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January 24, 2007

TO: Supervisor Zev Yaroslavsky, Chairman
Supervisor Gloria Molina
Supervisor Yvonne B. Burke
Supervisor Don Knabe
Supervisor Michael D. Antonovich

FROM: J. Tyler McCauley
Auditor-Controller

SUBJECT: **BOARD REQUESTED REVIEW OF FAILED PROTOCOLS THAT DELAYED NOTIFICATION OF THE COUNTY PUBLIC HEALTH OFFICER OF A SEWAGE SPILL ON AUGUST 8, 2006.**

On September 19, 2006, the Board of Supervisors instructed my Office, in consultation with the Public Health Commission, to report back on the failed protocols that delayed notification of the County Public Health Officer of the August 8, 2006 raw sewage spill onto County beaches. Your Board further instructed my Office to: 1) review existing County, State and other standards and procedures pertaining to the protection of the public's health and safety during sewage spills under both normal and disaster conditions; 2) recommend, in conjunction with County Counsel, improved enforcement methods, including criminal sanctions, and strengthened laws and regulations to apply when the County Public Health Officer is not immediately notified of a sewage spill; and 3) in consultation with interested environmental groups, review sewage spills from January 2002 through July 2006 to determine if all standards and procedures were followed, if public notices were posted without delay, if methods of communication, documentation and responses were sufficient, and whether all affected departments and agencies acted appropriately.

This report contains our analysis of the issues outlined in Supervisor Knabe's September 19, 2006 Board Motion, including recommendations for improvement. It was prepared with significant input from the County's Public Health Commission.

Approach/Scope

As part of our review, we met with representatives from Public Health Department, County Counsel, Beaches and Harbors Department, Public Works Department, Los Angeles County Fire Department/Lifeguards, Internal Services Department, Los County Sanitation Districts, Los Angeles City Bureau of Sanitation, Los Angeles Regional Water Quality Control Board (Water Board), Culver City, and environmental groups Heal the Bay and Santa Monica Baykeeper. Our review also included reviews of applicable laws, regulations, policies, procedures and reports, and site visits to the Braddock Pump Station and Los Angeles City's Venice Sewage Pumping Plant.

For comparison purposes, we interviewed environmental health representatives from the counties of Orange and San Diego. We also reviewed reports and studies on sewage spills previously submitted to your Board.

Because of the frequency of spills occurring throughout the Los Angeles County Region, and because not all spills pose a health risk to recreational beach users, we limited our review to sewage spills of 1,000 gallons or greater that occurred within the Santa Monica Bay Watershed Area from January 2002 through July 2006.

Review Summary and Recommendations

Failed Communication Protocols

The raw sewage spill onto County beaches actually began on Sunday, August 6, 2006 and not Tuesday, August 8, 2006. From August 6 through August 8, Culver City experienced a series of failures at its Braddock Pumping Station, which resulted in the discharge of raw sewage into Ballona Creek in the amount of 1,000 gallons on August 6 and 22,300 gallons on August 8. The City reported each spill to the County. Because the initial spill occurred on a Sunday, it was reported to the County operator, the Department of Public Health's after-hours telephone number. The City reported the second spill directly to the Department of Public Health. They were reported approximately ten and one-half hours and 12 hours respectively after each spill.

From interviews with Culver City representatives, we determined that the following factors contributed to the delay in notifying the County Public Health Officer that a sewage spill had occurred: 1) Failure of the City's alarm system to notify its paging service that an event had occurred at the Braddock Pumping Station 2) City workers were focused on containing the sewage spill and fixing the sewage pumps; and 3) City workers who responded to the spill were not aware of Section 5411.5 of the Health and Safety Code, which requires persons with knowledge of a sewage spill that may enter State waters to immediately notify the local public health officer.

It should be noted that Culver City has submitted its incident report to the Los Angeles Regional Water Quality Control Board (Water Board), the regulatory agency that has oversight responsibility. The Water Board is currently reviewing this incident and may

exercise its ability to impose fines on the City. However, the attached report contains recommendations for improvement that, in part, are based on the Culver City sewage spills. The following are examples of our most significant findings.

Need for Mandatory Standards for Reporting Sewage Spills

Our review determined that the laws and regulations that govern the notification of the local public health officer of sewage spills contain standards and procedures that are vague and confusing. Specifically, the discharge permits issued by the Water Board to operators/owners of sanitary sewer systems and separate storm sewer systems require reporting to the local health officer "as soon as" possible," but not later than 24 hours of knowledge of the spill. The Health and Safety Code Section 5411.5 requires "immediate" reporting of sewage spills to the local health officer, while the Water Code Section 13271 designates the State Office of Emergency Services as the entity to be notified in the event of a sewage spill, not the local public health officer.

To clarify the sewage spill reporting requirements in Los Angeles County, and to improve the timeliness in which the County Public Health Officer is notified of sewage spills, we are recommending that the Board of Supervisors: 1) Instruct the Department of Public Health, in collaboration with interested environmental groups and sewer systems owners/operators, the Department of Beaches and Harbors, and the Fire Department/Lifeguard Division to define the mandatory standards/timeframe for reporting sewage spills to the County Public Health Officer; 2) Consider requesting the Water Board to amend its discharge permits to include a requirement that specifies when, based on the above mandatory standards/timeframes, the County's Public Health Officer should be notified of a sewage spill; 3) Instruct the Department of Public Health, in consultation with the Public Health Commission, to develop an educational program for owners/operators of sanitary sewer systems and separate storm sewer systems and 4) Consider seeking an amendment to the Water Code to include a requirement that the local public health officer be immediately notified in the event of a sewage spill.

Need for Equipment Maintenance Standards

Owners/operators of sanitary sewer collection systems and storm sewer systems are required by their discharge permits to "properly" operate and maintain their systems. This requirement is vague and could result in the improper operation/maintenance of sewer equipment. In the two most recent major sewage spills, Manhattan Beach (1.5 million gallons) and Culver City (25,000 gallons), the spills were both caused by pumping station failures.

At a minimum, owner/operators should be required to operate and maintain their equipment at the level specified by the manufacturer, with additional maintenance performed as necessary to help prevent sewage spills from occurring. Ideally, specific standards should be developed to help ensure the proper operation and maintenance of all sewer systems. However, because of the differences in the types of sewer systems and their maintenance requirements, developing maintenance standards beyond those

required by the manufacturer, will likely require significant discussion amongst key stakeholder groups. In addition to developing standards for maintaining the Los Angeles Region's sanitary sewer systems and storm sewer systems, all completed maintenance should be documented and checked for compliance. Currently, no program exists to periodically verify that owners/operators of the sanitary sewer systems and storm sewer systems are properly operating and maintaining their systems.

We are recommending that the Board of Supervisors consider requesting the Los Angeles Regional Water Quality Control Board to amend its permits to require owners/operators of sanitary sewer systems and storm sewer systems to at a minimum, operate and maintain their equipment at the level specified by the equipment manufacturer with additional maintenance performed as necessary to prevent sewage spills from occurring. We have also recommended that owners/operators of sanitary sewer systems and storm sewer systems be required to perform regular tests of their pumping stations to ensure they will function as intended during an emergency, and that all maintenance and testing be documented. In addition, we are recommending that the Board of Supervisors request the Los Angeles Regional Water Quality Control Board to convene a work group of key stakeholders to develop specific maintenance standards for owners/operators of sanitary sewer systems and storm sewer systems, and to seek appropriate authority and funding to create an ongoing monitoring program for compliance with the established standards.

Establishing County Civil Fine for Failure to Notify Public Health Officer

Currently, the Health and Safety Code Section 5411.5 and the Water Code Section 13271 provide monetary penalties for violating sewage spill reporting requirements, which are set at a maximum of $1,000 and $20,000 respectively. To obtain more legal options for pursuing persons who fail to provide the required notification to the local health officer, we are recommending that the Board of Supervisors consider seeking a change in State law to permit civil fines to be imposed on persons who fail to notify the local health officer of a sewage spill. If the Board chooses to establish a local law, it would be enforceable on the person(s) only in the County's unincorporated area and would not be effective in influencing city run operations, which account for approximately one-half of all remaining sanitary sewer systems operating in the Los Angeles County Region.

Analysis of Prior Spills

We compiled a listing of 208 sewage spills from information provided by the Department of Public Health, the Department of Public Works, the Los Angeles County Sanitation Districts, the Los Angeles City Department of Sanitation, and Heal the Bay. Of the 208 spills, five (2.4%) resulted in beach closures. In each instance, we determined that, upon being notified of the sewage spill, the Department of Public Health, the Department of Beaches and Harbors, and the Fire Department acted timely in notifying the public of the beach closures and possible health threat. However, our review

identified deficiencies in the protocols for reporting after-hour sewage spills to the County Public Health Officer and in Public Health's documentation of reported sewage spills.

We are recommending that the Board of Supervisors instruct the Department of Public Health to provide the County operator with an emergency contact list that contains the names and telephone numbers of at least three employees who will be on-call to receive report of sewage spills after normal business hours, and to make repeated calls to persons on the list if necessary until an employee is reached. We are also recommending that Public Health instruct the County operator to discontinue the practice of leaving messages on voicemail and answering machine systems. In addition, we are recommending that the Board instruct Public Health to develop policies and procedures to centralize the reporting and tracking of sewage spills within the Department's Recreational Health Program, and to require Recreational Health to immediately begin documenting and tracking all reports of sewage spills.

Cost Recovery

During the Public Health Commission's December 2006 meeting, representatives from the Department of Beaches and Harbors and Fire Department/Lifeguard Division commented on the costs incurred by their respective agencies in responding to the January 2006 Manhattan Beach sewage spill. This spill occurred over an 18 hour period with over a million gallons of raw sewage affecting the beach. The Fire Department was responsible for posting and enforcing the four day beach closure while the Department of Beaches and Harbors helped contain the sewage and place barricades around the spill site. Although no specific cost estimates were provided by the two County departments, their representatives stated their costs were significant. A representative from the Los Angeles County Sanitation Districts stated that the District would consider reimbursing the County departments for exceptional costs (e.g., use of heavy equipment, unplanned overtime, etc.) incurred while assisting the District in its response to the Manhattan Beach sewage spill.

We are recommending that the Board of Supervisors instruct the Department of Beaches and Harbors and the Fire Department to submit a reimbursement claim to the Los Angeles County Sanitation Districts for costs incurred in responding to the January 2006 Manhattan Beach sewage spill.

Regional Water Board Membership

At the request of the County's Public Health Commission, the Auditor-Controller and County Counsel reviewed the membership requirements for the State's regional water boards to determine if at least one member was required to have a public health background. Our review determined that none of the water boards' seven membership categories require a background in public health.

Currently, the Los Angeles Regional Water Board's recreation, fish, or wildlife category is vacant and according to a Water Board representative, a person with a public health background would likely qualify for appointment to this category. To ensure that the Water Board's membership includes someone with expertise in the protection of public health and disease prevention, we are recommending that the Board of Supervisors consider requesting the Governor to fill the Water Board's vacant membership position with someone with an expertise in public health. In addition, we are recommending that the Board of Supervisors consider seeking an amendment to the Water Code to require that at least one of the Water Board's seven membership categories includes someone with a public health background.

Acknowledgments

We would like to thank the Public Health Commission for dedicating its meetings over the last several months to discuss the issue of sewage spills and for its valued input on our recommendations to the Board of Supervisors. We would also like to thank County Counsel for its timely legal analysis and counsel throughout the review. In addition, we would like to thank the Departments of Beaches and Harbors, Fire Department/Lifeguard Division, Public Health, and Public Works whose representatives worked cooperatively with us throughout the review and who provided critical insights as to the importance of timely reporting of sewage spills to the County's Public Health Officer and first responders. Also, we would like to thank the Los Angeles City Bureau of Sanitation, the Los Angeles County Sanitation Districts, and the Los Angeles Regional Water Quality Control Board for their openness and support throughout the project. Finally, we would like to thank Culver City's management and staff for their cooperation and candor in explaining the sewage spill that occurred at the City's pumping station.

Review of Report

We have reviewed our report with the Public Health Commission and the Departments of Beaches and Harbors, Fire Department/Lifeguard Division, Public Health, and Public Works. They, in addition to the Los Angeles County Sanitation Districts and the Los Angeles Regional Water Quality Control Board, fully support the recommendations contained in our report. Copies of letters of support from the Public Health Commission and the Los Angeles Regional Water Quality Control Board are enclosed.

County Counsel provided a legal analysis of existing laws and options for strengthening them to improve enforcement methods that govern the notification of the local public health officer of a sewage spill. County Counsel's legal analysis will be submitted to the Board of Supervisors under a separate cover.

Details of our review and recommendations for improvement are included in the attached report. Please call me if you have any questions, or your staff may contact DeWitt Roberts at (213) 974-8315.

JTM:DR:JMS

Attachments

c: Public Health Commission
Chief Administrative Officer
Executive Officer, Board of Supervisors
Public Information Officer
County Counsel
Audit Committee
Director, Public Health Department
Director, Beaches and Harbors
Fire Chief, Fire Department/Lifeguard Division
Director, Internal Services Department
Director, Department of Public Works
General Manager, Los Angeles County Sanitation Districts
Executive Officer, Los Angeles Regional Water Quality Control Board
Director, Culver City Public Works Department
Director, Los Angeles City Bureau of Sanitation
Heal the Bay
Santa Monica Baykeeper

COMMENTS AND RECOMMENDATIONS

Background

On September 19, 2006, on a motion by Supervisor Knabe, the Board instructed my Office, in close consultation with the Public Health Commission, to report back on the failed protocols that delayed notification of the County Public Health Officer of the August 8, 2006 raw sewage spill onto County beaches. Your Board further instructed my Office to: 1) review existing County, State and other standards and procedures pertaining to the protection of the public's health and safety during sewage spills under both normal and disaster conditions; 2) recommend, in conjunction with County Counsel, improved enforcement methods, including criminal sanctions, and strengthened laws and regulations to apply when the County Public Health Officer is not immediately notified of a sewage spill; and 3) in consultation with interested environmental groups, review sewage spills from January 2002 through July 2006 to determine if all standards and procedures were followed, if public notices were posted without delay, if methods of communication, documentation and responses were sufficient, and whether all affected departments and agencies acted appropriately.

Approach/Scope

As part of our review, we met with representatives from Public Health Department, County Counsel, Beaches and Harbors Department, Public Works Department, Los Angeles County Fire Department/Lifeguards, Internal Services Department, Los County Sanitation Districts, Los Angeles City Bureau of Sanitation, Los Angeles Regional Water Quality Control Board, Culver City, and environmental groups Heal the Bay and Santa Monica Baykeeper. Our review also included reviews of applicable laws, regulations, policies, procedures and reports, and site visits to the Braddock Pump Station and Los Angeles City's Venice Sewage Pumping Plant.

For comparison purposes, we discussed sewage spills and responses with environmental health representatives from the counties of Orange and San Diego. We also reviewed reports and studies on sewage spills previously submitted to your Board to determine the implementation status of prior recommendations.

Because of the frequency of spills occurring throughout the Los Angeles County Region, and because not all spills pose a health risk to recreational beach users, we limited our review to sewage spills of 1,000 gallons or greater that occurred within the Santa Monica Bay Watershed Area (See Exhibit #1) from January 2002 through July 2006.

The following are the details of our review and recommendations for improvement.

Culver City Sewage Spill and Notification of the Public Health Officer

On Sunday, August 6, 2006, the City of Culver City experienced a series of pump malfunctions at its Braddock Pump Station (Station or BPS), located at the northeast corner of Braddock Drive and Sawtelle Avenue, resulting in approximately 1,000 gallons of raw sewage entering into Ballona Creek, a tributary to Santa Monica Bay. This Station's three sewage pumps handle approximately 1.5 million gallons of wastewater each day from the cities of Los Angeles and Culver City. Generally, the Station's maximum peak flow could be handled by two pumps. However, on August 6th pump No.1 was off-line due to a valve blockage and pump No. 3 began to malfunction, resulting in reduced level of performance.

At approximately 11:30 AM, a Culver City resident contacted the City's Public Work's Department (PWD) regarding a "flow" coming from manholes on Franklin and Huntley Avenues. The PWD inspector called and left messages for the City's Response Supervisor, Subdrain Worker and contacted the Police Department Communications Unit.

At approximately 12 noon, the Subdrain Crew Leader and Heavy Equipment Operator (workers) arrived at the location and observed a small amount of wastewater flowing out of the manholes and spilling onto portions of Franklin and Huntley Avenue. The small amount of discharge was dispersed into the pavement and did not reach the storm drain system located several blocks away. The workers then checked the BPS and determined that one of the two operating pumps (pump No. 3) was malfunctioning and the wet-well1 was filling up. The workers made a call for additional workers and equipment, and then began to try and bring pump No. 3 back to optimum operation.

At approximately 12:30 PM, additional City workers and equipment arrived on scene and began to pump the wastewater into a vacuum truck. The vacuum truck discharged wastewater into sewer lines located down stream from the incident. The workers were able to bring pump no. 3 back on-line and began cleaning up the spills.

At approximately 10 PM, pump No. 3 began to fail again while PWD staff were still on-site. Wastewater began to flowing out of the manholes on Franklin, Garfield and Huntley Avenues in Culver City. Due to the depressions and cracks in the street, vehicle traffic dispersed the flow and the City later cleaned up most of the remaining flow before it entered the storm drain catch basin using the City's vacuum trucks. However, about 1,000 gallons of sewage entered the Braddock Dr. catch basin before the flow was stopped at approximately 11:00 PM. During this time, Culver City Fire Department (CCFD) arrived on scene in response to calls from local residents. The on-duty Battalion Chief contacted Los Angeles County Fire Department Dispatch requesting the Hazardous Materials Unit, which directed him to contact the Los Angeles County Department of Health Services after hour telephone number. The spill was reported to the on-duty County operator, who, according to the CCFD Incident Report,

1 An underground vault used to collect untreated sewage.

stated that "... inspectors would be sent out the next day to conduct monitoring." (See Exhibit #2).

On Monday, August 7, 2006 at approximately 5:00 AM, wastewater in the wet-well began to back up again due to increased sewage flow to BPS. At approximately 5:30 AM, City staff determined that pump No. 3's impeller was not working. At approximately 7:30 AM, the City determined that two of BPS' three pumps were not operating and the wet-well was beginning to fill. City staff requested additional resources and equipment to draw down the wastewater to permit staff to begin repairs on pump no. 3. The Senior Civil Engineer ordered a 20,000 gallon tanker truck (private contractor), two 5,000 gallon tanker trucks (private contractor) and a portable pump to be delivered to the BPS.

At approximately 9:30 AM, the 20,000 gallon tanker truck and portable pump arrived and were used to draw-down the wet-well. Between noon and 2:00 PM, the two smaller tanker trucks arrived on scene. Additional City staff arrived at approximately 2:00 PM to assist in the clean up and repair operations. City management staff also made site inspections throughout the day.

At approximately 4:30 PM, City staff requested a second 20,000 gallon tanker truck and portable pump, which arrived on scene around 6:00 PM.

At approximately 6:30 PM, City staff worked to bring pump Nos. 1 and 3 back on-line, and clear debris from pump no. 1's check valve2. As staff removed debris, wastewater started to flow forcefully and flooded the dry-well3 within five minutes. The flooding took pump No. 2 offline and the Station's electrical power was manually shut off to avoid a short circuit of the Station's power system. Wastewater began to backup and began to flow out of the manholes on neighboring streets (Huntley, Garfield and Franklin Avenues, and Braddock Dr.). The wastewater was captured before entering the storm drain by using a vacuum truck.

At approximately 6:45 PM, the City's Public Works Director/City Engineer arrived on scene and assumed the "Incident Commander" role for the duration of the response period. Additional vacuum trucks were requested from the cities of El Segundo, Hawthorne, and Manhattan Beach. The additional trucks arrived at around 8:30 PM.

At approximately 9:00 PM, the flowing from the manholes was controlled. The vacuum trucks were used to capture the wastewater and to keep it from entering the storm drain system. An additional private tanker truck also arrived on scene.

At approximately 10:00 PM, additional City staff arrived to assist in the cleanup and repair operations. City management contacted the County and City of Los Angeles to request tanker trucks.

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2 This device limits the flow in a piping system to a single direction.
3 A "dry-well" is a subterranean chamber where the sewage pumps are located.

On Tuesday, August 8, 2006, at 1:00 AM, one 5,000 gallon tanker truck (private contractor) left the scene because it was nearing its legally mandated allowable operating hours. Two other tanker trucks reached their storage capacity and the flow from Braddock Pump Station was too great for the remaining equipment (i.e., four vacuum trucks and three tanker trucks) to handle. At this time, the City's containment efforts were on the verge of being overwhelmed and the City's PWD authorized the discharge of raw wastewater into the Sawtelle Blvd. catch basin, near the Braddock intersection, which connects to the storm drain system that is a tributary to Ballona Creek.4 The City estimated that approximately 22,300 gallons of wastewater reached Ballona Creek.

At approximately 1:30 AM, the County of Los Angeles tanker truck arrives on scene and at approximately 2:30 the City of Los Angeles tanker truck arrives on scene.

At approximately 4:00 AM, the dry-well was cleaned and PWD began work to bring the pumps back online. At approximately 7:00 AM, pumps Nos. 1 and 2 were back online using temporary power and the response ended, and repair and clean-up activities began.

At approximately 7:30 AM, the trucks from the County and City of Los Angeles were released.

At approximately 12:30 PM, the City's Stormwater Program Manager contacted the DHS Environmental Health staff by telephone to advise that a discharge of raw wastewater had occurred and entered the storm drain. At approximately 1:00 PM, DHS staff contacted the County Fire Department/Lifeguard Division to inform them that approximately two miles of the beach from Venice to Dockweiler was being closed. The DHS website and hotline were updated with information on the spill. At approximately 1:30 PM, the beaches were closed and signs posted. DHS sent a sampler to test the waters at the mouth of Ballona Creek and within the closure area. The tests indicated that the bacteria levels exceeded State standards.

On Wednesday morning, August 9, 2006, DHS again took water samples from the same locations and the bacteria levels were still not acceptable.

On Thursday, August 10, 2006, DHS' water sample results determined that the affected areas bacteria levels were within State standards and DHS immediately informed the Fire Department/Lifeguard Division and the beaches were reopened.

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4 Ballona Creek is a nine-mile long flood protection channel that drains the Los Angeles basin and is designed to discharge to the Santa Monica Bay. Its watershed is comprised of all or parts of the cities of Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, and unincorporated Los Angeles County.

Additional Information

We learned that the raw sewage spill onto County beaches actually began on Sunday, August 6, 2006 and not Tuesday, August 8, 2006. We also determined on August 6, at approximately 11:00 PM, CCFD reported the sewage spill to the County Fire Department and County operator who handles after-hour calls for the DPH. The call to County was made approximately ten and one-half hours following the initial spill report to Culver City PWD. However, according to DPH's Recreational Health Program representatives, they have no record of the County operator reporting the sewage spill to the Department.

On August 8, at approximately 12:10 PM, the City made a second call to the County. The City's Stormwater Program Manager telephoned Environmental Health staff to advise them that a discharge of approximately 22,300 gallons raw sewage had entered the storm drain. The Stormwater Program Manager's call to Environmental Health was initiated nearly 12 hours after the spill occurred. According to the Program Manager, she called Environmental Health within 10 minutes of her first learning about the spill. Although she could not recall the specific date, the Stormwater Program Manager stated that she did not learn about the August 6 sewage spill until sometime after August 8.

We also learned that the following factors may have contributed to the delay in notifying the County Public Health Officer:

- On August 6, 2006 the City's alarm system malfunctioned and did not notify its paging service that an event had occurred at the BPS. As a result, City workers were not immediately notified of the problem at the Station, which delayed their response to the spill.5

- According to Culver City representatives, City workers, who responded to the spill, were likely focused on containing the sewage flow and fixing the pumps, and may not have known that they were required to report the spill to the County Public Health Officer.

Recommendations

None. Culver City has submitted its incident report to the Los Angeles Regional Water Quality Control Board (Water Board), the regulatory agency that has oversight responsibility. The Water Board is currently reviewing this incident and may exercise its ability to impose fines on the City. However, the remainder of this report contains recommendations for improvement that, in part, are based on the Culver City sewage spills.

5 The extent of the delay that was caused by the malfunctioning alarm system could not be determined.

Standards and Procedures

The laws and regulations that govern the discharge and monitoring of pollutants into U.S. waters are each designed to protect water, and public health and safety. Many of these laws and regulations contain standards/procedures that govern discharges from all Publicly Owned Treatment Works (POTW)6 and owners/operators of sanitary sewer collections systems. Similarly, the laws and regulations contain standards and procedures for dischargers of stormwater runoff from separate storm sewer systems. These laws are discussed below:

- Federal Water Pollution Control Act/Porter-Cologne Water Quality Act

The Federal Water Pollution Control Act (Clean Water Act) generally prohibits the discharge of any pollutant into the navigable water of the United States (U.S.). A POTW can obtain a National Pollutant Discharge Elimination System (NPDES) permit that allows conditionally for the discharge of some pollutants into U.S. waters. Similarly, under certain conditions, a municipality that owns and operates a separate storm sewer system can obtain a NPDES permit to discharge polluted stormwater runoff. Discharges to U.S. waters are required to meet State water quality standards, or Total Maximum Daily Loads (TMDLs)7.

The State of California has delegated authority under the Clean Water Act to implement the NPDES permitting program. The Porter-Cologne Act (California Water Code) authorizes the State Water Resource Control Board, through its nine regional boards, to issue NPDES permits, and regulate and control the discharge of pollutants. The Los Angeles Regional Water Quality Control Board (Los Angeles Regional Water Board or Water Board) is the oversight authority in this Region.

NPDES Permit

To implement the Clean Water Act provisions pertaining to sanitary sewer wastewater discharges, the Water Board issues NPDES permits to owners/operators of POTWs. The discharger is required to at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances). If the permittee discharges sewage that flows through the storm drain system or directly to receiving waters, or has public exposure, the discharger is required to report the spill to the Water Board, the State Office of Emergency Services, and the local health officer by telephone or electronically as soon as possible, but not later than 24 hours of knowledge of the incident. In addition, the responsible agency must clean-up the spill and monitor its effects.

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6 The United States Environmental Protection Agency defines a Publicly Owned Treatment Works as both a wastewater treatment facility and its associated sanitary sewer systems.

7 Total Daily Maximum Loads set the amount of a given pollutant that the water body can withstand without creating an impairment of that surface water's designated use.

Los Angeles County MS4 Permit

To implement the Clean Water Act provisions pertaining to the discharge of stormwater runoff, the Los Angeles Regional Water Board issues municipal dischargers, owners/operators of storm drain systems, a Los Angeles County Municipal Separate Storm Sewer System NPDES Permit (Los Angeles County MS4 Permit). The Los Angeles County MS4 Permit requires, among other things, permittees to at all time properly operate and maintain their storm drain systems. If a permittee discharges sewage that flows through the storm drain system to receiving waters, the discharger is required to report the spills to the Water Board, the State Office of Emergency Services and the local health agency by telephone or electronically as soon as possible, but not later that 24 hours of knowledge of the incident. In addition, the responsible agency must clean-up the spill and monitor its effects.

The Los Angeles County MS4 Permit also requires dischargers to effectively prohibit the release of unauthorized non-stormwater into the storm drain system. In addition, dischargers are required to implement a timely, comprehensive, cost-effective stormwater pollution control program to reduce the discharge of pollutants in stormwater to the "Maximum Extent Practicable" to the waters of the United States.

- California Water Code

The California Water Code Section 13264 also prohibits the discharge of pollutants without a permit. The Code authorizes the State Water Resources Control Board (SWRCB) to prescribe statewide general Waste Discharge Requirements (WDR)8 for owner/operators of sanitary sewer collection systems, which are systems separate from the storm sewer systems. Facilities that are subject to the WDR consist of pipelines, pump stations, and other facilities that are intended to transport untreated wastewater to both publicly-owned and private wastewater treatment plants.9

At its May 2006 meeting, the SWRCB adopted a general WDR applicable to all publicly owned sanitary sewer collection systems in California with more than one mile of sewer pipe. The goal of the WDR is to provide a statewide approach for reducing sewage spills. Under the WDR, among other requirements, all sanitary sewer system owners must develop a written Sanitary Sewer Maintenance Program (SSMP). Key components of the SSMP must include the owners operating and maintenance program and overflow emergency response plan. The SSMP is subject to review and check for compliance by the Water Board.

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8 In California, WDRs may serve as the NPDES permits.

9 According to the Los Angeles County Regional Water Quality Control Board, while wastewater treatment facilities are operated by a variety of public and private entities, public agencies own the vast majority of this infrastructure.

- Health and Safety Code

Section 5411.5 of the Health and Safety Code requires any person who causes or permits any sewage or other waste to be, or probably will be, discharged in or on any waters of the state, upon having knowledge of the discharge, to immediately notify the local health officer or the director of environmental health of the discharge.

The Health and Safety Code authorizes the local health officer to conduct ocean water bacteriological monitoring and take corrective action when standards are not met. In the event of any unauthorized sewage release that is known to have reached recreational waters, the local public health officer is required to immediately test the waters and take action to immediately restrict or close the beach (or portion thereof) until it has been determine that the water meets State quality standards.

Need for Sewer System Maintenance Standards

Owners/operators of POTWs, sanitary sewer systems, and stormwater sewer systems are required to properly operate and maintain their systems to prevent the unauthorized discharge of sewage, and to maintain an up-to-date SCP/overflow emergency response plan. For the very first time, satellite sanitary sewer systems that are associated with a POTW, with more than one mile of sewer pipe, are required to comply with State waste discharge requirements.10 These regulations were the result of growing concerns about the impact of sewer spills on water quality, particularly those that cause beach closures or pose serious health and safety or nuisance problems to communities.

In the Los Angeles Region, the Water Board has adopted NPDES Permits for POTWs that contain requirements that are more specific than those contained in the general WDR. For example, dischargers are required not only to maintain an up-to-date "Spill Contingency Plan" (SCP), but to also amend the SCP whenever there is change in the design, construction, operation, or maintenance of the POTWs sewage system or sewage facilities, which materially affects the potential for spills and may adversely influence the operations of the treatment plant. In addition, POTW dischargers are required to amend their SCP as appropriate after each spill and to ensure that an up-to-date SCP is readily available to their sewage system personnel at all times and that they are familiar with the plan.

While owners/operators of sanitary sewer collection systems and storm drain systems are required to "properly" operate and maintain their systems, this requirement is vague and could result in the improper operation/maintenance of sewer equipment. At a minimum, owners/operators of sewer systems should be required to operate and maintain their equipment at the level specified by the equipment's manufacturer, with additional maintenance performed as necessary to prevent sewage spills from occurring. Ideally, specific standards should be developed to help ensure the proper

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10 According to the Department of Public Works, prior to May 2006, owners/operators of these systems were not governed by any oversight authority. At the time of our review, information on the number of new sanitary sewer collection systems required to comply with the WDR could not be determined.

maintenance and operation of all sewer systems. However, because of the differences in the types sewer systems and their maintenance requirements, developing maintenance standards, beyond those required by the manufacturer, will likely require significant discussion amongst key stakeholder groups (e.g., Water Board, Los Angeles City, Los Angeles County Sanitation Districts, and Los Angeles County Department of Public Works, etc.).

In addition to developing standards for maintaining the Region's sewer systems, all maintenance should be documented and checked for compliance. According to representatives of the Water Board, currently, no program exists whereby there is independent and periodic verification that owners/operators of sewer systems are properly operating and maintaining their equipment.

Additionally, the two most recent major sewage spills within the Santa Monica Bay Watershed Area, Manhattan Beach (1.5 million gallons) and Culver City (25,000 gallons), were both caused by pumping station failures.11 In each instance, the alarm system and backup sewage pump(s) failed. Culver City representatives were unable to tell us when the City last fully tested its alarm system and backup pumps under simulated emergency conditions.

Recommendations

The Board of Supervisors consider requesting the Los Angeles Regional Water Quality Control Board to:

1. **Amend the Los Angeles County NPDES permit and WDR to require sewer system owners/operators to:**

   a) **At a minimum, operate and maintain their sewer system equipment at the level specified by the equipment's manufacturer with additional maintenance performed as necessary to prevent sewage spills from occurring.**

   b) **Perform regular tests of their pumping station alarm systems, backup pumps, and electrical generators to ensure they will function as intended during an emergency.**

   c) **Maintain documentation to support all maintenance and testing of their sewer systems.**

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11 On Friday, December 29, 2006, it was reported that the Los Angeles County Sanitation Districts agreed to pay $2.5 million to the Los Regional Water Quality Control Board to settle a dispute over the Manhattan Beach sewage spill. As part of the settlement, the District is released from liability for 93 sewage spills that occurred during the last five years.

2. **Convene a work group of key stakeholders to develop specific maintenance standards for owners/operators of sanitary sewer systems in Los Angeles County.**

3. **Seek appropriate authority and funding to create and operate an ongoing independent sanitary sewer collection system monitoring program. The program would monitor sanitary sewer owners/operators for compliance with established maintenance standards and would include a written report on the monitoring results.**

Need for Mandatory Timeframe for Reporting Spills

The Los Angeles County NPDES Permit and the WDR require reporting to the local health officer "as soon as possible," but not later than 24 hours of knowledge of the spill. The Health and Safety Code requires "immediate" reporting of sewage spills to the local health officer and it gives the health officer the authority to close beaches if the spill reaches recreational waters. Because of the lack of specificity (i.e., "as soon as possible" and "immediately") as to when someone with knowledge of a sewage spill is required to report the spill to the local health officer, it is possible that the requirements could cause confusion and result in the untimely reporting of spills.

According to the environmental protection group Santa Monica Baykeeper, "immediate" should mean within 15 minutes of knowledge of a spill. At the October 26' 2007 Public Health Commission meeting, a representative the Department of Public Health's Recreational Health Program stated that it expected notification within at least two hours of knowledge of a spill. He stated that the dischargers in some cases may need this time to determine the spill's location and magnitude. Based on our interview with Santa Monica Baykeeper, if a spill occurred near the beach, or elsewhere within the Santa Monica Bay Watershed Area, the Los Angeles County Department of Public Health's reporting standard could jeopardize public health and safety, and therefore is not acceptable. Similar concerns were also expressed by representatives from the Los Angeles County Department of Beaches and Harbors and the Los Angeles County Fire Department/Lifeguard Division.

Recommendations

4. **The Board of Supervisors instruct the Department of Public Health, in collaboration with interested environmental groups and sewer system owners/operators, the Department of Beaches and Harbors, Fire Department/Lifeguard Division, and Los Angeles Regional Water Quality Control Board, to define the mandatory timeframe for reporting a sewage spill to the County's Public Health Officer.**

5. **To make the timeframe determined above an enforceable requirement in Los Angeles County, the Board of Supervisors**

consider requesting the Los Angeles Regional Water Quality Control Board to amend the Wastewater Discharge Requirements to include a requirement that specifies when the County's Public Health Officer should be notified of a sewage spill.

6. **The Board of Supervisors instruct the Department of Public Health, in consultation with the Public Health Commission, to develop an educational program for owners/operators of sanitary sewer systems, which shall include, but not limited to, clarification on how soon the public health officer must be contacted after a spill and the names and telephone numbers of all County representatives that should be notified following a sewage spill.**

Enforcement Methods

County Counsel provided a legal analysis of existing laws and options for strengthening them to improve enforcement methods that govern the notification of the local public health officer of sewage spills. County Counsel will submit its legal analysis to the Board of Supervisors under a separate cover. We have summarized Counsel's analysis below.

County Counsel determined that currently two provisions exist that provide criminal penalties for not reporting sewage spills, the Health and Safety Code and Water Code. The Health and Safety Code Section 5411.5 provides that failure of a person12 to immediately notify the local public health officer in the event of a sewage spill that may enter State waters is guilty of a misdemeanor and provides for punishment by fine of not less than $500, but no more than $1,000, or imprisonment for less than one year, or both. 13

Under Water Code Section 13271 any person who causes or permits sewage to be discharged to the waters of the State and fails to notify the State's Office of Emergency Services as soon as: (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures..." is guilty of misdemeanor" and shall be punished by a fine of not more than $20,000 or imprisonment for not more than one year, or both.

Need for Clarification of Laws Governing Notification of Public Health Officer

The Health and Safety Code and Water Code both make failing to provide the required notice of a sewage spill a crime. While the Health and Safety Code is clear that a person who causes or permits a sewage spill is required to notify the local health officer,

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12 A "person" in the Health and Safety Code is defined to include any city, county, district, the State, or any department of agency thereof.

13 According to the District Attorney's Environmental Crimes Office, without clear evidence of wrongdoing on the part of the person who failed to notice the local public health officer of a sewage spill, it is unlikely that a prosecutor would pursue criminal charges.

some owners/operators of sanitary sewer systems appear confused as to who must be notified and when. This is because the Water Code designates the Office of Emergency Service as the entity to be notified, not the local public health officer. Under the Water Code, the Governor's Office of Emergency Services is required to notify the local public health officer and the Water Board.

Recommendation

7. **The Board of Supervisors consider seeking an amendment to the Water Code to include a requirement that the local public health officer be immediately notified in the event of a sewage spill.**

Need for Amendment to State Law to Establish a Civil Fine

The Board of Supervisors should seek an amendment to State Law to include a civil fine for violating sewage spill reporting requirements, an amendment to the Health and Safety Code and Water Code may also be needed in order to increase their monetary penalty, which is currently set at a maximum of $1,000 and $20,000 respectively. This is because civil fines usually are less than criminal fines since criminal fines are considered more punitive. However, the amount of any civil fine will be limited by what the court determines is reasonable.

If the Board chooses to establish a local law, it would be enforceable on persons only in the County's unincorporated area. As a result, it would not be effective in influencing city run operations, which account for approximately one-half of all remaining sanitary sewer systems operating in Los Angeles County.

To obtain more legal options for pursuing persons who fail to provide the required notification to the local health officer, the Board of Supervisors should seek State legislation adding a civil penalty for failure to notify. The Health and Safety Code Section 5415 and the Water Code Section 13002 allow local governments to enact additional regulations relating to the disposal of sewage as long as those regulations do not conflict with State law.

Recommendation

8. **The Board of Supervisors consider seeking a change in State law to permit civil fines to be imposed on persons who do not immediately notify the local public health officer when a sewage spill occurs.**

Review of Prior Sewage Spills

Attachment #3 is a listing of 208 sewage spills of 1,000 gallons or more that are known to have occurred within the Santa Monica Bay Watershed Area during January 2002 through July 2006. The listing was compiled from information provided by the

Department of Public Health, the Department of Public Works, the Los Angeles County Sanitation Districts, the Los Angeles City Department of Sanitation, and Heal the Bay.

Of the 208 sewage spills, five (2.4%) resulted in beach closures. In each instance, we determined that, upon being notified of the sewage spill, the Department of Public Health, the Department of Beaches and Harbors, and the Fire Department all acted timely in notifying the public of the beach closures and possible health threat. However, our review identified deficiencies in the protocols for reporting after-hour sewage spills to the County Public Health Officer and in the Public Health Officer's documentation of reported sewage spills.

After-hour Reporting of Sewage Spills

The Department of Public Health's Recreational Health Program (Recreational Health) is responsible for receiving and responding to all calls regarding sewage spills. If a sewage spill occurs after Recreational Health's normal business hours, from 7 AM to 5:30 PM, Monday through Friday, responders and agencies have been instructed to report the spill to the County operator. The County operator is responsible for contacting either the Director of Recreational Health Program or the Bureau Director for Environmental Protection by telephone and providing information such as the location of the spill, cause of the spill, name and telephone number of the person reporting the spill, an estimate of the amount of sewage spilled, and whether it reached, or is likely to reach receiving waters. If the County operator cannot make direct contact with the director, they are required to leave a voicemail message regarding the spill. In addition, if the spill is less than 1,000 gallons, and not likely to reach the County's recreational waters, Recreational Health has instructed the County operator to report the spill the next business day.

Communication breakdowns between the County operator and the Public Health Officer, or delays in notifying the Public Health Officer that a sewage spill has occurred, can result in the public's health being jeopardized. As discussed earlier in this report, our review of the Culver City sewage spill disclosed that on August 6, 2006 the Culver City Fire Department contacted the County operator and reported that the City's main sewage pumps had shut down and sewage was surfacing from manhole covers. However, according to Recreational Health's management, they have no record of the County operator reporting the spill to Recreational Health. As a result, the Public Health Officer did not become aware of problems at Culver City's pumping station until two days later on August 8, 2006 when Culver City's Stormwater Manager contacted the director of Recreational Health Program to notify him of the spill.

As part of our review, we interviewed environmental health representatives from the counties of Orange and San Diego. According to their representatives, reports of sewage spills occurring after normal business hours are always received by a "live" person who has an emergency contact list containing the names and telephone numbers of several environmental health employees who are on-call. In Orange County, at least five employees are included on the emergency contact list. In both

counties, the person taking the spill report must speak to someone on their contact list to report the sewage spill. Messages cannot be left on voicemail or answering machine systems.

Recommendations

Board of Supervisors instruct the Department of Public Health to:

9. **Provide the County operator with an emergency contact list that contains the names and telephone numbers of at least three employees who will be on-call to receive reports of sewages spills after normal business hours and to ensure that the contact list is always accurate and up-to-date.**

10. **Instruct the County operator in writing to report all sewage spills to an employee listed on the emergency contact list and to make repeated telephone calls if necessary until an employee is reached, and to discontinue the practice of leaving messages on voicemail or answering machine systems.**

Documenting Sewage Spills

Of the 208 spills allegedly reported to the Public Health Officer, 189 (91%) could not be traced to Recreational Health's records. According to Recreational Health management, this discrepancy is likely do to its policy of not documenting spills that were either: 1) initially reported as less than 1,000 gallons; 2) reported as contained; or 3) not likely to affect public health/safety. In addition, according to management, some spills may have been reported to other sections within Public Health and not forwarded to Recreational Health Program.

At the Governor's Office of Emergency Services (OES), all reports of sewage spills are made to a central location and recorded. OES prepares a written report acknowledging the spill and issues a reference number to the agency reporting the spill, which documents their report and provides a reference if additional follow up or action is needed. A similar system should be implemented at Public Health to ensure that all reports of sewage spills can be accounted for and that documentation exists for all corresponding action (if any) taken by the Public Health Officer. This information can also be useful to the Public Health Officer in identifying problem areas such that targeted educational programs can be developed to help protect public health.

Recommendations

The Board of Supervisors instruct the Department of Public Health to:

11. **Develop policies and procedures to centralize the reporting and tracking of all sewage spills within the Department's Recreational Health Program.**

12. **Require Recreational Health Program to immediately begin documenting and tracking all reports of sewage spills, and providing reference/tracking numbers to persons reporting sewage spills.**

Additional Issue

Cost Recovery

During the December 14, 2006 Public Health Commission meeting, representatives from Beaches and Harbors and the Fire Department/Lifeguard Division commented on the costs incurred by their agencies in responding to sewage spills and the need for a mechanism to recover their costs. They specifically cited the January 2006 Los Angeles County Sanitation Districts' Manhattan Beach sewage spill. This spill occurred over an 18 hour period with over a million gallons in raw sewage affecting the beach. The Fire Department was responsible for posting and enforcing the four day beach closure while the Department of Beaches and Harbors helped contain the sewage and placed barricades around the spill site.

Although no specific cost estimates were provided by the two County departments, their representatives stated their costs were significant. A representative from the Los Angeles County Sanitation Districts stated that his agency is willing to reimburse the County departments for exceptional costs (e.g., use of heavy equipment, unplanned overtime, etc.) incurred in assisting the Districts in its response to the Manhattan Beach sewage spill.

Recommendation

13. **The Board of Supervisors instruct the Department of Beaches and Harbors and the Fire Department to submit a reimbursement claim to the Los Angeles County Sanitation Districts for costs incurred in responding to the January 2006 Manhattan Beach sewage spill.**

Regional Water Board Membership

At the request of the County's Public Health Commission, the Auditor-Controller and County Counsel reviewed the membership requirements for the State's regional water boards to determine if at least one member was required to have a public health background. Our review determined that none of the water boards' seven membership categories require a background in public health.

Water Code Section 13201(a) designates the membership composition of each regional water board. The Governor appoints the nine-member regional water board whose members serve four-year terms. All nine board members must reside in, or have a principal place of business in the region that they serve and appointments must be in the following categories:

- one person with water supply, conservation and production,
- one person with irrigated agriculture,
- one person with industrial water use,
- one person with municipal government,
- one person with county government,
- one person with a nongovernmental organization associated with recreation, fish or wildlife, and
- three persons must not be specifically associated with any of the foregoing categories, two of whom shall have special competence in areas related to water quality problems.

Currently, the Los Angeles Regional Water Board's recreation, fish, or wildlife category is vacant and according to a Water Board representative, a person with a public health background would likely qualify for appointment to this category. To ensure that the Water Board's membership includes someone with expertise in the protection of public health and disease prevention, the Board of Supervisors should consider requesting the Governor to fill the Water Board's vacant membership position with someone with an expertise in public health. In addition, the Board of Supervisors should consider seeking an amendment to the Water Code to require that at least one of the Water Board's seven membership categories includes someone with a public health background.

Recommendations

The Board of Supervisors consider:

14. **Requesting the Governor to appoint someone with an expertise in public health to fill the vacant membership position on the Los Angeles Regional Water Board.**

15. **Seeking an amendment to the Water Code to require that at least one of the Water Board's seven membership categories include someone with a public health background.**

Additional Information

Effective February 1, 2007, the Water Board's "county government" appointment category will be vacant due to the appointee's resignation. However, due to an amendment to the Water Code, effective January 2004, vacancies in this appointment category must now be filled by a county supervisor. Since the Los Angeles Regional

Water Board's jurisdiction also includes Ventura County, the Governor's selection for the county government category would be a county supervisor from either Los Angeles or Ventura County. Barring any additional resignations by members of the Los Angeles Regional Water Board, new appointments to the Water Board would not occur until 2008, which is when the four-year terms expire for two Water Board members appointed to the "general category."

Recommendation

None.

COUNTY OF LOS ANGELES

PUBLIC HEALTH COMMISSION

PUBLIC HEALTH COMMISSIONERS

Larry Roberts, M.P.A., Chairperson
Second District

Michelle Anne Bholat, M.D., M.P.H., Vice-Chairperson
Fourth District

Lester Breslow, M.D., M.P.H.
Third District

Keri Gardner, M.D., M.P.H.
Fifth District

Sarita A. Mohanty, M.D., M.P.H.
First District

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC HEALTH
241 N. Figueroa St., Room 109
Los Angeles, CA 90012
(213) 240-8377
(213) 481-2306 FAX

January 23, 2007

TO: Each Supervisor

FROM: Larry Roberts, Chairman
Public Health Commission

SUBJECT: **BOARD REQUESTED REVIEW OF FAILED PROTOCOLS THAT DELAYED NOTIFICATION OF THE COUNTY PUBLIC HEALTH OFFICER OF A SEWAGE SPILL ON AUGUST 8, 2006**

On September 19, 2006, the Board of Supervisors instructed the Auditor-Controller, in consultation with the Public Health Commission, to report back on the failed protocols that delayed notification of the County Public Health Officer of the August 8, 2006 raw sewage spill onto County beaches.

The Public Health Commission has worked very closely with the Auditor-Controller, and at its January 11, 2007 meeting, voted unanimously to support the recommendations that the Auditor-Controller is submitting to your Board. Also, at the pleasure of the Board, the Commission will provide quarterly meetings to address this issue.

If you have any questions and/or need additional information, please let me know.

LR:ah

c: Each Public Health Commissioner
County Counsel
Executive Officer, Board of Supervisors
Director of Public Health and Health Officer
Acting Chief Deputy, Public Health
J. Tyler-McCauley, Auditor-Controller
DeWitt Roberts, Auditor-Controller
Stephen Cain, L.A. Regional Water Board

California Regional Water Quality Control Board
Los Angeles Region

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Cal/EPA Secretary

Arnold Schwarzenegger
Governor

January 24, 2007

The Honorable Zev Yaroslavsky, Chair
Los Angeles County Board of Supervisors
821 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

RE: Public Health Commission Recommendations on Reporting Protocols for Sewage Spills in Los Angeles County

Dear Supervisor Yaroslavsky:

As is the County of Los Angeles, the Los Angeles Regional Quality Control Board is committed to protecting ground- and surface water quality. It has long considered a top priority preventing sewage spills and similar releases that threaten human health, the environment and the Region's coastal economy.

In response to Supervisor Knabe's September 19, 2006 Board Motion, the County's Auditor-Controller and Public Health Commission have examined and made a number of recommendations regarding municipal, county and state statutes, standards and procedures pertaining to the operation and maintenance of wastewater treatment facilities, as well as to the monitoring and reporting of unauthorized releases from these facilities. The Regional Board was pleased to assist the Auditor-Controller and Commission with the investigation and, in doing so, forge a lasting partnership dedicated to protecting human health and the environment.

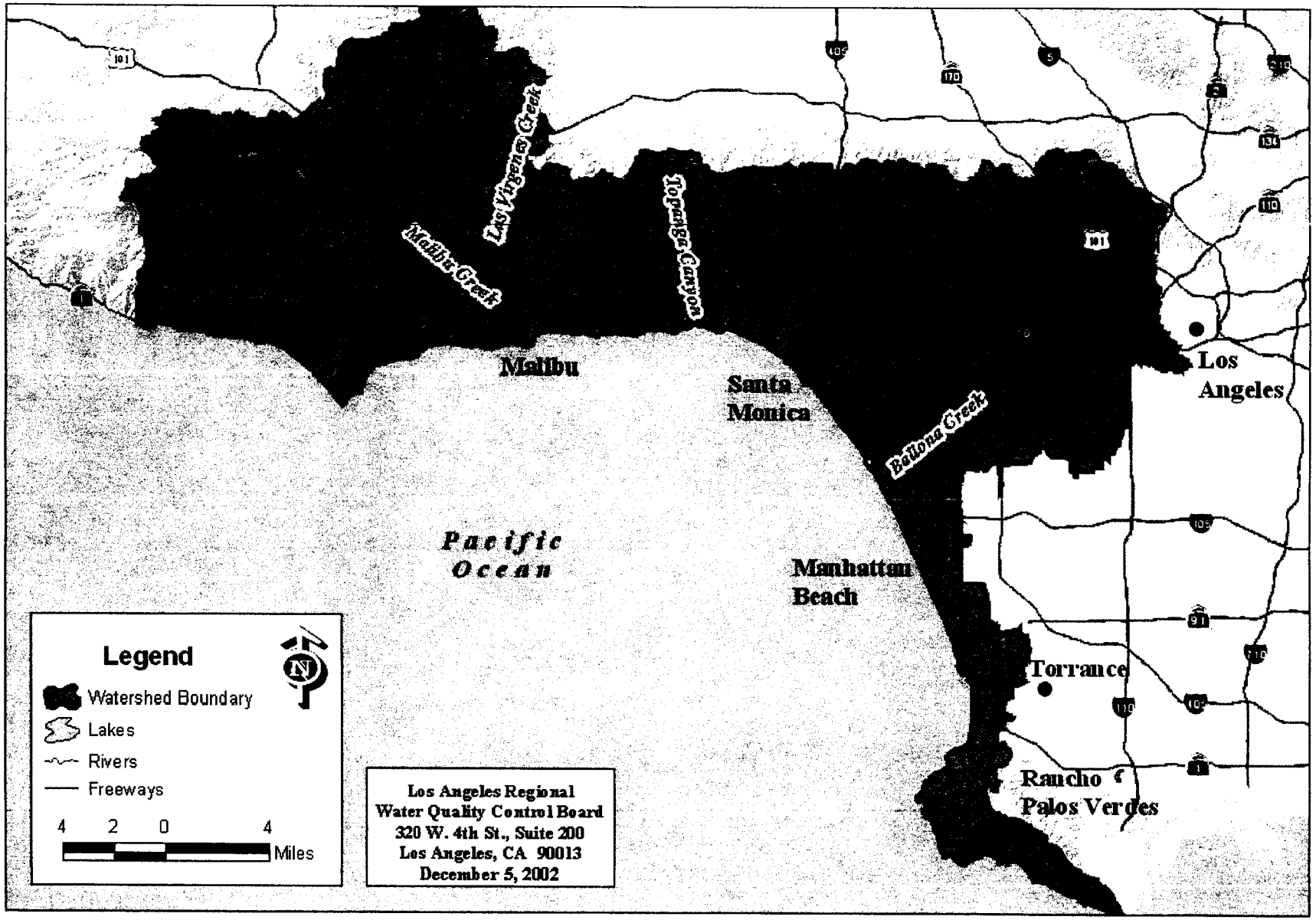
As they are understood by the Regional Board, the recommendations being forwarded center on ensuring that wastewater treatment facilities are properly maintained; unauthorized releases be immediately reported to first response agencies, including the Los Angeles County Department of Public Health; clarity and specificity be brought to regulations governing maintenance and reporting requirements; penalties be established or increased for failure to follow maintenance or reporting requirements; data on unauthorized releases be made available for public review; and expertise in public health be a consideration when appointing individuals to the Regional Board. In that these recommendations, individually and collectively, compliment the Regional Board's mission and existing protocols and programs to protect water quality, they are supported by the Regional Board.

The Los Angeles Regional Water Quality Control Board very much looks forward to continuing and strengthening its partnership with the County of Los Angeles and its Auditor-Controller and Public Health Commission.

Sincerely,

Jonathan S. Bishop
Executive Officer

Santa Monica Bay Watershed Management Area



Attachment I

CULVER CITY FIRE DEPARTMENT
INCIDENT REPORT
Universe: NONE Population: NONE Repeat Set: NONE

INCIDENT ID#	20062478
INCIDENT DATE	08/06/2006
DATE REPORT ENTERED	08/07/2006
RECORD COMPLETE	Y
DISPATCH TIME	22:18:11
ROLLOUT TIME	22:20:21
ARRIVAL TIME	22:23:14
RESPONSE (IN MIN)	2
CODE 3 RESPONSE	N
JURISDICTIONAL STATION	23
SHIFT	B
REPORTED BY	CRONE CRONE
UNITS ON SCENE	E2
SITUATION FOUND	911 Citizen complaint 400 Hazardous condition, other
MUTUAL AID	N None or no mutual aid involved
METHOD OF ALARM	01 Telephone
ADDRESS/LOCATION	11209 HUNTLEY PL
ZIP CODE	90230
NUMBER OF PERSONNEL	3
ENGINES USED	1
OTHER VEHICLES USED	0
SPECIFIC PROPERTY USE	
ACTION TAKEN	80 Information, investigation & enforcement, other 84 Refer to proper authority
AREA OF FIRE ORIGIN	
LEVEL OF FIRE ORIGIN	
FORM OF HEAT	
IGNITION FACTOR	
MATERIAL TYPE	
MATERIAL FORM	
IGNITION FACTOR	
EXTINGUISHMENT METHOD	
TOTAL DOLLAR LOSS	
NUMBER OF STORIES	
FLAME DAMAGE	
SMOKE DAMAGE	
TYPE CAUSING MOST SMOKE	
TYPE CAUSING MOST SMOKE	
AVENUE OF SMOKE TRAVEL	
DETECTOR PERFORMANCE	
SPRINKLER PERFORMANCE	
OCCUPANT LAST	
FIRST	
ADDRESS	11209 HUNTLEY PL
PHONE	
RESPONSINBLE PARTY	
ADDRESS	11209 HUNTLEY PL
PHONE	
EQUIPMENT INVOLVED	
RIC NARRATIVE	THERE WAS NO RIC NEEDED FOR THIS CALL.
INCIDENT NARRATIVE	E2 responded to the report of sewage in the street. E2 arrived and met with city crews working on the problem since 11:00 that day. The main pump for the area had shut down and the sewage had backed-up in the system to the point where it was surfacing from the man hole covers. The run off appeared clear. LA County Health Haz Mat was contacted by the on-duty Battalion Chief and he was directed to contact the Health Department at 213-974-1234. LA County Department of Health Services was contacted at approximately 2300 hrs and a report was given to the on duty operator. The Dept of Health Services stated

	that they would be sending inspectors out the next day and conduct monitoring. Street supervisor, Ben Tenario stated the pump was operating now, and they would vacuum the gutters and treat the area with bleach. CCPD Sgt. Massey was on scene and was in the process of arranging barricade to limit the exposure to the spill. E2 cleared.

REPORTED WASTEWATER SPILL COMPARISON

January 2002 - July 2006

The following represents a composite listing of all sewage discharge* of 1,000 gallons or more, believed to have occurred in the Santa Mor between January 2002 and July 2006. The information was provided by the Los Angeles County Departments of Public Health and Public County Sanitation Districts, the Los Angeles City Bureau of Sanitation, and Heal the Bay. Because each of these agencies has different re not all information for each category was available.

Data From	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2002						
2	1/3/2002	unknown	135th St.	L.A. City SD	unknown	1,768	unknown
2	1/5/2002	unknown	Pennsylvania	L.A. City SD	unknown	5,927	unknown
2	1/6/2002	unknown	Edgemont	L.A. City SD	unknown	1,395	unknown
2	1/6/2002	unknown	Motor	L.A. City SD	unknown	5,431	unknown
2	1/9/2002	unknown	1st	L.A. City SD	unknown	80,640	unknown
2	1/17/2002	unknown	9th	L.A. City SD	unknown	1,052	unknown
2	1/20/2002	unknown	Beverly	L.A. City SD	unknown	4,643	unknown
2	1/31/2002	unknown	Weyburn	L.A. City SD	unknown	19,978	unknown
2	2/9/2002	unknown	Franklin	L.A. City SD	unknown	3,386	unknown
2	2/11/2002	unknown	Franklin	L.A. City SD	unknown	2,352	unknown
5	2/22/2002	4/25/2002	404 Mesa Rd	L.A. City SD	Yes	1,381	Monitored microbial data - n
2	3/4/2002	unknown	Tigertail	L.A. City SD	unknown	3,750	unknown
2	3/9/2002	unknown	Normandie	L.A. City SD	unknown	4,185	unknown
2	3/25/2002	unknown	Larchmont	L.A. City SD	unknown	2,244	unknown
2	4/17/2002	unknown	Lankershim	L.A. City SD	unknown	1,537	unknown
3	5/16/2002	unknown	Arcadia-Sierra Madre	L.A. County SD	unknown	2,300	unknown
2	6/3/2002	unknown	Citrus	L.A. City SD	unknown	4,488	unknown
2	6/27/2002	unknown	Fairfax	L.A. City SD	unknown	4,129	unknown
2	6/29/2002	unknown	Broadway	L.A. City SD	unknown	4,320	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2002 (cont)						
2	7/19/2002	unknown	Melrose	L.A. City SD	unknown	1,860	unknown
2	7/26/2002	unknown	Wilshire Blvd	L.A. City SD	unknown	7,069	unknown
2	8/12/2002	unknown	Las Palmas	L.A. City SD	unknown	2,805	unknown
2	8/30/2002	unknown	Barham	L.A. City SD	unknown	1,419	unknown
2	9/8/2002	unknown	Glen Ellen	L.A. City SD	unknown	35,563	unknown
5	9/8/2002	9/8/2002	Arroyo Seco	L.A. County SD	Yes	28,000	none - called LB**
1	10/13/2002	10/13/2002	Las Virgenes Creek, Calabasas,		Yes	10,000	none - DNRO***
2	10/22/2002	unknown	76th St.	L.A. City SD	unknown	1,531	unknown
2	10/31/2002	unknown	Calabasas	L.A. City SD	unknown	38,601	unknown
2	11/2/2002	unknown	Centinela Ave	L.A. City SD	unknown	1,275	unknown
3	11/8/2002	unknown	Victoria St.	L.A. County SD	unknown	86,000	unknown
2	11/4/2002	unknown	Jupiter	L.A. City SD	unknown	1,600	unknown
2	11/10/2002	unknown	Gothic	L.A. City SD	unknown	1,787	unknown
3	11/15/2002	unknown	Huntington Park	L.A. County SD	unknown	1,100	unknown
2	11/25/2002	unknown	Sunset	L.A. City SD	unknown	1,967	unknown
2	11/26/2002	unknown	Berendo	L.A. City SD	unknown	2,369	unknown
2	12/2/2002	unknown	1st	L.A. City SD	unknown	14,463	unknown
2	12/9/2002	unknown	Doheny	L.A. City SD	unknown	1,352	unknown
2	12/14/2002	unknown	Victory	L.A. City SD	unknown	1,642	unknown
2	12/16/2002	unknown	Stradella	L.A. City SD	unknown	1,122	unknown
3	12/17/2002	unknown	Arcadia-Sierra Madre	L.A. County SD	unknown	3,400	unknown
	2003						
3	1/6/2003	unknown	Joint Outfall J - Unit 1G	L.A. County SD	unknown	21,000	DNRO
2	1/10/2003	unknown	Beverwil	L.A. City SD	unknown	6,233	unknown
2	1/10/2003	unknown	Manning Ave R/W	L.A. City SD	unknown	1,495	unknown
2	1/27/2003	unknown	Graysby Ave	L.A. City SD	unknown	3,100	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2003 (cont)						
2	1/31/2003	unknown	James M. Wood	L.A. City SD	unknown	1,407	unknown
3	2/12/2003	unknown	Trunk "E"	L.A. County SD	unknown	1,500	unknown
3	2/12/2003	unknown	Slack Rd Trunk	L.A. County SD	unknown	1,800	unknown
3	2/12/2003	unknown	Manchester-Vermont Diversion	L.A. County SD	unknown	2,700	unknown
3	2/12/2003	unknown	Palos Verdes North Slope Trunk	L.A. County SD	unknown	17,000	unknown
3	2/12/2003	unknown	Western Ave Pumping Plant	L.A. County SD	unknown	7,800	unknown
2	2/12/2003	unknown	42ND	L.A. City SD	unknown	1,274	unknown
3	3/6/2003	unknown	Scott Ave Trunk	L.A. County SD	unknown	6,800	unknown
3	3/15/2003	unknown	Joint outfall A - Unit 9	L.A. County SD	unknown	25,000	unknown
2	3/15/2003	unknown	42ND St/Kansas	L.A. City SD	unknown	8,658	unknown
2	3/29/2003	unknown	Pico & Santee	L.A. City SD	unknown	1,174	unknown
2	3/30/2003	unknown	Lankershim	L.A. City SD	unknown	84,640	unknown
3	4/7/2003	unknown	56th St - East Trunk	L.A. County SD	unknown	10,000	unknown
2	4/10/2003	unknown	Fickett	L.A. City SD	unknown	1,074	unknown
2	4/13/2003	unknown	Mountain View	L.A. City SD	unknown	2,536	unknown
2	4/14/2003	unknown	Windsor Blvd	L.A. City SD	unknown	5,685	unknown
2	4/25/2003	unknown	Riverside	L.A. City SD	unknown	1,496	unknown
2	5/4/2003	unknown	Ave 52	L.A. City SD	unknown	2,992	unknown
2	5/14/2003	unknown	E	L.A. City SD	unknown	1,041	unknown
2	5/29/2003	unknown	Sepulveda	L.A. City SD	unknown	1,288	unknown
2	6/3/2003	unknown	Shoshone	L.A. City SD	unknown	2,800	unknown
2	6/7/2003	unknown	Queensbury	L.A. City SD	unknown	2,630	unknown
2	6/11/2003	unknown	Vermont Ave	L.A. City SD	unknown	1,856	unknown
3	6/11/2003	unknown	Holmes-Willowbrook Trunk	L.A. County SD	unknown	2,800	unknown
2	6/14/2003	unknown	Sullivan Canyon Rd	L.A. City SD	unknown	1,754	unknown
2	6/16/2003	unknown	Crandal	L.A. City SD	unknown	1,847	unknown
2	6/22/2003	unknown	Willis Ave	L.A. City SD	unknown	38,657	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2003 (cont)						
2	6/30/2003	unknown	Vernon	L.A. City SD	unknown	1,064	unknown
2	7/16/2003	unknown	Doheny	L.A. City SD	unknown	1,614	unknown
3	8/11/2003	unknown	Vesta St Pumping Plant	L.A. County SD	unknown	89,600	unknown
2	8/12/2003	unknown	Jupiter	L.A. City SD	unknown	1,343	unknown
2	8/28/2003	unknown	Topanga Canyon	L.A. City SD	unknown	2,998	unknown
3	9/11/2003	unknown	Inglewood Trunk #2	L.A. County SD	unknown	3,000	unknown
2	9/21/2003	unknown	Laurel	L.A. City SD	unknown	997	unknown
2	9/26/2003	unknown	Lake	L.A. City SD	unknown	1,200	unknown
2	10/16/2003	unknown	Santa Monica	L.A. City SD	unknown	2,557	unknown
2	11/3/2003	unknown	Doheny Dr	L.A. City SD	unknown	1,911	unknown
2	11/3/2003	unknown	Doheny Dr	L.A. City SD	unknown	1,346	unknown
2	11/4/2003	unknown	Esperanza	L.A. City SD	unknown	3,943	unknown
1	11/13/2003	11/13/2003	Lincoln Court Santa Monica	City of Santa Monica	Yes	2,000	Beach Closed
3	11/29/2003	unknown	5th St East Trunk	L.A. County SD	unknown	22,000	unknown
3	12/17/2003	unknown	Scott Ave Trunk	L.A. County SD	unknown	25,000	unknown
2	12/23/2003	unknown	Parthenia St.	L.A. City SD	unknown	4,139	unknown
2	12/26/2003	unknown	Selma	L.A. City SD	unknown	14,404	unknown
	2004						
2	1/5/2004	unknown	Dillion St Walk	L.A. City SD	unknown	10,569	unknown
2	2/5/2004	unknown	Anaheim St	L.A. City SD	unknown	3,536	unknown
2	2/7/2004	unknown	Nichols Canyon Place	L.A. City SD	unknown	1,208	unknown
2	2/12/2004	unknown	Escalon	L.A. City SD	unknown	1,608	unknown
5	3/24/2004	3/24/2004	5400 Thornburn St.	L.A. City SD	Yes	1,740	None - Delayed reporting
1	3/25/2004	3/25/2004	Figueroa & Sepulveda	L.A. County SD	Yes	2,000	None- DNRO
2	3/27/2004	unknown	225 26th St.	L.A. City SD	unknown	4,675	unknown
1	4/7/2004	4/8/2004	Crest Rd & Hawthorne RPV		Yes	6,300	None - Ocean entry not veri

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2004 (cont)						
3	4/21/2004	unknown	Soledad Canyon Trunk	L.A. County SD	unknown	68,000	unknown
1	4/25/2004	4/26/2004	Dorothy Dr, Monte Nido	Las Virgenes Water	Yes	1,000-5,000	None - DNRO
4	5/2/2004	5/3/2004	Avalon Beach, Avalon	City of Avalon	No****	4,800	Beach Closed
2	5/11/2004	unknown	Fountain Ave	L.A. City SD	unknown	1,703	unknown
2	5/16/2004	unknown	Milner	L.A. City SD	unknown	1,637	unknown
2	5/17/2004	unknown	Terminal	L.A. City SD	unknown	19,388	unknown
2	5/25/204	unknown	Terminal	L.A. City SD	unknown	19,000	unknown
2	6/8/2004	unknown	79th St.	L.A. City SD	unknown	1,753	unknown
3	6/24/2004	unknown	Scott Ave Trunk	L.A. County SD	unknown	1,100	unknown
3	7/9/2004	unknown	Scott Ave Relief Trunk	L.A. County SD	unknown	3,600	unknown
5	8/3/2004	8/4/2004	529 Westgate, L.A.	L.A. City SD	Yes	2,244	None - DNRO
2	9/2/2004	unknown	Petit Ave.	L.A. City SD	unknown	1,428	unknown
2	9/7/2004	unknown	Winnetka	L.A. City SD	unknown	3,366	unknown
1	9/12/2004	9/12/2004	Sapphire St., RB		Yes	10,000	Beach Closed
1	9/29/2004	9/30/2004	657 2ND st., HB		Yes	1,000	Beach Closed
2	12/8/2004	unknown	Cypress & Division	L.A. City SD	unknown	5,602	unknown
3	12/23/2004	unknown	La Habra Heights Trunk Section	L.A. County SD	unknown	9,500	unknown
1	12/26/2004	12/26/2004	17705 S. Western Ave Torrance		Yes	3,000-4,000	None - DNRO
3	12/28/2004	unknown	Manchester - Vermont Diversion	L.A. County SD	unknown	2,500	unknown
	2005						
5	1/7/2005	unknown	Arlington Ave Extension	L.A. County SD	unknown	3,000	unknown
5	1/7/2005	unknown	East Imperial Hwy Trunk	L.A. County SD	unknown	1,500	unknown
5	1/9/2005	unknown	East Imperial Hwy Trunk	L.A. County SD	unknown	5,000	unknown
5	1/9/2005	unknown	Alhambra Rd Trunk	L.A. County SD	unknown	300,000	unknown
5	1/9/2005	unknown	Castaic Pumping Plant	L.A. County SD	unknown	38,000	unknown
5	1/9/2005	unknown	Palos Verdes North Slope Trunk	L.A. County SD	unknown	25,000	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2005 (cont)						
2	1/9/2005	unknown	Colfax & Chiquita	L.A. City SD	unknown	27,347	unknown
2	1/9/2005	unknown	Ave 36 & Eagle Rock	L.A. City SD	unknown	166,000	unknown
2	1/9/2005	unknown	Ave 34 & Eagle Rock	L.A. City SD	unknown	270,985	unknown
2	1/9/2005	unknown	Ave 34 & Verdugo Rd	L.A. City SD	unknown	206,785	unknown
2	1/9/2005	unknown	Ave 33 & Verdugo	L.A. City SD	unknown	328,211	unknown
2	1/9/2005	unknown	Verdugo N/O Ave 33	L.A. City SD	unknown	334,710	unknown
2	1/9/2005	unknown	Moss Ave & Eagle Rock	L.A. City SD	unknown	145,000	unknown
2	1/9/2005	unknown	Belden & Hollywood	L.A. City SD	unknown	11,714	unknown
2	1/9/2005	unknown	Gower	L.A. City SD	unknown	11,713	unknown
2	1/9/2005	unknown	Canyon	L.A. City SD	unknown	5,857	unknown
2	1/9/2005	unknown	Hollywood	L.A. City SD	unknown	117,600	unknown
2	1/9/2005	unknown	Benedict Cyn/Clear View	L.A. City SD	unknown	10,250	unknown
2	1/9/2005	unknown	Elsinore	L.A. City SD	unknown	2,928	unknown
2	1/9/2005	unknown	Rampart	L.A. City SD	unknown	5,857	unknown
2	1/9/2005	unknown	Broadway	L.A. City SD	unknown	5,984	unknown
2	1/9/2005	unknown	Cincinnatti	L.A. City SD	unknown	2,928	unknown
2	1/10/2005	unknown	York	L.A. City SD	unknown	1,440	unknown
2	1/10/2005	unknown	Toland	L.A. City SD	unknown	326,385	unknown
2	1/10/2005	unknown	Figueroa & Merridian	L.A. City SD	unknown	114,477	unknown
2	1/10/2005	unknown	Ave 56 & Buchanan	L.A. City SD	unknown	179,246	unknown
2	1/10/2005	unknown	Ave 56 & Carlotta	L.A. City SD	unknown	8,906	unknown
2	1/10/2005	unknown	1903 El Cerrito	L.A. City SD	unknown	64,875	unknown
2	1/10/2005	unknown	Franklin Ave & Outpost Dr	L.A. City SD	unknown	69,000	unknown
2	1/10/2005	unknown	Coronado	L.A. City SD	unknown	2,928	unknown
2	1/28/2005	unknown	Woodman	L.A. City SD	unknown	8,138	unknown
5	2/18/2005	2/18/2005	Marie Canyon, Malibu	L.A. County SD	Yes	102,000	None - Controlled release o
2	2/19/2005	unknown	Tujunga Ave	L.A. City SD	unknown	767,820	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2005 (cont)						
2	2/19/2005	unknown	Chiquita	L.A. City SD	unknown	69,243	unknown
2	2/19/2005	unknown	Ave 45 & York	L.A. City SD	unknown	970,890	unknown
2	2/19/2005	unknown	Lincoln	L.A. City SD	unknown	50,876	unknown
2	2/19/2005	unknown	Toland	L.A. City SD	unknown	36,960	unknown
2	2/19/2005	unknown	Ave 56 & Buchanan	L.A. City SD	unknown	1,342,794	unknown
2	2/19/2005	unknown	Ave 60 & 110 FWY	L.A. City SD	unknown	1,394,060	unknown
2	2/19/2005	unknown	Ave 56 & Carlotta	L.A. City SD	unknown	10,500	unknown
2	2/19/2005	unknown	Eagle Rock	L.A. City SD	unknown	29,400	unknown
2	2/19/2005	unknown	Eagle Rock	L.A. City SD	unknown	63,008	unknown
2	2/19/2005	unknown	Ave 34 & Verdugo	L.A. City SD	unknown	66,000	unknown
2	2/19/2005	unknown	Verdugo	L.A. City SD	unknown	73,840	unknown
2	2/19/2005	unknown	Eagle Rock	L.A. City SD	unknown	63,008	unknown
5	2/19/2005	unknown	East Imperial Hwy Trunk	L.A. County SD	unknown	75,000	unknown
5	2/19/2005	unknown	Alhambra Rd Trunk	L.A. County SD	unknown	20,000	unknown
5	2/21/2005	unknown	East Imperial Hwy Trunk	L.A. County SD	unknown	25,000	unknown
5	2/21/2005	unknown	Alhambra Rd Trunk	L.A. County SD	unknown	8,500	unknown
2	2/22/2005	unknown	Leslie & Omaha	L.A. City SD	unknown	10,080	unknown
2	2/22/2005	unknown	Comstock	L.A. City SD	unknown	1,283	unknown
2	2/22/2005	unknown	Serrano/Rosewood	L.A. City SD	unknown	4,950	unknown
5	2/24/2005	unknown	Janet Lane Trunk	L.A. County SD	unknown	3,400	unknown
2	3/14/2005	unknown	Sepulveda	L.A. City SD	unknown	2,025	unknown
5	4/3/2005	4/4/2005	2200 N. Laurel Cyn Blvd., L.A.	L.A. City SD	Yes	8,413	None - DNRO
5	4/28/2005	unknown	Arizona Ave Trunk	L.A. County SD	unknown	2,700	unknown
4	5/28/2005	unknown	610 South Harvard Blvd	L.A. City SD	unknown	2,043	unknown
4	6/14/2005	unknown	2600 Cahuenga Blvd	L.A. City SD	unknown	5,200	unknown
5	6/30/2005	unknown	Bonsallo Ave	L.A. City SD	unknown	1,691	unknown
5	7/23/2005	unknown	Laurel Cyn Blvd	L.A. City SD	unknown	7,400	unknown

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2005(cont)						
2	8/4/2005	unknown	Cahuenga Ave	L.A. City SD	unknown	3,647	unknown
5	8/5/2005	unknown	Hyperion One Mile Outfall	L.A. City SD	unknown	1,800	unknown
5	8/8/2005	unknown	Lake	L.A. City SD	unknown	1,310	unknown
5	8/24/2005	unknown	700 N. Broadway	L.A. City SD	unknown	15,708	unknown
5	9/13/2005	unknown	Joint Outfall B	L.A. County SD	unknown	2,900	unknown
5	9/26/2005	unknown	21st St Sewer	L.A. County SD	unknown	3,200	unknown
5	9/27/2005	unknown	Slauson Ave Pumping Plant	L.A. County SD	unknown	4,100	unknown
1	10/5/2005	10/13/2005	Pebbly Beach Rd., Avalon	City of Avalon	Yes	1,300	None - DNRO
5	10/14/2005	unknown	Laurel Cyn Blvd	L.A. City SD	unknown	29,250	unknown
2	10/18/2005	unknown	Ord	L.A. City SD	unknown	1,560	unknown
2	10/27/2005	unknown	Channel	L.A. City SD	unknown	14,725	unknown
5	11/3/2005	unknown	West 7th St	L.A. City SD	unknown	2,260	unknown
2	12/4/2005	unknown	Beverly	L.A. City SD	unknown	2,411	unknown
5	12/28/2005	unknown	Marina Pumping Plant	L.A. County SD	unknown	35,000	unknown
	2006						
5	1/4/2006	unknown	Castaic Trunk	L.A. County SD	unknown	660,000	unknown
5	1/15/2006	1/15/2005	21st & Strand Manhattan Beach		Yes	1,500,000	Beach Closed
5	1/23/2006	unknown	Fulton	L.A. City SD	unknown	1,636	unknown
5	2/6/2006	unknown	Walker	L.A. City SD	unknown	2,966	unknown
5	2/15/2006	unknown	Laurel Cyn Blvd	L.A. City SD	unknown	2,500	unknown
5	2/15/2006	unknown	Ave of the Stars	L.A. City SD	unknown	1,184	unknown
5	2/18/2006	unknown	Cloverdale	L.A. City SD	unknown	3,366	unknown
5	2/19/2006	unknown	Pecan	L.A. City SD	unknown	11,968	unknown
5	2/19/2006	unknown	S. Barrington	L.A. City SD	unknown	5,250	unknown
5	3/8/2006	unknown	Manhattan	L.A. City SD	unknown	12,810	unknown
1	3/19/2006	3/21/2005	11940 Bluff Creek Rd SM	Santa Monica	Yes	25,000	None - 2 day reporting delay

	Date of Incident	Date Reported	Location	Jurisdiction	EH Notified	Spilled Gallons	Action Taken
	2006 (cont)						
2	3/28/2006	unknown	Windsor	L.A. City SD	unknown	3,757	unknown
5	4/27/2006	unknown	South Bay Cities Main	L.A. County SD	unknown	63,500	unknown
5	5/10/2006	unknown	Arizona Ave Trunk	L.A. County SD	unknown	2,500	unknown
5	5/24/2006	5/24/2006	Fries Ave	L.A. City SD	Yes	95,895	None - Wastewater discharg
5	6/24/2006	unknown	Vineyard	L.A. City SD	unknown	1,620	unknown
5	7/8/2006	unknown	Camden	L.A. City SD	unknown	3,774	unknown
5	7/24/2006	7/25/2006	Dominguez & Brant Ave CAR	L.A. County SD	Yes	11,000	None - DNRO
5	7/24/2006	unknown	Joint Outfall B Unit 9B	L.A. County SD	unknown	16,000	unknown

1) information provided by DPH EH
2) information provided by LA City SD
3) information provided by LA County SD
4) information provided by Heal the Bay
5) information provided by two or more sources

* The term sewage discharge includes sewage and other miscellaneous wastewater
**Spill entered Long Beach Harbor - Long Beach authoriies notified
*** No action taken - wastewater was contained/collected and Did Not Reach Ocean
**** This spill was not reported as required but was identified by Environmental Health staff through routine monitoring

DNRO = Did Not Reach Ocean

JMS:12/15/06