

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF DECEMBER 1-2, 2005

Prepared October 27, 2005

ITEM: 18

SUBJECT: STIPULATED ADMINISTRATIVE CIVIL LIABILITY ORDER NO. R3-2005-0130; CITY OF SAN LUIS OBISPO

KEY INFORMATION

Location: 35 Prado Road, City of San Luis Obispo, San Luis Obispo County
Discharge Type: Effluent from Municipal WWTP
Current Flow Rate: Annual average effluent flow is ~4 million gallons per day (MGD)
Design Capacity: Average Dry Weather Flow of 5.2 MGD
Disposal: Discharge to San Luis Obispo Creek
Recycling: Water recycling infrastructure is currently under construction
Existing Order: WDR Order No. R3-2002-0043 (NPDES Permit No. CA0049224)

SUMMARY

The City of San Luis Obispo (Discharger) spilled 40,000 gallons of sewage into San Luis Obispo Creek on August 2, 2005. The proposed Stipulated Order (Attachment 1) assesses administrative civil liability of \$20,000. The Order specifies that the Discharger may direct \$17,000 of the penalty to two supplemental environmental projects: \$9,500 to a local non-point source pollution public service announcement and \$7,500 to a program to educate the public about less-toxic pesticides. Staff notified the Discharger of its intent to recommend \$17,000 be directed to these supplemental environmental projects, and \$3,000 be directed to State Water Resources Control Board for staff costs. The Discharger has agreed not to contest the recommendation and waived its right to a hearing.

DISCUSSION

Discharge Description. The City of San Luis Obispo Water Reclamation Facility (WRF) is located at 35 Prado Road, in southern San Luis Obispo. Treatment facilities include wet-weather flow equalization, screening, grinding, aerated grit removal, primary settling, biofiltration, secondary settling, nitrification by activated sludge, final

settling, dual media filtration, chlorination/dechlorination, and cooling. Solids are thickened, stabilized in anaerobic digesters, dewatered, and applied to non-food cropland. The design capacity of the treatment facility is 5.2 MGD (Average Dry Weather Flow). Average daily effluent flow is approximately 4.0 MGD. Treated wastewater is discharged to San Luis Obispo Creek. This discharge is regulated under Waste Discharge Requirements Order No. R3-2002-0043 (NPDES Permit No. CA0049224). The Permit prohibits "bypass" and "overflow" of untreated and partially treated waste, and specifies that collection, treatment, and discharge of waste shall not create a nuisance or pollution.

Sewage Spill. On August 2, 2005, a failed wastewater pumping station and alarming system caused approximately 40,000 gallons of raw sewage to overflow into San Luis Obispo Creek. The Discharger thereby violated Permit requirements.

Maximum Civil Liability. California Water Code Section 13385(c) authorizes the Central Coast Water Board to administratively impose civil liability in an amount not to exceed the sum of \$10,000 per day for each day a violation of the

Permit occurs and \$10 per gallon for each gallon in excess of 1,000 that is not susceptible to cleanup or is not cleaned up. Therefore, the maximum civil liability that may be imposed by the Central Coast Water Board for this sewage spill is \$400,000.

Consideration of Factors. Central Coast Water Board staff considers the factors required by California Water Code Section 13385(e) as follows:

The Nature, Circumstances, Extent, and Gravity of the Violations

In the early morning hours of August 2, 2005, the Discharger experienced a 40,000-gallon sewage spill into San Luis Obispo Creek. The spill was caused by failure of the Discharger's Laguna Lift Station, located just south of the WRF. The Laguna Lift Station is equipped with redundant pumps and a computerized remote alarming system, but all pumps stopped and the alarming system failed due to a reported computer programming error.

The chlorine contact chamber at the WRF is equipped with a skimming system that drains into a 6" diameter line leading to the Laguna Lift Station. When the Laguna Lift Station filled up, it backed up into this drain line and into the chlorine contact chamber. This mixture of sewage and treated wastewater then flowed into the WRF outfall directly to San Luis Obispo Creek, which flows approximately 7.5 miles before reaching the Pacific Ocean at Avila Beach.

At around 6:00 a.m., a WRF operator discovered sewage in the chlorine contact chamber and quickly eliminated the discharge to San Luis Obispo Creek by diverting the flow into ponds that were formerly a part of the treatment process. The operator increased chlorine dosage in the contact chamber in an attempt to disinfect the sewage. The operator also contacted those who are responsible for the wastewater collection system, who then restarted the pumps in the Laguna Lift Station at around 7:00 a.m. Had the WRF operator not quickly taken these actions, the volume of sewage that reached San Luis Obispo Creek would likely have been much greater than 40,000 gallons.

The Discharger contacted Central Coast Water Board staff to report the spill at around 9:00 a.m. Central Coast Water Board staff requested the Discharger report the spill directly to San Luis Obispo County Environmental Health Department. The Discharger did, and requested that Environmental Health post warning signs in Avila Beach, a popular water contact recreation area. Environmental Health posted warning signs on Avila Beach. Environmental Health also sampled Avila Beach water quality that morning at 9:30 a.m., around the time when the sewage would have impacted the beach. Environmental Health also took follow-up samples later that day at 2:30 p.m. As shown in the following table, the sample results met water contact recreation standards. Environmental Health removed the warning signs from Avila Beach the next morning, on August 3, 2005.

| Sample Date, Time | Parameter, Water Contact Recreation Standard | | |
|-------------------------|--|--------------------------------------|-----------------------------|
| | Total Coliform, 10,000 MPN/100 mL | E.Coli/Fecal Coliform, 400 MPN/100mL | Enterococcus, 104 MPN/100mL |
| Aug. 2, 2005, 9:30 a.m. | 393 | 20 | 42 |
| Aug. 2, 2005, 2:30 p.m. | 63 | 10 | NA |

The root cause of this spill was an apparent computer programming error in the lift station alarm system. Certain lift station conditions such as failed pumps or high water are reported to a central computer in the Discharger's Collections Department shop. The alarm in the computer then triggers an auto-dialer that notifies an operator by pager to respond to the problem. This system has a limited number of data ports, so that new alarms reported to the computer do not trigger the auto-dialer until an operator clears the previous alarm from the computer.

On August 1, 2005, Collections Department operators replaced the No. 3 pump in the Laguna Lift Station. The Nos. 1 and 2 pumps were manually shut down to test pump No. 3, which sent a series of alarms to the computer system. An operator cleared the alarms from the

auto dialer system, but not all the alarms were properly cleared from the computer system. When operators left the Laguna Lift Station on August 1, 2005, pumps No. 1 and No. 2 were restarted and operational. According to the Discharger's written report, operators "checked the computer for any problems before leaving for the night. The computer screen did not show any alarms however in the background alarms had been received." According to the Discharger's report, "this prevented any further alarms from Laguna Lift Station from being sent to the auto-dialer for notification of the stand-by person." The pumps in the Laguna Lift Station stopped for an unknown reason sometime after operators left the lift station, but the lift station alarms did not reach stand-by operators to correct the problem.

Consideration of this factor supports assessment of liability that is less than the maximum.

Degree of Culpability

The Discharger's degree of culpability is low to moderate. The spill was caused by a complex computer programming error in the lift station alarm system. The spill apparently was not caused by Discharger negligence. Consideration of this factor supports assessment of liability that is less than the maximum.

Voluntary Cleanup Efforts Undertaken by the Violator

In response to the spill, WRF operators drained and cleaned out the chlorine contact chamber. They also pumped out the outfall line to prevent any residual sewage from being flushed into San Luis Obispo Creek. Consideration of this factor supports assessment of liability that is less than the maximum.

Susceptibility to Cleanup or Abatement

The sewage that reached San Luis Obispo Creek was not susceptible to cleanup. As discussed above, the sewage mixed with treated wastewater and immediately flowed into the WRF outfall directly to San Luis Obispo Creek. After reaching the creek, the sewage and treated wastewater mixed with

creek flow and flowed downstream. Operators focused on diverting the sewage spill away from the creek, which likely prevented several thousand more gallons from reaching the creek. Consideration of this factor supports assessment of liability that is slightly less than the maximum.

Degree of Toxicity of the Discharge

Staff presumes the subject sewage spill was not toxic. The sewage originated from the service area of the Laguna Lift Station, which contains some industrial facilities, but at a time of night when very few industrial inputs are expected. The sewage was diluted by treated wastewater before reaching San Luis Obispo Creek, and was further diluted by creek flow. No dead fish or other indications of toxicity were observed downstream of the spill. Consideration of this factor supports assessment of liability that is less than the maximum.

Prior History of Violations

According to Central Coast Water Board records, the Discharger is responsible for 50 sewage spills from January 1, 2000 to June 15, 2005. This amounts to 11 spills per year, which is moderate to high for a collection system of this size. The sewage spills range in volume from 20 to 15,000 gallons. The average spill volume is 935 gallons. Eight of the 50 spills were 1,000 gallons or greater. The majority of these spills were caused by root blockage. Other causes include grease blockage, debris blockage, broken sewer lines, excessive inflow and infiltration, and failed lift stations. The largest spill, 15,000 gallons on April 13, 2004, was caused by a contractor that ruptured a sewage force main. Those spills that were caused by a failed lift station include 1,500 gallons on August 14, 2001, 5,000 gallons on August 21, 2001, and 1,800 gallons on March 18, 2002. It is unclear whether these three spills occurred at the Laguna Lift Station.

The total volume of sewage spilled from January 1, 2000 through June 15, 2005 was 46,745 gallons. This volume may initially seem large, but is actually very small

compared to the volume of wastewater safely collected and effectively treated by the Discharger in that same period (over 5 billion gallons).

Consideration of this factor does not support assessment of liability that is less than the maximum.

Economic Benefit or Savings Resulting from the Violation

The Discharger apparently did not derive any economic benefit or savings as a result of this violation. The Discharger had no apparent economic incentive to cause the spill. The Discharger has expended several thousand dollars on an aggressive collection system maintenance program and state-of-the-art lift station alarm system to prevent sewage spills. Consideration of this factor supports assessment of liability of less than maximum.

Discharger's Ability to Pay Civil Liability and Ability to Stay in Business

The Discharger has not provided any information that would indicate an inability to pay the proposed civil liability.

Complaint No. R3-2005-0150. The Executive Officer issued Administrative Civil Liability (ACL) Complaint No. R3-2005-0130 (Attachment 2) on September 19, 2005. The ACL Complaint proposes imposition of administrative civil liability in the amount of \$20,000.

Supplemental Environmental Projects. California Water Code Section 13385 allows a discharger to satisfy some or all of the monetary assessment imposed in an ACL Complaint or Order by completing or funding one or more Supplemental Environmental Projects (SEPs). SEPs are projects that enhance the beneficial uses of the waters of the State, provide a benefit to the public at large, and that, at the time they are included in an ACL action, are not otherwise required of the discharger.

In a letter dated October 12, 2005, the Discharger requested the \$20,000 be directed to two SEPs. The proposed SEPs are:

Sammy the Steelhead Television and Radio Public Service Announcements, \$11,000: Sammy the Steelhead is an animated fish that swims up the storm drainage system and provides public awareness of proper fertilizer and pesticide use; disposal of trash and pet and yard wastes; and automotive maintenance. Airing of the announcement is limited. This proposal will provide funding for six additional months of television airtime in early 2006, and will provide for production and airtime of a similar radio announcement. Sammy the Steelhead Public Service Announcements are managed by the San Luis Obispo County Partnership for Water Quality.

Our Water—Our World, \$9,000: This program has developed over 20 fact sheets (some translated in Spanish) that offer less-toxic management strategies for specific pests. These fact sheets are placed in local stores that sell pesticides to the public. "Shelf-talkers" are placed on selected products on store shelves to make it easier for the public to identify safer alternatives to conventional pesticides. In addition, community outreach/educational events are held in the stores to promote the availability of less toxic methods and products. Store personnel are trained on principles of integrated pest management, successful application strategies, and sales techniques for less toxic products. This project was originally funded by State Water Resources Control Board, through a Proposition 13 grant, but this funding runs out December 15, 2005.

These projects qualify as SEPs in accordance with the State Water Resources Control Board's Water Quality Enforcement Policy, Resolution No. 2002-0040. The SEPs will benefit water quality, provide a benefit to the public at large, and are not otherwise required of the Discharger. The SEPs will not directly benefit Regional Board functions or staff.

Stipulated Order No. R3-2005-0130. Proposed Stipulated Order No. R3-2005-0130 assesses the Discharger administrative civil liability of \$20,000. The Order stipulates that the Discharger must submit written proof of payment of \$9,500 to the Sammy the Steelhead Public Service Announcement SEP described above, and \$7,500 to the Our Water—Our World SEP by January 1,

2006. If proof of payment to SEPs is not submitted by that date, the suspended liability is immediately due and payable to State Board.

The Discharger must submit written certification of completion of the projects and a post-project accounting of expenditures related to the project no later than 30 days after completion of the projects. If the final total cost of the projects is less than the allocated amounts, the Discharger must remit the difference to State Board.

The Discharger must also submit \$3,000 to State Water Resources Control Board for staff costs by January 1, 2006.

On October 25, 2005, staff notified the Discharger of its intent to recommend approval of these requirements. The Discharger agreed not to contest the recommendation and waived its right to a hearing on October 27, 2005 (see Attachment 3).

RECOMMENDATION

Staff recommends adoption of Stipulated Order No. R3-2005-0130.

ATTACHMENT

1. Stipulated Order No. R3-2005-0130
2. Complaint No. R3-2005-0130
3. Waiver of Hearing Form