) maintenance activities shall not take place in the wetted channel of the Santa Clara River; (2) maintenance, repair or replacement of bridge structures requiring access to the riverbed shall be restricted to the period from June 1 to September 30; (3) any dewatering necessary during any maintenance activities shall not create a risk of fish stranding, either through draw dawn (zone of influence) or through flow discharge creating temporary habitat suitable for unarmored threespine stickleback, nor shall it involve direct removal of surface water from, or discharge to, the wetted channel of the Santa Clara River.

These Project Design Features would be included in the Mission Village Errata to MMRP to ensure implementation.

10. SIGNIFICANCE CRITERIA

To evaluate the significance of impacts associated with the proposed modified construction methods, this section analyzes:

- Whether the modified construction methods for Commerce Center Drive bridge and bank stabilization can be implemented consistent with Fish and Game Code section 5515.
- Whether the modified construction methods would result in new significant impacts or substantially increase the severity of previously identified significant impacts in the Mission

Village 2011 FEIR on unarmored threespine stickleback or other potentially affected biological resources.

11. IMPACT ANALYSIS

a. Impact Findings From Mission Village 2011 FEIR

As stated above, the Mission Village 2011 FEIR disclosed and analyzed impacts on biological resources – including impacts on unarmored threespine stickleback and its habitat – that may result from installation and use of the permanent bridge at Commerce Center Drive and bank stabilization. Specifically, the Mission Village 2011 FEIR found that such infrastructure would result in three types of significant impacts to unarmored threespine stickleback: (i) impacts to individuals, (ii) temporary loss of suitable habitat, and (iii) secondary impacts to individuals and suitable habitat. (Mission Village 2011 FEIR, pp. 4.4-140—141, 4.4-373.)

As to stickleback *individuals*, the Mission Village 2011 FEIR found that mitigation required by the Specific Plan Program EIR and the additional mitigation measures in the Mission Village 2011 FEIR combined would reduce impacts to stickleback individuals to less-than-significant levels. This mitigation contemplated temporary stream diversion channels, and authorized the collection and relocation of stranded stickleback as described in mitigation measures MV 4.3-8 and MV 4.3-9, which allowed qualified biologists working under the supervision of the USFWS to collect and relocate any stranded unarmored threespine stickleback (or other fish).

As to loss of *habitat*, the Mission Village 2011 FEIR found that stickleback habitat would be temporarily impacted through the construction of the Commerce Center Drive bridge piers and footings. These bridge elements were to be installed in the wetted channel of the Santa Clara River. To gain access to the riverbed, however, the River was to be diverted away from the construction zone. As stated above, stream diversion could result in the stranding of fish, including unarmored threespine stickleback, thus necessitating mitigation measures MV 4.3-8 and MV 4.3-9. Based on the implementation of the adopted mitigation measures, the County determined that the Project's temporary impacts on the unarmored threespine stickleback habitat would be less than significant.

As to *secondary impacts*, the Mission Village 2011 FEIR found that both the Specific Plan Program EIR mitigation and the additional mitigation measures in the Mission Village 2011 FEIR would reduce to less than significant the identified secondary impacts on the unarmored threespine stickleback and its habitat. The Mission Village 2011 FEIR did not rely on mitigation measures MV 4.3-8 and MV 4.3-9 to reach this significance finding.

The Mission Village 2011 FEIR also concluded that these impacts could be reduced to less-than-significant levels through implementation of mitigation measures, including measures MV 4.3-8 and MV 4.3-9. As discussed above, however, the County has determined that these three measures cannot be legally implemented in light of the Supreme Court's decision in the RMDP litigation.12

The purpose of this additional impact analysis is to evaluate the proposed construction modifications to the Commerce Center Drive bridge and bank stabilization against the significance criteria listed above. As shown below, the County has determined that the proposed construction methodology is consistent with Fish and Game Code section 5515 and no new or more severe impacts would result from this change in construction methodology or the revised Project Design Feature.

b. Modified Construction Method: Impacts Related to *Construction* of Permanent Bridge at Commerce Center Drive

The Commerce Center Drive bridge is to be located within portions of the Mission Village project area. The bridge would be constructed in a manner that would avoid entry into or contact with the wetted channel of the Santa Clara River, with work done either in the dry riverbed (i.e., the pier installations) or in the air above the wetted channel of the River (i.e., using overhead cranes to lower bridge deck sections into place). Note, however, that neither the size nor the location of the bridge has changed from what was previously analyzed in the Mission Village 2011 FEIR.

As described above, the CIDH pile and column (bridge piers) installation work for the permanent bridge at Commerce Center Drive would be scheduled during the dry season (as defined for this Project as June 1 through September 30) when the Santa Clara River is at its lowest level and not subject to storm-generated surface flows in excess of 500 cfs (Geosyntec, October 2016). These lower surface flows, coupled with the considerable distance between the CIDH work zones and the wetted channel of the Santa Clara River, allow for bridge pier construction with no risk of inundation. In addition, at each pile shaft, a steel surface casing will be inserted the full depth of the pile using an oscillator/rotator technique. The steel casing will secure and contain any fluids within the boring. The steel casing will extend five (5) feet above the ground surface, allowing the pile holes to be capped when not in use. Consequently, there is no exposure of an open hole that could be inundated during a high flow event at any time.

Because the permanent bridge pier installation areas are outside of the wetted channel of the Santa Clara River, and because only oscillator/rotator techniques would be used to install steel casing (instead of hammer or vibratory pile driving), noise and vibration from the permanent bridge construction would not

12 Because mitigation measures MV 4.3-2, MV 4.3-10, MV 4.3-11, and MV 4.3-12 also contemplate stream diversion, they will also be deleted from the Mission Village MMRP.

significantly affect fish, including unarmored threespine stickleback. K-rail barriers will separate the pier installation zones from the wetted channel of the Santa Clara River and keep construction equipment and containment BMPs within the work zone. This will prevent any fluids resulting from the CIDH drilling and concrete pouring operations from entering the River, and provide additional assurance that construction of the bridge piers will not affect the wetted channel.

The bridge superstructure (consisting of cast-in-place girders) would be located above the dry riverbed. The bridge girders will not present a risk to the wetted channel because they will be constructed during the dry season and are a substantial distance from the wetted channel of the Santa Clara River. Where the bridge girders cross the wetted channel, they would be constructed using pre-cast elements and installed without need for construction equipment or falsework in the riverbed. The overlying bridge deck is then poured in to temporary deck frames that are supported on the girders. If not contained, concrete materials could be released to the riverbed or the wetted channel, impacting the water quality of the River. As described above, however, an underslung containment system would be deployed during this phase of bridge construction to capture any pollutant materials and prevent contamination.

Based on these facts and the expert studies, the proposed bridge at Commerce Center Drive would not contact the wetted channel of the Santa Clara River. Thus, the Project's proposed modified construction methods would not result in take of unarmored threespine stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR.

Despite the modified bridge construction methods, there are three potential but unlikely scenarios that may lead to significant construction-related impacts on unarmored threespine stickleback. These potential impacts are different from those assessed in the Mission Village 2011 FEIR primarily because the 2011 FEIR assumed the wetted channel of the Santa Clara River would be diverted away from construction impact zones. The proposed modified construction methods eliminate stream diversion.

The first scenario involves the potential for construction-related equipment, personnel, or activities to accidently enter or make contact with the wetted channel of the Santa Clara River. The second involves the potential for uncured concrete used in the bridge to be spilled or otherwise released into the wetted channel of the river, which may degrade the quality of the water and affect fish. The third involves the potential for construction debris to fall from the bridge deck into the wetted channel of the river where it may degrade water quality and/or strike fish. As discussed below, each of these three potentially significant impacts can be reduced to less-than-significant levels, provided appropriate mitigation measures are implemented. The required mitigation measures are described in **Section 10** of this analysis, below.

(1) Potential Water Contact by Construction Equipment or Personnel

The modified bridge construction approach requires that all construction activities take place outside the wetted channel of the Santa Clara River. Consequently, no construction equipment or personnel would have access to the wetted channel. It is possible, however, that construction activities, equipment, or personnel could inadvertently make contact with the wetted channel and thereby affect fish, including unarmored threespine stickleback. This is considered a potentially significant effect absent mitigation. Therefore, to ensure that no such inadvertent contact with the wetted channel occurs, the County has imposed a mitigation measure requiring the use of a K-rail construction barrier between the bridge construction work zone and the wetted channel of the Santa Clara River **(Mitigation Measures MV 4.3-99/BIO-3-1g** through **MV 4.3-101/BIO-3-1i)**. In addition, the County is requiring that the mandated Worker Environmental Awareness Program include a discussion regarding limitations on access to the wetted channel of the Santa Clara River **(Mitigation Measures MV 4.3-94/BIO-3-1b** and **MV 4.3-100/BIO-3-1h)**.

Provided these measures are implemented, there would be no potential water contact by construction equipment or personnel. Thus, the Project's proposed modified construction methods would not result in take of unarmored threespine stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR.

(2) Increased pH Levels in River Due to Contact with Uncured Concrete

Uncured concrete would not be allowed to make contact with the water in the Santa Clara River. Nevertheless, accidental contact could occur, causing a rise in the water's pH and affecting water quality in the wetted channel of the Santa Clara River.[13] The pollutant of greatest concern is lime, a major component of cement and concrete. Lime dissolves easily in water and can change the pH of water by increasing its alkalinity.

The pH of water affects the normal physiological functions of aquatic organisms, including the exchange of ions with the water and respiration.[14] Such important physiological processes operate normally in most aquatic biota under a relatively wide pH range (e.g., 6-9 pH units). There is no definitive pH range within which all freshwater aquatic life is unharmed and outside which adverse impacts occur. Rather,

13 The following analysis of pH impacts is based on a technical memorandum prepared by ICF International, entitled "pH and Effects on Sensitive Fish Species," dated October 2016, which was prepared for this Project. The technical memorandum is attached to this analysis as **Appendix 2.2-C**.

14 The effects of pH on fish and other freshwater aquatic life have been reviewed in detail and are summarized in Robertson-Bryan (2004).

there is a gradual "deterioration" in acceptability as pH values become further removed from the normal range (EIFAC 1969; AFS 1979; Alabaster and Lloyd 1980, as cited in Robertson – Bryan 2004).

The potential for impacts from elevated pH is generally greatest during construction when concrete wash-off and slurries may come into contact with water. Contamination of groundwater and, subsequently, surface waters by wet concrete, cement paste, or grout may also be a concern. Where non-displacement piling (such as CIDH) involves the casting of concrete directly against the soil, there is a potential for leaching of wet concrete into fast flowing groundwater (ICF 2016). The elevated pH may occur until the concrete, cement paste, or grout is fully set, which generally occurs on a timescale of a few minutes (Westcott et al. 2001).

For the permanent bridge at Commerce Center Drive, the bridge pier footings would have permanent protective casings, which prevent wet concrete from making contact with the upper groundwater. This greatly reduces – but does not completely eliminate – the potential for any concrete contamination of adjacent surface water. Because accidental spills or contact of wet concrete to surface water within the Santa Clara River could create deleterious conditions for unarmored threespine stickleback, this would be considered a potentially significant impact without mitigation.

The County will also impose the following additional mitigation measures to ensure that potential pollutants from concrete do not enter the wetted channel of the Santa Clara River where they could adversely affect unarmored threespine stickleback:

- A clear weather window, defined as less than a 40% chance of 0.10 inch of precipitation in the next 48 hours, as forecast by NOAA, shall be required for the scheduling of any concrete pours. If a concrete pour is in progress, and an un-forecasted rain event occurs, concrete pours shall be suspended **(Mitigation Measure MV 4.3-97/BIO-3-1e)**.

- Precautionary spill containment devices shall be deployed and maintained during any pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the Work Zone or may be underslung or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing) **(Mitigation Measures MV 4.3-99/BIO-3-1g through MV 4.3-101/BIO-3-1i)**.

- To ensure that pH levels in the Santa Clara River are not being affected by bridge-related concrete pouring activities, the project applicant or its designee shall, on a daily basis, monitor the pH levels

in the River at a point, upstream, downstream, and immediately adjacent to the bridge construction work zone during bridge-related concrete pouring operations and report the results monthly to CDFW and the County **(Mitigation Measure MV 4.3-103/BIO-3-1k)**.

Provided these measures are implemented, no pollution-related impacts from bridge construction would occur. Thus, the Project's proposed modified construction methods would not result in take of unarmored threespine stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR.

(3) Potential Impacts From Debris Falling From Bridge Deck

The modified bridge construction methods propose that some portions of the bridge deck be constructed/installed over water. Construction activities such as finishing work would continue on the bridge decks and the bridge would be used to access opposite sides of the river. Accordingly, there is the potential that construction debris could fall from the deck into the wetted channel of the Santa Clara River, where it could adversely affect unarmored threespine stickleback and other special status fish species. This is considered a potentially significant impact absent mitigation.

To avoid this impact, the County will require that each bridge deck be outfitted with an underslung tarp, net, or equivalent to catch any debris that may fall from the bridge deck **(Mitigation Measure MV 4.3-102/BIO-3-1j)**. Provided this measure is implemented, the impact will be less than significant. Thus, the Project's proposed modified construction methods would not result in take of unarmored threespine stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR.

c. Modified Construction Method: Impacts Related to Maintenance and Operation of Permanent Bridge at Commerce Center Drive

Once in place, the bridge at Commerce Center Drive would become a permanent element in the Project's transportation/circulation network. Because the proposed modifications in bridge construction do not change the location, size, and use of the bridge, the *operational* impacts of the bridge will be the same as those analyzed in the Mission Village 2011 FEIR. In some cases, the impacts will be less. For example, impacts related to localized scour at the bridge piers will be reduced because the modified bridge will have a total of two (2) fewer columns than the bridge analyzed in the Mission Village 2011 FEIR. Thus, the Project's proposed modified construction methods would not result in take of unarmored threespine

stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR.15

The RMDP Maintenance Manual, which applies to the Commerce Center Drive bridge, includes measures that encourage bridge repairs from the bridge deck, limit the maintenance area size to up to 30 feet on either side of the bridge, and limit the access of equipment to the riverbed through existing invert access ramps within 1,000 feet of the bridge or through earth ramps constructed on the sideslope in the immediate area of the bridge. However, the maintenance manual also relied upon mitigation measures MV 4.3-8 and MV 4.3-9, which no longer will be implemented. Maintenance and repair of the permanent bridge could result in contact with the wetted channel and could result in mortality or injury of unarmored threespine stickleback. This would be a potentially significant impact without mitigation.

To avoid this impact, the County will require all bridge maintenance and repair activities, as described in the RMDP Maintenance Manual, which have the potential to affect the wetted channel of the Santa Clara River, adhere to the dry season window, as defined for this Project as June 1 through September 30, and to completely avoid the Santa Clara River wetted channel when performing maintenance activities **(Mitigation Measure MV 4.3-104/BIO-3-1l)**. Provided this mitigation measure is implemented, the proposed modified construction methods the Commerce Center Drive bridge would not result in take of unarmored threespine stickleback or cause any new or more severe significant impacts than those previously analyzed in the 2011 FEIR.

d. Modified Construction Method: Impacts Related to Installation of Bank Stabilization

The location and amount of bank stabilization to be installed at Mission Village has not changed from what was previously analyzed in the Mission Village 2011 FEIR. In all cases, bank stabilization would be installed outside the wetted channel of the Santa Clara River. Construction equipment likewise would be deployed

15 Although not a new impact of the proposed bridge design, pier scour was analyzed for its potential to isolate unarmored threespine stickleback or result in other significant biological impacts. This analysis is set forth in subsection 6.1.2 of the "Assessment of Construction-Related Impacts on Fish," dated October 2016, which is appended. The analysis concluded that unarmored threespine stickleback are not likely to enter the scour depressions/holes that form at the bridge pier rows. This is especially the case for the scour depressions at the pier rows located in the middle of the wetted channel where flow velocities are too high for stickleback to negotiate. With respect to the scour depressions at the pier rows located at the edges of the floodplain, the flow velocities in this part of the Santa Clara River are low enough to support unarmored threespine stickleback and thus there would be no need for the fish to seek refuge in a scour pool at the pier rows. Nevertheless, if any stickleback were to enter a scour pool at one of these locations, the pool itself would likely be very shallow and virtually indistinguishable from the many other natural depressions in the riverbed, and thus should pose no special risk to the fish. The analysis also determined that any anticipated scour at the bridge piers would not result in any other significant impact on biological resources.

and used without contacting or encroaching into the wetted channel. Therefore, there would be no bank stabilization stream diversion or dewatering within the wetted channel of the Santa Clara River.

In addition, any bank stabilization excavation located where it may become inundated by high river flows associated with the winter rainy season would not be constructed during periods when such high flows typically occur (December 1 through April 30). Instead, excavations in such locations would only take place during the May 1 through November 30 time period, thereby providing adequate protection against any water or fish intrusion into construction areas **(Mitigation Measure MV 4.3-107/BIO-3-3d)**.

Note, however, that the San Jose Flats bank stabilization project (Mission Village), due to its proximity to the wetted channel, is at risk of inundation even during the May through November time period. If the excavation or equipment operations were to become inundated during a high flow storm event, significant impacts to special status fish species, including stranding of unarmored threespine stickleback, could occur. A Project Design Feature is prescribed to reduce this impact to less than significant, as follows:

Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as the time period between June 1 and September 30 to preclude the construction Work Zone from being inundated by seasonal flood flows **(MV PDF-2.2-8 ;** see also **Mitigation Measure MV 4.3-106/BIO-3-3c)**.

If it becomes necessary complete excavations for installation of bank stabilization below the water table, dewatering wells will be employed along the bank stabilization work zone. Operation of these wells results in a cone of depression of the groundwater table in the vicinity of the dewatering wells. If wells are proximate to surface waters, this can result in an acceleration of discharge of surface water to groundwater, with a corresponding reduction in stream flow (or in this case a shrinking of the wetted channel of the River). To address these potential impacts, the County will require implementation of **Mitigation Measures MV 4.3-109/BIO-3-3f**, as described in **Section 12** of this analysis.

Note that dewatering activities associated with bank stabilization would not involve direct removal of surface water from, or discharge to, the wetted channel of the Santa Clara River. Nor will such activities result in any draw-down of the River's flow such that fish may become stranded. The dewatering "water" also must meet water quality requirements of the Los Angeles Regional Water Quality Control Board for discharge to surface or land, and, therefore, may not cause pollution or degradation of beneficial uses. Accordingly, the impacts of dewatering are the same or less than those addressed in the Mission Village 2011 FEIR.

With the applied Project Design Features and mitigation measures, the County has determined that the proposed modified construction methods with regard to bank stabilization installation would not result in take of unarmored threespine stickleback or otherwise violate Fish and Game Code section 5515. Nor would the modified construction methods cause any new or more severe impacts than those analyzed in the Mission Village 2011 FEIR. As with the bridge at Commerce Center Drive, mitigation for bank stabilization installation would be implemented to avoid water quality impacts during construction.

To reiterate, the location and size of the bank stabilization would remain unchanged from that analyzed in the Mission Village 2012 FEIR. As discussed above, the only adjustments relate to *how*, or more specifically *when* the bank stabilization would be installed. For this reason, the *operational* impacts of bank stabilization will be the same as those analyzed in the Mission Village 2012 FEIR.

12. PROPOSED MITIGATION MEASURES

Based on the above analysis, the following mitigation measures are recommended for Mission Village to ensure "no impacts" to and "no take" of unarmored threespine stickleback. The mitigation measures that follow use the prior Mission Village biota section numerical prefix (i.e., MV 4.3-x), as well as a numeric prefix to cover new mitigation arising from the analysis in this section (i.e., BIO-x).

MV 4.3-93/BIO-3-1a: The applicant, or its designated general contractor, shall implement the PDFs and regulatory measures as incorporated into the project's bridge and bank stabilization designs.

MV 4.3-94/BIO-3-1b: The mandated Worker Environmental Awareness Program (Mitigation Measure MV 4.3-26 from the 2011 Mission Village Final EIR) shall include a discussion regarding restriction of access to the wetted channel of the Santa Clara River and repercussions if encroachment occurs.

MV 4.3-95/BIO-3-1c: Prior to the commencement of construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that no work takes place where fish may be affected.

MV 4.3-96/BIO-3-1d: During permanent bridge construction, a qualified biologist shall monitor all activities that are a threat to adjacent natural habitats or nearby species and prevent equipment, personnel and debris from entering or making contact with the wetted channel of the river.

MV 4.3-97/BIO-3-1e: A clear weather window, defined as less than a 40% chance of 0.10 inches of precipitation in the next 48 hours, as forecast by NOAA, shall be required for the scheduling of any bridge or bank stabilization-related concrete pours. If a bridge

or bank stabilization-related concrete pour is in progress, and an un-forecasted rain event occurs, bridge or bank stabilization-related concrete pours shall be suspended.

MV 4.3-98/BIO-3-1f: During all storm events (including summer rains), a monitor shall inspect work sites to make sure that site is secure and that flooding does not cause tarps to break or diversion drains to become plugged, potentially allowing construction materials and debris to flow into the river.

MV 4.3-99/BIO-3-1g: Precautionary spill containment devices shall be deployed and maintained during any pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the Work Zone or may be underslung or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing).

MV 4.3-100/BIO-3-1h: A K-rail construction barrier shall be deployed between the bridge construction work zone and the wetted channel of the Santa Clara River. A discussion of access limitations shall be included in the required Worker Environmental Awareness Program training.

MV 4.3-101/BIO-3-1i: Spill containment shall be deployed and maintained during Cast-in-Drilled-Hole (CIDH) pile construction, bridge column construction, cast-in-place girder construction, bridge deck pours, and any other pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the work zone or underslung tarp or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing).

MV 4.3-102/BIO-3-1j: To prevent construction debris from falling into the Santa Clara River during installation of bridge decks, the deck areas shall be fitted with an under-slung debris tarp, debris platform, or equivalent, extending at least 50 feet beyond the width of the wetted channel. The applicant or its designee shall perform periodic maintenance and inspection to ensure that the debris catchment system is performing correctly.

MV 4.3-103/BIO-3-1k-: To ascertain that water quality is not being affected by bridge or bank stabilization-related concrete pouring activities, the project applicant or its designee shall monitor the water quality at points upstream, downstream, and immediately adjacent to the bridge construction work zone daily during bridge-related concrete pouring operations and report the results monthly, or as directed, to CDFW and the County. Key parameters to be monitored include pH and turbidity.

MV 4.3-104/BIO-3-1l: All bridge maintenance and repair activities, as described in the RMDP Maintenance Manual, that have the potential to affect the wetted channel of the Santa Clara River shall adhere to the dry season window, as defined for this project, as June 1 through September 30, and to completely avoid the Santa Clara River wetted channel when performing maintenance activities. All measures implemented during original bridge construction shall also be implemented to avoid accidental contact, spills, or falling debris into the wetted channel. In the future, if the wetted portion of the Santa Clara River shifts in location (for example, in response to a flood event that alters the geomorphology of the channel), all maintenance and repair activities shall also be required to occur outside of the wetted channel.

MV 4.3-105/BIO-3-3b: Prior to the commencement of bank stabilization construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that construction BMPs are installed prior to construction. Such surveys shall ensure that no work takes place where fish may be affected.

MV 4.3-106/BIO-3-3c: Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as between June 1 and September 30 to preclude the construction work zone from being inundated by seasonal flood flows.

MV 4.3-107/BIO-3-3d: Bank stabilization construction locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of flood flows shall be constructed year-round.

MV 4.3-108/BIO-3-3e: Although a late-spring or early fall flood event is not expected to occur, the project applicant or its designee shall implement Perimeter Best Management Practices, as required under the Environmental Protection Agency's Construction National Pollutant Discharge Elimination System permit, which would deflect minor flows (less than 12 inches deep, and less

than 15 fps velocities) from entering bank protection construction work zones.

MV 4.3-109/BIO-3-3f: Applicant or its designee shall develop a Construction Groundwater Dewatering Plan for those areas (i.e., bank stabilization areas) in close proximity to stream flow and submit to CDFW and the County for approval. The plan shall include the following measures and be conducted during construction groundwater dewatering activities:

- Bank stabilization dewatering shall be implemented in a manner that (1) does not create temporary wetted channel habitat suitable for stickleback; (2) does not diminish existing river flow, and therefore does not result in stranding of unarmored threespine stickleback or other fish; and (3) does not introduce pollutants to surface waters.

- Dewatering activities shall not involve direct removal of surface water from, or discharge to the Santa Clara River. Nor shall such activities result in any draw-down of the river's flow such that fish may become stranded. Any groundwater discharges shall be directed to an appropriate and legal disposal site in an upland area that will not affect the surface elevation of the wetted channel of the Santa Clara River.

- Applicant or its designee shall assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down).

- Applicant or its designee shall monitor surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down before, during and after groundwater dewatering activities. The designated monitor shall have the authority to halt dewatering activities if water levels decrease in the wetted portion of the Santa Clara River where unarmored threespine stickleback are present.

- Applicant or its designee shall monitor surface water elevations downstream of the project location to assess any flow regimes and overbank areas that may be susceptible to flooding.

- Applicant or its designee shall monitor upland discharge locations for potential channel erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge.

- Monitoring reports shall be summarized and provided to CDFW and the County upon completion of construction activities that required dewatering.

13. SIGNIFICANCE FINDINGS

Based on the above analysis, and provided all of the above Project Design Features and mitigation measures are implemented, the proposed modified construction methods for the Commerce Center Drive bridge and the bank stabilization can be constructed without making contact with the wetted channel of the Santa Clara River, thereby avoiding any potential impact to unarmored threespine stickleback. The modified construction methods for the Commerce Center Drive bridge and bank stabilization eliminate the need for mitigation calling for the collection and relocation of unarmored threespine stickleback during construction (i.e., the Mission Village 2011 FEIR mitigation measures MV 4.3-8 and MV 4.3-9). With the above modified construction methods, along with implementation of the above Project Design Features and mitigation measures, the Commerce Center Drive bridge and bank stabilization can be constructed consistent with the Fish and Game Code, including section 5515.

In addition, this analyzes shows that the modified construction methods for the Commerce Center Drive bridge and bank stabilization will not result in significant biological impacts that are new, additional to or more severe than those previously assessed in the Mission Village 2011 FEIR.

2.3 ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

1. INTRODUCTION

This Errata to the Mitigation Monitoring and Reporting Plan (MMRP) for the Mission Village Project (Project), previously adopted by the Los Angeles County (County) Board of Supervisors (Board) in May 2012, identifies those changes to the previously adopted MMRP that are necessary to respond to the court directives in *California Native Plant Society v. County of Los Angeles* (Case No. B258090; Los Angeles County No. BS138001), which relates to the California Supreme Court's decision in *Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204.

The MMRP (as revised by this Errata) is required by the County as lead agency under CEQA (Pub. Resources Code, §§ 21000, et seq.) for the Project as analyzed in the previously certified Mission Village EIR (State Clearinghouse No. 2005051143) and this additional analysis. Specifically, this Errata has been adopted to ensure that the avoidance or mitigation of significant effects as described in the Project's Recirculated Portions of the EIR are enforceable. As to global climate change, mitigation measures **MV-4.23-1/2-1** through **MV 4.23-13/2-13** contained herein replace and supersede (in full) mitigation measures **MV 4.23-1** through **MV 4.23-7** in the previously adopted MMRP (May 2012). These new GHG mitigation measures account for the ongoing evolution in the technological feasibility of GHG emissions-reducing strategies for large-scale planned communities and serve to achieve the first-ever, large-scale planned community resulting in net zero emissions. This Errata also reflects the elimination of MV 4.3-8 and MV 4.3-9 and the addition of new Project Design Features and mitigation measures, in light of the Supreme Court's *CBD* decision and **Section 2.2** of this document.1 The new mitigation measures to ensure no "take" of unarmored threespine stickleback are designated as **MV 4.3-93/BIO-3-1a** through **MV 4.3-107/BIO-3-3f**.

As to the GHG emissions-reducing measures, because the Project will facilitate the phased development of a planned community, and because the regulatory and technological frameworks for GHG emissions are rapidly evolving and are expected to continue to do so for decades to come, minor modifications to the mitigation measures presented in this Errata are permitted, but can be made by the applicant or its designee only with the approval of the County of Los Angeles Department of Regional Planning (DRP) staff. Following consultation with any other appropriate agencies or departments, County DRP staff may determine the adequacy of any minor modifications by evaluating whether the proposal of the applicant or its designee results in equivalent or more beneficial environmental effects, as compared to the original

1 Because Mission Village EIR mitigation measures MV 4.3-2, 4.3-10, 4.3-11, and 4.3-12 also contemplated Santa Clara River stream diversion and/or other river-related activities that could relocate and thereby affect unarmored threespine stickleback, those measures have been eliminated from the Mission Village EIR as well, consistent with the Department's RMDP/SCP take avoidance assessment (see **Appendix 2.2-D**).

mitigation measures. The minor modifications cannot result in the creation of new or substantially more severe environmental effects; instead, at a minimum, the modifications must achieve equivalent environmental benefits. County DRP must render its determination based on the evidentiary record before it, including supporting materials and analyses prepared at the request of the applicant or its designee.

As required by Public Resource Code section 21081.6(a)(2), the custodian and location of the documents constituting the record of proceedings for the Project are the County of Los Angeles, Department of Regional Planning, Sam Dea, 320 W. Temple Street, Room 1346, Los Angeles, California 90012, and are incorporated by reference. All inquiries relating to the record should be directed to the Department of Regional Planning at (213) 974-4808.

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
Since the County's May 2012 approval of the original MMRP, the following measures have been added or deleted to address potential impacts to unarmored threespine stickleback, in response to the Supreme Court's *CBD* decision.			
MV-PDF-2.2-1: To avoid impacts on the unarmored threespine stickleback, as well as other sensitive fish in the Santa Clara River, no construction activities shall take place in the wetted channel of the Santa Clara River.	Applicant (Qualified biologist)	**Field Verification:** Qualified biologists shall be present during any construction activity that takes place in the dry riverbed of the River to ensure that such construction activity does not make contact with or disturb the wetted channel of the River. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County identifying where construction activities in the Santa Clara River have occurred and demonstrating that such activities have not taken place in the wetted channel of the River.	1. Los Angeles County Department Public Works, CDFW 2. Los Angeles County Department of Public Works, CDFW 3. During bridge construction activities
MV-PDF-2.2-2: The construction methods for the permanent bridge at Commerce Center Drive shall be modified to: (i) reduce the number of bridge piers and include a span between piers that accommodates the maximum dry season flow within the Santa Clara River; and (ii) relocate bridge piers to span the bridge deck across the entirety of the wetted portion of the Santa Clara River channel to allow for a "no water contact construction zone" within the	Applicant (Qualified engineer)	**Bridge Plan Check**	1. Los Angeles County Department of Public Works 2. Los Angeles County Department of Public Works, CDFW 3. Prior to issuance of bridge permit

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
wetted channel and avoid the need for stream diversion or dewatering during construction.			
MV PDF-2.2-3: To avoid contact with the wetted channels of the Santa Clara River during construction, the span between permanent bridge piers shall increase from the 100-foot span analyzed in the Mission Village 2011 FEIR to a minimum of a 165-foot span over the wetted channel.	Applicant (Qualified engineer)	**Bridge Plan Check**	1. Los Angeles County Department of Public Works 2. Los Angeles County Department of Public Works, CDFW 3. Prior to issuance of bridge permit
MV PDF-2.2-4: The 165-foot span over the wetted channel shall conform to Caltrans Bridge Design Standards, the County of Los Angeles Department of Public Works geotechnical review requirements, and applicable seismic stability and operational safety standards.	Applicant (Qualified engineer)	**Bridge Plan Check**	1. Los Angeles County Department of Public Works 2. Los Angeles County Department of Public Works 3. Prior to issuance of bridge permit
MV PDF-2.2-5: The Project shall use the full-depth casing method for constructing Cast-In-Drilled-Hole (CIDH) shafts for the permanent bridge at Commerce Center Drive.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		Reporting: Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such bridge construction activities adhere to this Project Design Feature.	3. During bridge construction activities
MV PDF-2.2-6: All bridge pier construction work shall be completed during the dry season (defined as June 1 through September 30), and may require multiple construction seasons.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such bridge construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities
MV PDF-2.2-7: All construction of the permanent bridge decks and subsequent deck work shall occur from the top of the superstructure and no access to the wetted channel of the Santa Clara River shall be allowed for this work to be completed.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such bridge construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV PDF-2.2-8: Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as the time period between June 1 and September 30, to preclude the construction work zone from being inundated by seasonal flood flows. Other bank stabilization installation locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of winter flood flows may be constructed year-round.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s)shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County Department of Regional Planning confirming that such bridge construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bank stabilization construction activities
MV PDF-2.2-9: During the concrete pour of the permanent bridge piles, displaced groundwater shall be contained within portable tanks located in the work zone for disposal at a legal disposal site in an upland area. No continuous dewatering or drawdown within the shaft shall occur. Casing water, if any, shall be extracted and disposed at a legal disposal site in an upland location. No other construction dewatering associated with installation of the Commerce Center Drive bridge shall occur within the project site.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such bridge construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV PDF-2.2-10: All construction dewatering of seepage water associated with bank stabilization shall be conducted in a manner that does not create a risk of fish stranding, either through draw down (zone of influence) or by flow discharge creating temporary habitat suitable for unarmored threespine stickleback.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure that such construction activities adhere to this Project Design Feature. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such bridge construction activities adhere to this Project Design Feature.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning 3. During bank stabilization construction activities
MV PDF-2.2-11: All long-term maintenance of project facilities on the Santa Clara River shall adhere to timing and work zone restrictions, specifically: (1) maintenance activities shall not take place in the wetted channel of the Santa Clara River; (2) maintenance, repair or replacement of bridge structures requiring access to the riverbed shall be restricted to the period from June 1 to September 30; (3) any dewatering necessary during any maintenance activities shall not create a risk of fish stranding, either through draw dawn (zone of influence) or through flow discharge creating temporary habitat suitable for unarmored threespine stickleback, nor shall it	Applicant (Qualified designee)/LA County DPW	**Field Verification:** Qualified biologist(s) shall be present during bridge maintenance activities to ensure that such maintenance activities adhere to this Project Design Feature.	1. Los Angeles County Department of Public Works, CDFW. 2. Los Angeles County Department of Public Works, CDFW. 3. During bridge maintenance activities.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
involve direct removal of surface water from, or discharge to, the wetted channel of the Santa Clara River.			
MV 4.3-93/BIO-3-1a: The applicant, or its designated general contractor, shall implement the PDFs and regulatory measures as incorporated into the project's bridge and bank stabilization designs.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge and bank stabilization construction activities to ensure that the PDFs and regulatory measures have been implemented as incorporated into the project's bridge and bank stabilization designs. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that the bridge and bank stabilization PDFs have been implemented per the proposed designs.	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. During bridge construction and bank stabilization activities.
MV 4.3-94/BIO-3-1b: The mandated Worker Environmental Awareness Program (Mitigation Measure MV 4.3-26 from the 2011 Mission Village Final EIR) shall include a discussion regarding restriction of access to the wetted channel of the Santa Clara River and repercussions if encroachment occurs.	Applicant (Qualified designee)	**Field Verification**: Qualified biologist(s) shall be present during bridge construction and bank stabilization installation to ensure that all workers receive instruction regarding restricted access to the wetted channel of the Santa Clara River	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		and the repercussions if encroachment occurs. **Reporting:** Applicant shall prepare and submit reports to the County demonstrating that all workers involved in bridge construction and/or bank stabilization installation have received instruction and warnings as required by this mitigation measure.	3. During bridge and bank stabilization construction activities.
MV 4.3-95/BIO-3-1c: Prior to the commencement of construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that no work takes place where fish may be affected.	Qualified biologist	**Field Verification:** Qualified biologist(s) shall be present at bridge and bank stabilization construction zones to ensure that such zones are outside the wetted channel of the river and that now work takes place where fish may be affected. **Reporting:** Applicant shall prepare and submit reports to the County demonstrating that all conditions of this mitigation measure have been met satisfactorily.	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. Prior to commencement of bridge construction activities
MV 4.3-96/BIO-3-1d:	Qualified biologist	**Field Verification:** Qualified biologist(s) shall be present at bridge	1. Los Angeles County Department of Regional Planning, CDFW.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
During permanent bridge construction, a qualified biologist shall monitor all activities that are a threat to adjacent natural habitats or nearby species and prevent equipment, personnel and debris from entering or making contact with the wetted channel of the river.		construction zones to ensure no equipment, personnel or debris enter or makes contact with the wetted channel of the river. **Reporting:** Applicant shall prepare and submit reports to the County demonstrating that all conditions of this mitigation measure have been met satisfactorily.	2. Los Angeles County Department of Regional Planning, CDFW. 3. During bridge construction activities
MV 4.3-97/BIO-3-1e: A clear weather window, defined as less than a 40% chance of 0.10 inches of precipitation in the next 48 hours, as forecast by NOAA, shall be required for the scheduling of any bridge or bank stabilization-related concrete pours. If a bridge or bank stabilization-related concrete pour is in progress, and an un-forecasted rain event occurs, bridge or bank stabilization-related concrete pours shall be suspended.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall obtain and consult daily weather forecasts and verify a 72-hour clear weather window for all construction activities. During a defined storm event, the qualified biologist shall confirm that no bridge or bank stabilization-related concrete pours are being installed. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County demonstrating that no bridge pier installation took place during defined storm events.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge and bank stabilization construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.3-98/BIO-3-1f: During all storm events (including summer rains), a monitor shall inspect work sites to make sure that site is secure and that flooding does not cause tarps to break or diversion drains to become plugged, potentially allowing construction materials and debris to flow into the river.	Applicant (Qualified designee)	**Field Verification:** During all storm events, a monitor shall inspect work sites to ensure flooding does not cause tarps to break or diversion drains to become plugged, potentially allowing construction materials and debris to flow into the River. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that such site inspections took place during storm events and that now construction material or debris entered the River.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities
MV 4.3-99/BIO-3-1g: Precautionary spill containment devices shall be deployed and maintained during any pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the Work Zone or may be underslung or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing).	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during any construction activity that takes place in the dry riverbed of the River to ensure that spill containment devices have been deployed and that no uncured concrete or other materials are discharged or released into the wetted channel of the River. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County demonstrating that spill containment devices have been deployed and that no uncured concrete or other materials have been	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. During bridge construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		discharged or released to the wetted channel of the River.	
MV 4.3-100/BIO-3-1h: A K-rail construction barrier shall be deployed between the bridge construction work zone and the wetted channel of the Santa Clara. A discussion of access limitations shall be included in the required Worker Environmental Awareness Program training.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activity to ensure that K-rail construction barrier is deployed as required by this mitigation measure **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County demonstrating that K-rail barriers have been deployed as required by this mitigation measure	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW. 3. During bridge construction activities
MV 4.3-101/BIO-3-1i: Spill containment shall be deployed and maintained during Cast-in-Drilled-Hole (CIDH) pile construction, bridge column construction, cast-in-place girder construction, bridge deck pours, and any other pouring of concrete related to the bridge structure where released materials or storm water runoff that may have come in contact with uncured concrete could be released to the wetted channel	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure spill containment as required in this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that during bridge construction activities the spill	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
of the Santa Clara River. Containment may be integrated into the K-rail barrier along the perimeter of the work zone or underslung tarp or integrated into the bridge structure itself (such as storm drain system for the roadway that is directed to a water quality treatment facility within the development areas north or south of the bridge crossing).		containment requirements set forth in this mitigation measure have been fulfilled.	3. During bridge construction activities
MV 4.3-102/BIO-3-1j: To prevent construction debris from falling into the Santa Clara River during installation of bridge decks, the deck areas shall be fitted with an under-slung debris tarp, debris platform, or equivalent, extending at least 50 feet beyond the width of the wetted channel. The applicant or its designee shall perform periodic maintenance and inspection to ensure that the debris catchment system is performing correctly.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bridge construction activities to ensure construction debris prevention has been implemented as required by this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that during bridge construction activities the construction debris prevention requirements of this mitigation measure have been fulfilled.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.3-103/BIO-3-1k: To ascertain that water quality is not being affected by bridge or bank stabilization-related concrete pouring activities, the project applicant or its designee shall monitor the water quality at points upstream, downstream, and immediately adjacent to the bridge construction work zone daily during bridge-related concrete pouring operations and report the results monthly, or as directed, to CDFW and the County. Key parameters to be monitored include pH and turbidity.	Applicant (Qualified designee)	**Field Verification:** Qualified water quality technician(s) shall be present during bridge construction activities to ensure water quality monitoring as required by this mitigation measure. In addition, if the monitoring data show that pH levels have changed more than 0.5 units from the naturally occurring variation or have fallen outside the range of 6.5 to 8.5,2 the applicant shall immediately cease concrete-related construction work on the proposed bridge and within 24 hours inform CDFW and the County. Concrete-related construction work on the proposed work shall not resume until conditions return to the ranges indicated above or until CDFW determines such work may recommence without adversely affecting fish or other biological resources. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that during bridge construction activities the water	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bridge construction activities

2 These thresholds are derived from the Los Angeles Regional Water Quality Control Board's Basin Plan.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		quality monitoring requirements of this mitigation measure have been fulfilled.	
MV 4.3-104/BIO-3-1l: All bridge maintenance and repair activities, as described in the RMDP Maintenance Manual, that have the potential to affect the wetted channel of the Santa Clara River shall adhere to the dry season window, as defined for this project, as June 1 through September 30, and to completely avoid the Santa Clara River wetted channel when performing maintenance activities. All measures implemented during original bridge construction shall also be implemented to avoid accidental contact, spills, or falling debris into the wetted channel. In the future, if the wetted portion of the Santa Clara River shifts in location (for example, in response to a flood event that alters the geomorphology of the channel), all maintenance and repair activities shall also be required to occur outside of the wetted channel.	Applicant (Qualified designee)/LA County DPW	**Field Verification:** Qualified biologist(s) shall be present during bridge maintenance and repair activities to ensure that (i) such activities take place only during the dry season window as defined in this mitigation measure, and (ii) all required measures to prevent accidental contact, spills or falling debris into the wetted channel have been implemented. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County Department confirming bridge maintenance and repair activities comply with the conditions of the mitigation measure.	1. Los Angeles County Department of Public Works, CDFW. 2. Los Angeles County Department of Public Works, CDFW. 3. During bridge maintenance activities.
MV 4.3-105/BIO-3-3b:	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during	1. Los Angeles County Department of Regional Planning, CDFW.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
Prior to the commencement of bank stabilization construction activities, a qualified biologist shall survey the proposed work locations to confirm that the construction zone is outside the wetted channel of the river and that construction BMPs are installed prior to construction. Such surveys shall ensure that no work takes place where fish may be affected.		bank stabilization construction activities to ensure that (i) the construction zones are outside the wetted channel of the river, (ii) construction BMPs have been installed prior to construction, and (iii) no work takes place where fish may be affected. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that bank stabilization construction activities comply with the conditions of this mitigation measure.	2. Los Angeles County Department of Regional Planning, CDFW. 3. During bank stabilization construction activities.
MV 4.3-106/BIO-3-3c: Bank stabilization construction at the San Jose Flats area of Mission Village is restricted to the dry season, as defined as between June 1 and September 30 to preclude the construction work zone from being inundated by seasonal flood flows.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bank stabilization construction activities at the San Jose Flats area to ensure that such activities take place only during the dry season as defined in this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that bank stabilization construction activities comply with the conditions of this mitigation measure.	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. During San Jose Flats bank stabilization construction activities.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.3-107/BIO-3-3d: Bank stabilization construction locations susceptible to winter flood flows shall be conducted from May 1 through November 30, when winter flood flows do not occur on the Santa Clara River. Other bank stabilization areas not at risk of flood flows shall be constructed year-round.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bank stabilization construction activities to ensure that such activities take place only during the period set forth in this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that bank stabilization construction activities comply with the conditions of this mitigation measure.	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. During bank stabilization construction activities.
MV 4.3-108/BIO-3-3e: Although a late-spring or early fall flood event is not expected to occur, the project applicant or its designee shall implement Perimeter Best Management Practices, as required under the Environmental Protection Agency's Construction National Pollutant Discharge Elimination System permit, which would deflect minor flows (less than 12 inches deep, and less than 15 fps velocities) from entering bank protection construction work zones.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall be present during bank stabilization construction activities to ensure that the applicant or its designee implements the Perimeter Best Management Practices as described in this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that the applicant or its designee implements the Perimeter Best Management	1. Los Angeles County Department of Regional Planning, CDFW. 2. Los Angeles County Department of Regional Planning, CDFW. 3. During bank stabilization construction activities.

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		Practices as described in this mitigation measure.	
MV 4.3-109/BIO-3-3f: Applicant or its designee shall develop a Construction Groundwater Dewatering Plan for those areas (i.e., bank stabilization areas) in close proximity to stream flow and submit to CDFW and the County for approval. The plan shall include the following measures and be conducted during construction groundwater dewatering activities: • Bank stabilization dewatering shall be implemented in a manner that (1) does not create temporary wetted channel habitat suitable for stickleback; (2) does not diminish existing river flow, and therefore does not result in stranding of unarmored threespine stickleback or other fish; and (3) does not introduce pollutants to surface waters. • Dewatering activities shall not involve direct removal of surface water from, or discharge to the Santa Clara River. Nor shall such activities result in any draw-down of the river's flow such that fish may become stranded. Any groundwater discharges shall be directed to an appropriate and legal disposal site in an upland area that will not affect the surface elevation of the wetted channel of the Santa Clara River.	Applicant (Qualified designee)	**Field Verification:** Qualified biologist(s) shall monitor the construction dewatering requirements of this mitigation measure. **Reporting:** Applicant shall prepare and submit mitigation monitoring reports to the County confirming that the construction dewatering requirements of this mitigation measure have been fulfilled.	1. Los Angeles County Department of Regional Planning, CDFW 2. Los Angeles County Department of Regional Planning, CDFW 3. During bank stabilization construction activities

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
• Applicant or its designee shall assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down). • Applicant or its designee shall monitor surface water elevations upstream, adjacent to, and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down before, during and after groundwater dewatering activities. The designated monitor shall have the authority to halt dewatering activities if water levels decrease in the wetted portion of the Santa Clara River where unarmored threespine stickleback are present. • Applicant or its designee shall monitor surface water elevations downstream of the project location to assess any flow regimes and overbank areas that may be susceptible to flooding. • Applicant or its designee shall monitor upland discharge locations for potential channel erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge. • Monitoring reports shall be summarized and provided to CDFW and the County upon completion of construction activities that required dewatering.			
		~~Surveys conducted for unarmored~~	~~1. LACDRP/CDFG/~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~MV 4.3-2 Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel, aquatic habitats within construction sites and access roads, as well as all aquatic habitats within 300 feet of construction sites and access roads, shall be surveyed by a qualified biologist for the presence of the unarmored threespine stickleback. arroyo chub, and Santa Ana sucker. The Corps and CDFG shall be notified at least 14 days prior to the survey and shall have the option of attending. The biologist shall file a written report of the survey with both agencies within 14 days of the survey and no later than 10 days prior to any construction work in the riverbed. If there is evidence that fish spawn has occurred in the survey area, then surveys shall cease unless otherwise authorized by USFWS. If surveys determine that gravid fish are present, that spawning has recently occurred, or that juvenile fish are present in the proposed construction areas, all activities within aquatic habitat will be suspended. Construction within aquatic habitats shall only occur when it is determined that juvenile fish are not present within the project area.~~	~~Applicant (Project Biologist)~~	~~threespine stickleback, arroyo chub, and Santa Ana sucker~~ ~~Written report shall be filed 10 days prior to any construction in riverbed.~~	~~ACOE/USFWS~~ ~~2. CDFG/ACOE/USFWS~~ ~~3. Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities that result in any disturbance to the banks or wetted channel~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~MV 4.3-8~~ ~~During any stream diversion or culvert installation activity, a qualified biologist(s) shall be present and shall patrol the areas within. upstream, and downstream of the work area. The biologists shall inspect the diversion and inspect for stranded fish or other aquatic organisms. Under no circumstances shall the unarmored threespine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure. Any event involving stranded fish shall be recorded and reported to CDFG and USFWS within 24 hours.~~	~~Applicant (Project Biologist)~~	~~**Measure Implementation:** Specified monitoring activities to be conducted during stream diversion and culvert installation. Required follow-up procedures to be conducted throughout construction period.~~ ~~**Reporting:** Submit reports annually (by April 1) to CDFG until success criteria are met. Report to CDFG within 24 hours of finding stranded fish.~~	
~~MV 4.3-9 Temporary bridges, culvert crossings, or other feasible methods of providing access across the river shall be constructed outside or the winter season and not during periods when spawning is occurring. Prior to the construction of any temporary or permanent crossing of the Santa Clara River, the applicant shall develop a Stream Crossing and Diversion Plan. The plan shall include the following elements: the timing and methods for pre-construction aquatic species surveys; a detailed description of the diversion methods (e.g., berms shall be constructed or on site alluvium materials or low silt content, inflatable dams, sand bags, or other approved materials); special-status species relocation; fish exclusion techniques, including the use of block netting and fish relocation; methods to maintain fish passage during construction; channel habitat enhancement, including the placement of vegetation, rocks, and boulders to produce riffle habitat; fish~~	~~Applicant (Project Biologist)~~	~~Review and Approval of a Stream Crossing and Diversion Plan.~~ ~~At least 30 days prior to Implementation of Plan and prior to the construction of any temporary or permanent crossing of the Santa Clara River~~	~~1. LACDRP / CDFG / ACOE / USFWS~~ ~~2. CDFG / ACOE / USFWS~~ ~~3. Approval of Sub-Notification Letter by CDFG~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~stranding surveys; and the techniques for the removal of crossings prior to winter storm flows.~~ ~~The Plan shall be submitted to the USFWS and CDFG for approval at least 30 days prior to implementation.~~ ~~If adult special-status fishes are present and spawning has not occurred, they shall be relocated prior to the diversion or crossing. Block nets of 0.125-inch woven mesh will be set upstream and downstream. On days with possible high temperature or low humidity (temperatures in excess of 80°·F), work will be done in the early morning hours, as soon as sufficient light Is available, to avoid exposing fishes to high temperatures and/or low humidity.~~ ~~If high temperatures are present, the fishes will be herded to downstream areas past the block net. Once the fishes have been excluded by herding, a USFWS staff member or his or her agents shall inspect the site for remaining or stranded fish. A USFWS staff member or his or her agents shall relocate the fish to suitable habitat outside the project area (Including those areas potentially subject to high turbidity). During the diversion/relocation of fishes, the USFWS or his or her agents shall be present at all times.~~			

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~MV 4.3-10~~ ~~Installation of bridges, culverts, or other structures shall not impair the movement of fish and aquatic life. Bottoms of temporary culverts shall be placed at or below channel grade. Bottoms of permanent culverts shall be placed below channel grade. Culvert crossings shall include provisions for a low flow channel where velocities are less than 2 feet per second to allow fish passage.~~	~~Applicant (Project Biologist)~~	~~Review of Construction Plan and Field Verification~~	~~1. LACDRP / CDFG~~ ~~2. CDFG~~ ~~3. Prior to any River Crossings or Bridge Construction~~
~~MV 4.3-11~~ ~~a. Stream diversion bypass channels:~~ ~~Stream diversion bypass channels will be constructed when the active wetted channel is within the work zone. Diversion bypass channels will be built in accordance with MV 4.3-9 and in consultation with CDFG/USFWS. Equipment shall not be operated In areas of ponded or flowing water unless authorized by CDFG/USFWS.~~ ~~The diversion channel shall be of a width and depth comparable to the natural river channel In all cases where flowing water is diverted from a segment of the stream channel, the bypass channel will be constructed prior to the diversion of the active stream. The bypass channel will be constructed prior to diverting the stream, beginning in the downstream area and continuing in an upstream direction. Where feasible and In consultation with CDFG/USFWS, the configuration of the diversion channel will be curved (sinuous) with multiple sets of~~	~~Applicant (Restoration Ecologist)~~	~~Field Monitoring~~	~~1. LACDRP / CDFG / ACOE / USPWS~~ ~~2. CDFG / ACOE / USFWS~~ ~~3. Prior to Construction Activities in an Active Wetted Channel~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~obstructions (i.e., boulders, large logs, or other CDFG/USFWS-approved materials) placed in the channel at the point of each curve (i.e., on alternating sides of the channel).~~ ~~If emergent aquatic vegetation is present in the original channel, the applicant will transplant suitable vegetation into the diversion channel and on the banks prior to or at the time of the water diversion. A qualified restoration ecologist will supervise the construction of the diversion channels on site. The integrity of the channel and diversion shall be maintained throughout the intended diversion period. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area.~~ ~~Construction of diversion channels shall not occur if surveys determine that gravid fish are present, spawning has recently occurred, or juvenile fish are present in the proposed construction areas.~~ ~~At the conclusion of the diversion, either at the commencement of the winter season. or the completion of construction, the applicant will coordinate with CDFG/USFWS to determine if the diversion should be left In place or the stream returned to the original channel. If CDFG/USFWS determine the stream should be diverted to the original channel, the original channel will be modified prior tore-diversion (i.e., while dry) to construct curves (sinuosity) into that channel, including the placement of obstructions (i.e., boulders, large logs, or other CDFG/USFWS-approved materials). The original channel will be replanted with emergent vegetation as the diversion channel was planted. If the diversion			

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~channel is abandoned, the boulders will remain in place.~~ ~~b. Dewatering:~~ ~~Construction dewatering in close proximity to stream flow shall implement the following:~~ ~~Assess local stream and groundwater conditions, including flow depths, groundwater elevations, and anticipated dewatering cone of influence (radius of draw down).~~ ~~Assess surface water elevations upstream, adjacent to and downstream of the extraction points, to assess any critical flow regimes susceptible to excessive draw down and therefore fish stranding issues.~~ ~~Assess surface water elevations downstream of the discharge locations (if discharge is proposed to the flowing stream) to assess any flow regimes and overbank areas that may be susceptible to flooding and therefore fish stranding at the cessation of discharge. Discharge locations shall also be assessed for potential channel bed erosion from dewatering discharge, and appropriate BMPs must be implemented to prevent excessive erosion or turbidity in the discharge.~~ ~~The information above shall be summarized and provided in a plan approved by CDFG and Corps. Fish shall be excluded from any artificial flowing channels from dewatering discharge. Methods to ensure separation may include, but are not limited to: block netting at the confluence; creation of a physical drop greater than 4 inches at the confluence; or maintaining a velocity range unsuitable for fish passage, such as a berm at the confluence with small diameter pipes for			

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~discharge.~~			
~~MV 4.3-12~~ ~~Slow-moving water habitats shall be constructed upstream and downstream of any river crossing or bridge construction area to provide refuge for special-status fishes during construction. Where feasible and in consultation with CDFG and USFWS, the applicant shall enhance slow-moving water habitats for each linear foot disturbed by hand-excavating shallow side channels and placing multiple sets of obstructions (e.g., boulders, large logs, or other CDFG- and USFWS-approved materials) in the channel.~~	~~Applicant (Restoration Ecologist)~~	~~Enhancement of Slow-Moving Water Habitats~~ ~~Field Verification~~	~~1. LACDRP / CDFG / USFWS~~ ~~2. CDFG / USFWS~~ ~~3. Prior to any River Crossings or Bridge Construction~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
The following mitigation measures replace and supersede (in full) mitigation measures MV 4.23-1 through MV 4.23-7 located on pages 144 through 145 of the MMRP adopted by the County in May 2012, and are consistent with the South Coast Air Quality Management District's locational preferences for GHG mitigation by securing emissions reductions on the Project site, within the Santa Clarita Valley and County of Los Angeles, and within and outside of the State of California. Additionally, these mitigation measures are identical to those identified by the California Department of Fish and Wildlife's Draft Additional Environmental Analysis (SCH No. 2000011025; 2016) for the RMDP/SCP Project. Accordingly, the mitigation measures that follow are preceded by a Mission Village-specific numerical prefix (i.e., MV 4.23-x), as well as a RMDP/SCP Project-specific numerical prefix (i.e., 2-x). The italicized text in the parentheticals following each mitigation measure provides relevant Mission Village Project-specific details and clarifications.			
MV 4.23-1/2-1: Prior to the issuance of residential building permits, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the residential development within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or greenhouse gas emissions savings.	Applicant	Submit ZNE Report for County review and approval prior to issuance of residential building permits.	1. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 2. Los Angeles County Dept. of Public Works 3. Prior to Issuance of Building Permits

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A ZNE Report may, but is not required to: • Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and commercial buildings within a neighborhood/community, or a subset thereof. • Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE. • Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings. *(This mitigation measure applies to Mission Village without change.)*			

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-2/2-2: Prior to the issuance of building permits for commercial development and private recreation centers, and prior to the commencement of construction for the public facilities, respectively, the project applicant or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and approval. The ZNE Report shall demonstrate that the commercial development, private recreation centers, and public facilities within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations have been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or GHG gas emissions savings. ("Commercial development" includes retail, light industrial, office, hotel, and mixed-use buildings. "Public facilities" are fire stations, libraries, and elementary, middle/junior high and high schools.) A ZNE Report may, but is not required to: • Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and non-residential buildings	Applicant	Submit ZNE Report for County review and approval prior to issuance of building permits for commercial development and private recreation centers, and prior to the commencement of construction for the public facilities.	1. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 2. Los Angeles County Dept. of Public Works 3. Prior to Issuance of Building Permits

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
within a neighborhood/community, or a subset thereof. • Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, short falls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE. • Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings. *(This mitigation measure applies to Mission Village without change.)*			
MV 4.23-3/2-3: Prior to the issuance of private recreation center building permits, the project applicant or its designee shall submit swimming pool heating design plans to Los Angeles County for review and approval. The design plans shall demonstrate that all swimming pools located at private recreation centers on the RMDP/SCP project site have been	Applicant	Submit swimming pool heating design plans for County review and approval prior to issuance of building permit for private recreation center.	1. Los Angeles County Dept. of Public Works 2. Los Angeles County Dept. of Public Works 3. Prior to Issuance of Building Permits

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency. *(This mitigation measure applies to Mission Village without change.)*			
MV 4.23-4/2-4: Prior to the issuance of residential building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County for review and approval, which demonstrate that each residence within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations shall be equipped with a minimum of one single-port electric vehicle (EV) charging station. Each charging station shall achieve a similar or better functionality as a Level 2 charging station. Additionally, prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall establish and fund a dedicated account for the provision of subsidies for the purchase of ZEVs, as defined by	Applicant	As to the charging stations, submit building design plan for County review and approval prior to issuance of residential building permits. As to the purchase subsidies, the Project applicant or its designee shall submit proof of the establishment and funding of a dedicated account for the administration of the subsidies to the County. For purposes of the Mission Village Project, there are a total of 4,055 residential dwelling units. Therefore, the Project applicant or its designee has a $2,027,500 funding obligation [(4,055 units x 0.5) x ($1,000)] in the event that full build-out is achieved,	1. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 2. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 3. Prior to Issuance of Building Permits

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
ARB. The project applicant or its designee shall provide proof of the account's establishment and funding to Los Angeles County. The dedicated account shall be incrementally funded, for each village-level project, in an amount that equals the provision of a $1,000 subsidy per residence – on a first-come, first-served basis – for 50 percent of the village's total residences subject to application of Title 24, Part 6, of the California Code of Regulations. *(This mitigation measure applies to Mission Village without change.)*		which equates to a $500 per dwelling unit funding obligation. The dedicated account shall be funded incrementally, prior to the issuance of residential building permits within the Mission Village Project. Specifically, prior to the issuance of residential building permits, the Project applicant or its designee shall provide proof of payment in an amount that directly relates to the number of residential units being permitted at that time. The dedicated account shall be administered by the Project's Transportation Management Organization or equivalent management entity (see mitigation measure **MV 4.23-6/2-6**), which shall be responsible for marketing and promoting the availability of the purchase subsidies to each village's residences, and tracking the update of the subsidies. In the event that the account is not depleted after occupancy of the final residential dwelling unit, the Project applicant or its designee, which may include the Transportation	

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		Management Organization or its equivalent management entity, shall coordinate with the Los Angeles County Planning Director and secure the Planning Director's approval of one or more strategies that secure an equivalent level of greenhouse gas emissions reductions. For purposes of calculating the greenhouse gas emissions reductions required to demonstrate equivalency, each un-used subsidy shall equal 4.70 MT CO_2e reductions per year. The Project applicant or its designee shall be permitted to utilize any unused subsidy funding for purposes of achieving this equivalency requirement.	
MV 4.23-5/2-5: Prior to the issuance of commercial building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County, which demonstrate that the parking areas for commercial buildings on the RMDP/SCP project site shall be equipped with EV charging stations	Applicant	Submit building design plan for County review and approval prior to issuance of commercial building permits.	1. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 2. Los Angeles County Dept. of Public Works

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
that provide charging opportunities to 7.5 percent of the total number of required parking spaces. ("Commercial buildings" include retail, light industrial, office, hotel, and mixed-use buildings.) The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station. In the event that the installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour. *(This mitigation measure applies to Mission Village without change.)*			3. Prior to Issuance of Building Permits
MV 4.23-6/2-6:	Applicant	A copy of the Newhall Ranch TDM is contained within Appendix E of **Appendix 2.1-A.** Implementation of the Newhall Ranch TDM Plan is required by the County's condition of	1. Los Angeles County Dept. of Public Works and Dept. of Regional Planning

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
The project applicant-submitted Newhall Ranch Transportation Demand Management Plan (TDM Plan), located in Technical Report Appendix E contained in AEA Appendix 1, shall be implemented to reduce VMT resulting from project build out with oversight from Los Angeles County. The TDM Plan is designed to influence the transportation choices of residents, students, employees, and visitors, and serves to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, expanded transit opportunities, bikeshare and carshare programs, technology-based programs, and other innovative means. Implementation of relevant elements of the TDM Plan will be included as a condition of approval by Los Angeles County when approving tentative subdivision maps for land developments that are part of the project. Accordingly, the TDM Plan identifies key implementation actions that are critical to the effectiveness of the VMT-reducing strategies, as well as timeline and phasing requirements, monitoring standards, and performance metrics and targets tailored to each of the strategies.		approval that itself requires implementation of this MMRP. Monitoring and implementation of the Newhall Ranch TDM Plan shall proceed in accordance with the Mission Village Applicability Supplement, located in Appendix E within Appendix 2.1-A, in conjunction with the additional village-specific information provided here. The Newhall Ranch TDM Plan includes the provision of subsidies for the purchase of neighborhood electric vehicles (NEVs). The Newhall Ranch Transportation Management Organization or equivalent management entity shall be responsible for marketing and promoting the availability of the NEV purchase subsidies to each village's residences, and tracking the uptake of the subsidies. In the event that the NEV subsidies are not fully utilized after occupancy of the final residential dwelling unit, the Project applicant or its designee, which may include the Transportation Management Organization or its	2. Los Angeles County Dept. of Public Works and Dept. of Regional Planning 3. Prior to Issuance of Building Permits

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
In accordance with the TDM Plan, a non-profit Transportation Management Organization (TMO) or equivalent management entity shall be established to provide the services required, as applicable. *(This mitigation measure applies to Mission Village without change.)*		equivalent entity, shall coordinate with the Los Angeles County Planning Director and secure the Planning Director's approval of one or more strategies that secure an equivalent level of greenhouse gas reductions. For purposes of calculating the greenhouse gas emissions reductions required to demonstrate equivalency, each un-used NEV purchase subsidy shall equal 2.03 MT CO_2e reductions per year. The Project applicant or its designee shall be permitted to utilize any unused subsidy funding for purposes of achieving this equivalency requirement.	

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-7/2-7: Prior to the issuance of traffic signal permits, the project applicant or its designee shall work with Los Angeles County and the California Department of Transportation (Caltrans), as applicable, to facilitate traffic signal coordination along: • State Route 126 from the Los Angeles County line to the Interstate 5 north-bound ramps; • Chiquito Canyon Road, Long Canyon Road, and Valencia Boulevard within the RMDP/SCP project site; • Magic Mountain Parkway from Long Canyon Road to the Interstate 5 north-bound ramps; and • Commerce Center Drive from Franklin Parkway to Magic Mountain Parkway. To effectuate the signal synchronization and specifically the operational and timing adjustments needed at affected traffic signals, the project applicant or its designee shall submit traffic signal plans for review and approval, and/or pay needed fees as determined by Los Angeles County or Caltrans, as applicable. A majority of the signals that will be synchronized will be new signals constructed/installed by the project. Thus, for these signals, the project will provide the necessary equipment at the signal controller cabinet, as well as within the new	Applicant	The Project applicant or its designee shall submit traffic signal plan(s) for County or Caltrans review and approval, as applicable, and/or pay applicable fees as needed for signal operations and timing adjustments to affected traffic signals prior to traffic signal permit issuance.	1. Los Angeles County Dept. of Public Works 2. Los Angeles County Dept. of Public Works/Cal. Dept. of Trans. 3. Prior to Traffic Signal Permit Issuance

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
roadways themselves, to enable and facilitate synchronization. The project is responsible for paying 100 percent of the applicable fee amount for the signal synchronization work, with assurance that the necessary funding will be available to fully implement this measure. *(For purposes of the Mission Village Project, the following roadway segments shall be subject to traffic signal synchronization improvements: (a) Commerce Center Drive from SR-126 to Magic Mountain Parkway; and, (b) Magic Mountain Parkway (within the Mission Village boundary).)*			
MV 4.23-8/2-8: Consistent with the parameters of the Newhall Ranch TDM Plan, the project applicant or its designee shall provide Los Angeles County with proof that funding has been provided for the purchase, operation and maintenance of electric school buses in furtherance of the school bus program identified in the project's TDM Plan. The proof of funding shall be demonstrated incrementally as the school bus program is paced to village-level occupancy and student enrollment levels. *(This mitigation measure applies to Mission Village without change.)*	Applicant	See mitigation measure **MV 2.23-6/2-6**, above. Provide the County with proof of payment per the standards established in the TDM Plan for the administration of the school bus program; the funding shall be made available incrementally as the school bus program is paced to village-level occupancy and student enrollment levels.	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning 3. Per TDM Plan Phasing

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-9/2-9: Prior to the issuance of the first 2,000th residential building permit within the RMDP/SCP project site and every 2,000th residential building permit thereafter, the project applicant or its designee shall provide Los Angeles County with proof that it has provided a subsidy of $100,000 per bus for the replacement of up to 10 diesel or compressed natural gas transit buses with electric buses to the identified transit provider(s). *(The Mission Village Project shall be responsible for its proportional share of the referenced subsidies.)*	Applicant	Prior to the issuance of the first 2,000th residential building permit within the RMDP/SCP Project site and every 2,000th residential building permit thereafter, provide the County with proof of establishment of an escrow account in the amount of $100,000, representing a subsidy for one electric transit bus for the benefit of the identified transit provider(s). The escrow instructions shall document that the subsidies only can be used by the transit provider(s) exclusively for the purpose specified herein (i.e., the purchase of electric transit buses). The project applicant or its designee, which may include the Transportation Management Organization or its equivalent management entity, shall monitor the transit provider(s)'s utilization of the subsidies.	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning 3. Prior to Issuance of Building Permits

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		In the event that one or more subsidies are not utilized for the purchase of any electric transit bus after occupancy of the final residential dwelling unit, the Project applicant or its designee, which may include the Transportation Management Organization or its equivalent management entity, shall coordinate with the Los Angeles County Planning Director and secure the Planning Director's approval of one or more strategies that secure an equivalent level of greenhouse gas emissions reductions. For purposes of calculating the greenhouse gas emissions reductions required to demonstrate equivalency, each un-used electric transit bus subsidy shall equal 61.87 MT CO_2e reductions per year. The Project applicant or its designee shall be permitted to utilize any unused subsidy funding for purposes of achieving this equivalency requirement.	

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-10/2-10: Prior to issuing grading permits for village-level development within the RMDP/SCP project site, Los Angeles County shall confirm that the project applicant or its designee shall fully mitigate the related construction and vegetation change GHG emissions (the "Incremental Construction GHG Emissions") by relying upon one of the following compliance options, or a combination thereof, in accordance with the project applicant-submitted	Applicant	A copy of the Newhall Ranch GHG Reduction Plan is located within Appendix F of **Appendix 2.1-A.** Prior to obtaining grading permits for development within the Project site, the incremental GHG emissions associated with such construction and vegetation change-related activities must be offset.	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
Newhall Ranch GHG Reduction Plan (GHG Reduction Plan; see Technical Report Appendix F contained in AEA Appendix 1): • Directly undertake or fund activities that reduce or sequester GHG emissions and retire the associated GHG reduction credits in a quantity equal to the Incremental Construction GHG Emissions; or • Obtain and retire carbon credits that have been issued by a recognized and reputable carbon registry, as described in the GHG Reduction Plan, in a quantity equal to the Incremental Construction GHG Emissions. *(This mitigation measure applies to Mission Village without change.)*		Compliance with this measure can be demonstrated by either of the following options, or some combination thereof: • Directly providing the County with proof of retired carbon credits (e.g., the carbon credits retirement documentation) in a quantity equal to the Incremental Construction GHG Emissions; or • Providing the County with confirmation of GHG reduction credits issued by a Coordinating Registry that verifies the retirement of credited GHG reductions in a quantity equal to the Incremental Construction GHG Emissions, as described in the GHG Reduction Plan (Appendix F within **Appendix 2.1-A**). In the event that multiple village-level projects have shared improvements, as defined to include any type of utility, roadway and/or infrastructure improvement identified for the implementation of each project, the construction-related emissions for the shared improvements only shall be	3. Prior to Issuance of Grading Permits

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
		offset once and shall be the responsibility of the village-level project that occurs first in time from a grading permit issuance perspective.	
MV 4.23-11/2-11: Prior to the issuance of building permits for every 100 residential units or 100,000 square feet of commercial development for each village-level project, the project applicant or its designee shall	Applicant	A copy of the Newhall Ranch Building Retrofit Program is located within Appendix G of **Appendix 2.1-A**. Prior to the issuance of building permits for every 100 residential units	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
provide proof of funding of the proportional percentage of the Building Retrofit Program (Retrofit Program), as included in Technical Report Appendix G contained in AEA Appendix 1, to Los Angeles County. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Building retrofits covered by the Retrofit Program can include, but are not limited to: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting (including, but not limited to, light bulb replacement), energy efficient appliances, energy efficient windows, insulation, and water conservation measures. The Retrofit Program shall be implemented within the geographic area defined to include Los Angeles County and primarily within disadvantaged communities, as defined by the Retrofit Program, or in other areas accepted by the Los Angeles County Planning Director. Funding shall be applied to implement retrofits strategies identified in the Retrofit Program or other comparable strategies accepted by the Los Angeles County Planning Director. *(This mitigation measure applies to Mission Village without change.)*		or 100,000 square feet of commercial development, provide the County with proof of payment as described in the Retrofit Program to implement the NGO Retrofit Strategy that has been approved by the Planning Director. The Project applicant or its designee also shall provide confirmation to the County that any such payment was used to install energy retrofits consistent with an approved NGO Retrofit Strategy.	3. Prior to Issuance of Building Permits

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-12/2-12: Prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall provide Los Angeles County with proof of installation of EV charging stations capable of serving 20 off-site parking spaces. Thereafter, the project applicant or its designee shall provide Los Angeles County proof of installation of EV charging stations prior to the issuance of residential and commercial building permits per the following ratios: one (1) off-site parking space shall be served by an electric vehicle charging station for every 30 dwelling units, and one (1) off-site parking space shall be served by an electric vehicle charging station for every 7,000 square feet of commercial development. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Off-site EV charging stations capable of servicing 2,036 parking spaces would be required if the maximum allowable development facilitated by the RMDP/SCP project occurs; fewer EV charging stations would be required if maximum build-out under the RMDP/SCP project does not occur. The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station and may service one or more parking spaces. In the event that the installed charging stations use more superior functionality/technology than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of	Applicant	Provide the County with proof of installation of electric vehicle charging stations capable of servicing 20 off-site parking spaces prior to the issuance of the first building permit for the RMDP/SCP Project site. Prior to issuance of the 30th residential building permit and each 30th residential building permit thereafter, provide evidence of installation of one off-site parking space being equipped with an electric vehicle charging station. Prior to the issuance of a commercial building permit for 7,000 square feet and each additional 7,000 square feet thereafter, provide evidence of installation of one off-site parking space being equipped with an electric vehicle charging station.	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning 3. Prior to Issuance of Building Permits

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour. The EV charging stations shall be located within the geographic area defined to include Los Angeles County, and in areas that are generally accessible to the public. For example, the charging stations may be located in areas that include, but are not limited to, retail centers, employment centers, recreational facilities, schools, and other categories of public facilities. *(This mitigation measure applies to Mission Village without change.)*			

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
MV 4.23-13/2-13: In addition to Mitigation Measures 2-1 through 2-12, the project applicant shall offset GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or, if necessary, obtaining carbon credits through the Newhall Ranch GHG Reduction Plan. The project applicant-submitted Newhall Ranch GHG Reduction Plan focuses on achieving GHG reductions or sequestration through the direct investment in specific programs or projects in coordination with an accredited carbon registry, such as the Climate Action Reserve. If these direct investment efforts do not achieve an adequate amount of GHG reductions, the project applicant can obtain carbon credits from accredited carbon registries. SCAQMD recommends that mitigation be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within neighborhood; (3) off-site within district; (4) off-site within state; and (5) off-site out of state (SCAQMD 2008). Prior to issuing building permits for development within the project site, Los Angeles County shall confirm that the project applicant or its designee shall fully offset the project's remaining (i.e., post implementation of Mitigation Measures 2-1 through 2-12) operational GHG emissions over the	Applicant	A copy of the Newhall Ranch GHG Reduction Plan is located within Appendix F of **Appendix 2.1-A**. Prior to obtaining building permits for development within the Mission Village Project site, the incremental operational GHG emissions over the 30-year Project life associated with such building permits that must be offset (the "Incremental Operational GHG Emissions") will be equal to the sum of: (1) the number of proposed residential units covered by the applicable building permit multiplied by 88.13 MT CO_2e; and (2) every thousand square feet (TSF) of proposed commercial development covered by the applicable building permit multiplied by 367.90 MT CO_2e. For example, to obtain a building permit for 75 residential units and 40,000 square feet of commercial development, the Incremental Operational GHG Emissions would be: 75 units x 88.13 MT CO_2e/unit + 40 TSF x 367.90 MT CO_2e/sq. ft. = 21,325 MT CO_2e.	1. Los Angeles County Dept. of Regional Planning 2. Los Angeles County Dept. of Regional Planning 3. Prior to Issuance of Building Permits

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
30-year project life associated with such building permits ("Incremental Operational GHG Emissions) by relying upon one of the following compliance options, or a combination thereof, in accordance with the Newhall Ranch GHG Reduction Plan: • Demonstrate that the project applicant has directly undertaken or funded activities that reduce or sequester GHG emissions ("Direct Reduction Activities") that are estimated to result in GHG reduction credits, as described in the GHG Reduction Plan, and retire such GHG reduction credits in a quantity equal to the Incremental Operational GHG emissions; • Provide a guarantee that it shall retire carbon credits issued in connection with Direct Reduction Activities in a quantity equal to the Incremental Operational GHG emissions; • Undertake or fund Direct Reduction Activities and retire the associated carbon credits in a quantity equal to the Incremental Operational GHG Emissions; or • If it is impracticable to fully offset Incremental Operational Emissions through the Direct Reduction Activities, the project applicant or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a		Compliance with this measure can be demonstrated by either of the following options, or some combination thereof: • Directly providing the County with proof of retired carbon credits (e.g., the carbon credits retirement documentation) in a quantity equal to the Incremental Operational GHG Emissions; or • Providing the County with GHG reduction credits issued by a Coordinating Registry that confirms the retirement of GHG reduction credits in a quantity equal to the Incremental Operational GHG Emissions, as described in the GHG Reduction Plan (Appendix F within **Appendix 2.1-A**). Implementation of this measure shall, within the context of the GHG mitigation measures for the Project overall (i.e., this measure and mitigation measures MV 4.23-1/2-1 through MV 4.23-12/2-12), follow the preferred geographic hierarchy recommended by SCAQMD. Given	

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
quantity equal to the Incremental Operational GHG Emissions. Compliance with MM 2-13 shall be demonstrated incrementally prior to obtaining building permits, and shall in the context of the project overall follow the preferred geographic hierarchy recommended by SCAQMD, discussed above. Incremental Operational GHG emissions shall be equal to the sum of the number of proposed residential units covered by the applicable building permit multiplied by 88.13 MT CO_2e and every thousand square feet of proposed commercial development covered by the applicable building permit multiplied by 367.90 MT CO_2e. *(This mitigation measure applies to Mission Village without change, with the exception that the emissions reduction rates specified in the mitigation measure for residential and commercial building permits have been modified to reflect the Project-specific emissions analysis presented in* ***Appendix 2.1-A*** *and equate to those rates of emissions reductions needed to ensure that Project emissions are reduced to zero.)*		that mitigation measures MV 4.23-1/2-1 through MV 4.23-9/2-9, MV 4.23-11/2-11 and MV 4.23-12/2-12 are measures located on the Project site and within the County of Los Angeles, this measure can be implemented by securing GHG emissions reductions within or outside of the State of California.	

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~MV 4.23-1~~ ~~All residential buildings on the project site that are enabled by approval of the proposed project shall be designed to provide improved insulation and ducting, low E glass, high efficiency air conditioning units, and radiant barriers in attic spaces, as needed, or equivalent to ensure that all residential buildings operate at levels 15 percent better than the standards required by the 2008 version of Title 24. Notwithstanding this measure, all residential buildings shall be designed to comply with the then-operative Title 24 standards applicable at the time building permit applications are filed. For example, if new standards are adopted that supersede the 2008 Title 24 standards, the residential buildings shall be designed to comply with those newer standards and, if necessary, exceed those standards by an increment that is equivalent to a 15 percent exceedance of the 2008~~	~~Applicant~~	~~Plan Check~~	~~1. LACDPW~~ ~~2. LACDPW~~ ~~3. Prior to Issuance of Building Permits~~

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~Title 24 standards.~~			
~~MV 4.23-2~~ ~~All commercial and public buildings on the project site that are enabled by approval of the proposed project shall be designed to provide improved insulation and ducting, low-E glass, high efficiency HVAC equipment, and energy efficient lighting design with occupancy sensors as needed, or equivalent to ensure that all commercial and public buildings operate at levels 15 percent better than the standards required by the 2008 version of Title 24. Notwithstanding this measure, all nonresidential buildings shall be designed to comply with the then-operative Title 24 standards applicable at the time building permit applications are filed. For example, if new standards are adopted that supersede the 2008 Title 24 standards, the nonresidential buildings shall be designed to comply with those newer standards and, if necessary, exceed those standards by an increment that is equivalent to a 15 percent exceedance of the 2008 Title 24 standards.~~	~~Applicant~~	~~Plan Check~~	~~1. LACDPW~~ ~~2. LACDPW~~ ~~3. Prior to Issuance of Building Permits~~
~~MV 4.23-3~~ ~~The project applicant or designee shall produce or cause to be produced renewable electricity, or secure greenhouse gas offsets or credits from a public agency~~	~~Applicant~~	~~Production of Payment to renewable electricity~~	~~1. LACDPW~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~(e.g., CARB; SCAQMD) endorsed market, equivalent to the installation of one photovoltaic (i.e., solar) power system no smaller than 2.0 kilowatts, when undertaking the design and construction of each single-family detached residential unit on the project site.~~			~~2. LACDPW~~ ~~3. Prior to Issuance of Building Permits~~
~~MV 4.23-4~~ ~~The project applicant or designee shall produce or cause to be produced renewable electricity, or secure greenhouse gas offsets or credits from a public agency (e.g., CARB; SCAQMD) endorsed market, equivalent to the installation of one photovoltaic (i.e., solar) power system no smaller than 2.0 kilowatts, on each 1,600 square feet of nonresidential roof area provided on the project site.~~	~~Applicant~~	~~Production of Payment to renewable electricity~~	~~1. LACDPW~~ ~~2. LACDPW~~ ~~3. Prior to Issuance of Building Permits~~
~~MV 4.23-5~~ ~~Consistent with the Governor's Million Solar Roofs Plan, the project applicant or designee, acting as the seller of any single-family residence constructed as part of the development of at least 50 homes that are intended or offered for sale, shall offer a solar energy system option to all customers that enter negotiations to purchase a new production home constructed in Mission Village on land for which an application for a tentative subdivision~~	~~Applicant~~	~~Prior to Escrow Negotiations~~	~~1. LACDPW~~ ~~2. LACDPW~~

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Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~map has been deemed complete. The seller shall disclose the total installed cost of the solar energy system option, and the estimated cost savings.~~			~~3. Prior to Entering into Escrow with Potential Single Family Home Buyers~~
~~MV 4.23-6~~ ~~The project applicant shall use solar water heating for all pools located at the Mission Village recreation centers.~~	~~Applicant~~	~~Plan Check and Field Verification~~	~~1. LACDPW~~ ~~2. LACDPW~~ ~~3. Prior to Issuance of Building Permits for the Recreation Centers~~
~~MV 4.23-7~~ ~~The project applicant, in accordance with Los Angeles County requirements, will design and construct the approximately 13,500 square feet fire station and 36,000 square feet public library so as to achieve LEED silver certification.~~ ~~In addition to the seven global climate change mitigation measures identified above, mitigation measures recommended in connection with other environmental impact categories (i.e., air quality; biological resources; traffic) of the Mission Village Draft EIR would reduce the proposed project's GHG emissions and/or improve the project's capacity to respond to the uncertain effects of~~	~~Applicant~~	~~Plan Check~~	~~1. LACDPW~~ ~~2. LACDPW~~

ERRATA TO MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measures/Conditions of Approval	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
~~global climate change. As these measures are recommended for adoption and incorporated into a mitigation monitoring and reporting program, these measures can be relied upon in this analysis as feasible measures designed to reduce GHG emissions and the impact of global climate change on the project.~~			~~3. Prior to Issuance of the Building Permit for the Fire Station~~

Note: A "village-level project" as described in this MMRP is a project within the RMDP/SCP Project site that is associated with a specific tract map; for example, the Mission Village project is a village-level project.

3.0 LIST OF PREPARERS, AND AGENCIES/ORGANIZATIONS CONSULTED

3.1 LIST OF PREPARERS

This section, including **Table 3.0-1** (List of Draft Additional Analysis Preparers) below, identifies the agencies, entities, and individuals primarily responsible for preparation or review of this Additional Analysis. This list is consistent with the requirements set forth in CEQA (Cal. Code Regs., tit. 14, § 15129). The firm resumes of those listed in **Table 3.0-1**, below, are found in **Appendix 3.0** of this Additional Analysis.

Los Angeles County Department of Regional Planning

Richard J. Bruckner
Planning Director
Samuel Dea
Supervising Regional Planner-Special Projects Section
Los Angeles County Office of the County Counsel

Table 3.0-1
List of Additional Analysis Preparers (in Alphabetical Order)

Name	Qualifications	Expertise	Experience	Participation
		CARDNO		
David B. Blankenhorn	PG; MS in Civil Engineering; BS in Applied Earth Science	Geology/ Engineering	15 years	Hydrology and Flood Control; Geomorphology and Riparian Resources
Camm Swift	PhD in Biology; MA in Zoology; BA in Zoology	Biology	39 years	Biological Resources
		CONSOL		
Mike Hodgson	BS and MA in Science	Energy efficiency	33 years	Preparer of building energy efficiency technical memorandum

Table 3.0-1
List of Additional Analysis Preparers (in Alphabetical Order)

Name	Qualifications	Expertise	Experience	Participation
CONSOL				
Ignacio Robles	BS Civil Engineering; licensed professional engineer in California and 4 other states; licensed general contractor in California	Facilities, design, and mechanical engineering	41 years	Preparer of building energy efficiency technical memorandum
Garth Torvestad	BS and MA in Science	Senior project manager	7 years	Preparer of building energy efficiency technical memorandum
FEHR & PEERS				
Tom Gaul	BS in Civil Engineering	Transportation planning	30 years	Preparer of transportation demand management technical memorandum
Chelsea Richer	BA Public Policy and Environmental Studies, MA Urban and Regional Planning	Transportation planning	2 years	Preparer of transportation demand management technical memorandum
GEOSYNTEC				
Aaron Poresky	BS Civil Engineering, BS in Environmental Engineering	Water resources engineering	10 years	Preparer of Santa Clara River seasonal flow analysis
Austin Orr	BS in Civil Engineering, MA in Civil and Environmental Engineering and Water Resources Engineering	Water resources engineer-in-training	2 years	Preparer of Santa Clara River seasonal flow analysis
ICF INTERNATIONAL				
Joel Mulder	BS in Environmental, Population and Organism Biology	Biology	14 years	Biological Resources

Table 3.0-1
List of Additional Analysis Preparers (in Alphabetical Order)

Name	Qualifications	Expertise	Experience	Participation
MERIDIAN				
Bruce Lackow	BA in Urban and Regional Planning	CEQA, NEPA	25 years	Preparer of DAA and SB 375-related analyses
Tony Locacciato	BA in City and Regional Planning	CEQA, Land Use Planning	30 years	Preparer
Victoria Boyd	BA in Environmental Management and Protection	Regulatory compliance, CEQA, NEPA	2 years	Planner, GIS Analyst
Lisa Maturkanic	BA in Economics	Administration and publication	9 years	Publication
MOFFATT & NICHOL				
Gary Antonucci	BS in Civil Engineering	Engineering, planning and design of transportation structures	35 years	Preparer of technical memorandum implementing proposed "no water contact" construction program
Garrett Dekker	MS and BS in Structural Engineering	Structural engineering	4 years	Preparer of technical memorandum implementing proposed "no water contact" construction program
PACE ADVANCED WATER ENGINEERING				
Mark Krebs	BS Civil Engineering	Hydraulics, engineering	25 years	Hydrology and hydraulics; flood control
Andrew Ronnau	BA in Physics, MS in Civil Engineering and PhD in Civil Engineering	Hydraulics, hydrologic modeling and engineering	20 years	Hydrology and hydraulics; flood control
Jose Cruz	BS in Civil Engineering, MS in Civil Engineering Water Resources	Hydraulics / hydrologic modeling and engineering	12 years	Hydrology and hydraulics; flood control
Tony Howze	BA in Geography	Geographic information management systems	10 years	GIS analysis in planning, biology, hydrology and hydraulics; database management
R2 RESOURCE CONSULTANTS, INC.				
Steve Howard	BS in Fisheries	Fisheries Biologist	18 years	Biological Resources

Table 3.0-1
List of Additional Analysis Preparers (in Alphabetical Order)

Name	Qualifications	Expertise	Experience	Participation
RAMBOLL/ENVIRON				
Eric Lu	BS in Chemical Engineering, MS in Chemical Engineering	Greenhouse gas emissions	15 years	Directed preparation of Greenhouse Gas Emissions Technical Report
Min Hou	BS in Environmental Engineering, MS in Environmental Engineering	Greenhouse gas emissions	9 years	Preparer of Greenhouse Gas Emissions Technical Report
Shaena Berlin	BS in Earth, Atmospheric & Planetary Sciences; MS in Atmospheric Science	Greenhouse gas emissions	2 years	Preparer of Greenhouse Gas Emissions Technical Report
Shari Libicki	PhD, MS and BSE in Chemical Engineering	Greenhouse gas emissions	25 years	Peer Reviewer of Greenhouse Gas Emissions Technical Report
STANTEC				
Daryl Zerfass	BS Civil Engineering	Traffic engineering, transportation planning	25 years	Preparer of SB 375 analysis and other GHG-related technical memoranda and data
Maria Manalili	BA Environmental Analysis and Design	Transportation planning	8 years	Preparer of SB 375 analysis and other GHG-related technical memoranda and data
URBANTRANS NORTH AMERICA				
Ulla Hester	BS in Business Administration; MS in City Planning	TDM planning and program evaluations; bicycle and pedestrian planning; GIS analysis	8 years	Project Manager
Matthew Kaufman	BS in Civil Engineering; MS in Urban Planning	TDM policy, development, social marketing; multimodal connections, ride sharing	13 years	Project Advisor

3.2 LIST OF AGENCIES AND ORGANIZATIONS CONSULTED

Numerous federal, state and local agencies, and organizations were consulted during preparation of the Additional Analysis. Consultation occurred via review of applicable agency or organization websites, studies, reports, criteria, manuals, and e-mail or personal communications. The following agencies and organizations were consulted:

- Ascent Environmental, Inc.
- Bay Area Air Quality Management District
- California Air Pollution Control Officers Association
- California Air Resources Board
- California Building Standards Commission
- California Center for Sustainable Energy
- California Climate Change Center
- California Department of Fish and Wildlife
- California's Department of Resources Recycling and Recovery
- California Department of Water Resources
- California Department of Transportation
- California Energy Commission
- California Environmental Protection Agency
- California High-Speed Rail Authority
- California Natural Resources Agency
- California Public Utilities Commission
- Capital Bikeshare
- City of Lincoln
- City of Santa Clarita
- Climate Action Reserve
- Climate Resolve
- Governor's Office of Planning and Research
- Intergovernmental Panel on Climate Change
- Lawrence Berkeley National Laboratory

- Los Angeles County Department of Public Works
- Los Angeles County Metropolitan Transportation Authority
- Los Angeles Regional Water Quality Control Board
- National Marine Fisheries Service
- National Renewable Energy Laboratory
- Plug In America
- RideAmigos
- San Luis Obispo Air Pollution Control District
- Santa Clarita Transit
- Santa Clarita Valley Economic Development Corporation
- South Bay Cities Council of Governments
- South Coast Air Quality Management District
- Southern California Association of Governments
- Southern California Gas Company
- Southern California Edison
- The Climate Registry
- U.S. Census Bureau
- U.S. Department of Energy
- U.S. Department of the Interior
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Urban Land Institute
- Ventura County
- World Resources Institute

4.0 REFERENCES

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Section 2.1 (continued)

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Greenblatt, Jeffrey, Energy Policy (Vol. 78), Modeling California Impacts on Greenhouse Gas Emissions (March 2015)

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Appendix 2.1-A

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