

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**Staff Report**

**SANITARY SEWER DISCHARGE AT DIAZ ROAD LIFT STATION  
TEMECULA, CALIFORNIA  
EASTERN MUNICIPAL WATER DISTRICT**

**For**

**Proposed Administrative Civil Liability  
Contained in Complaint No. R9-2007-0096  
Eastern Municipal Water District**

**Noncompliance with**

**State Water Resources Control Board  
Order No. 2006-0003-DWQ, *Statewide General Waste Discharge  
Requirements for Sanitary Sewer Systems.***

**And**

**California Regional Water Quality Control Board – San Diego  
Order No. 96-04: *General Waste Discharge Requirements Prohibiting  
Sanitary Sewer Overflows by Sewage Collection Agencies***

**October 17, 2007**

**by  
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Engineering Geologist  
Northern Core Regulatory Unit**

## **1.0 Introduction**

This report provides a summary of factual and analytical evidence supporting administrative assessment of civil liability in the amount of \$53,500 against Eastern Municipal Water District (District) for violations, as alleged in Complaint No. R9-2007-0096, of the following requirements:

- a. Order No. 96-04, *General Waste Discharge Requirements Prohibiting Sanitary Sewer Overflows by Sewage Collection Agencies*.
- b. State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*.

The District 's sanitary sewer system is currently enrolled under, and regulated by the State Board Order No. 2006-0003-DWQ, as supplemented by Regional Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

## **2.0 Background**

The District owns and operates approximately 1,800 miles of sanitary sewer lines (Figure 1), including a 10-inch diameter force main pipe at the District's Diaz Road lift station located approximately 500 feet north of Rancho California Road in Temecula, California.

At approximately 10:15 A.M. on November 14, 2006, a District construction crew ruptured a pressurized 10-inch force main at the Diaz Road lift station with heavy equipment while digging a trench. A reported 1.07 million gallons of untreated sewage was discharged to the Murrieta Creek from the pressurized pipe until repairs were completed at 5:30 P.M.

The discharge of untreated sewage to Murrieta Creek contributed pollutants to the surface waters and to the shallow groundwater aquifer. The shallow groundwater aquifer replenishes the Santa Margarita River at Temecula Gorge, located approximately 3 miles downgradient of the sewage discharge site. The Santa Margarita River is a source of drinking water for the U.S. Marine Corps Base Camp Pendleton approximately 15 miles downstream.

The Water Quality Control Plan for the San Diego Region (9) designates the beneficial uses of Murrieta Creek to include warm freshwater habitat, wildlife habitat, non-contact water recreation, and municipal, agricultural, industrial process, and industrial service supply. The shallow groundwater aquifer beneath this area replenishes the Santa Margarita River, which is a source of drinking water for downstream users.

Murrieta Creek is designated on the 2006 CWA Section 303(d) list as impaired by elevated concentrations of iron, manganese, nitrogen, and phosphorus.

In response to the sewage discharge report the Regional Board inspected the site on November 15, 2006. The purpose of the inspection was to observe the sewage discharge site, the conditions of Murrieta Creek during the construction of the temporary berm, the District's attempt to contain and recover sewage from the creek, and to assess impacts to the riparian corridor along the stream.

Subsequently on December 5, 2006, the Regional Board issued an Investigative Order and Notice of Violation as part of the evaluation into potential impacts to water quality that may have occurred as a result of the sewage discharge. The Order directed the District to submit a technical report regarding the sewage discharge incident.

The District submitted the following documents to the Regional Board related to this matter.

- a. Preliminary Spill report, dated November 20, 2006, discussing the November 14<sup>th</sup> incident.
- b. Supplemental information, dated November 30, 2006.
- c. A Water Quality monitoring Report, dated December 7, 2006, providing results of analyses for biochemical oxygen demand and fecal coliform in water samples collected from Murrieta Creek on November 11 and 30, 2006.
- d. Technical Report, dated December 27, 2006, provided in response to Regional Board's Investigative Order.

### **3.0 Allegations**

The discharge of 1.07 million gallons of untreated sewage from a ruptured a 10-inch force main resulted in the District violating the following requirements:

Prohibitions C.1 and C.2 of Order No. 2006-003-DWQ state the following:

- C.1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.*
- C.2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.*

Prohibition A.1 of Order No. 96-04 states:

- A.1 *The discharge of sewage from a sanitary sewer system at any point upstream of a sewage treatment plant is prohibited.*

#### **4.0 Determination of Administrative Civil Liability**

An administrative civil liability (ACL) is imposed pursuant to the procedures described in California Water Code (CWC) Section 13323. The procedures specify that the Regional Board Executive Officer issue a complaint to any person on whom the civil liability may be imposed.

Pursuant to California Water Code Section 13350(e), the Regional Board could assess civil liability pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis, not to exceed five thousand dollars (\$5,000) for each day the violation occurs, or on a per gallon basis, not to exceed ten dollars (\$10) for each gallon of waste discharged, but not both. Therefore, under provisions of Water Code section 13350(e), the statutory maximum ACL amount for the discharge of 1.07 million gallons of raw sewage, on November 14, 2006, is \$10,700,000.

The complaint alleges the act or failure to act that constitutes a violation of law, the provision of law authorizing civil liability to be imposed and the proposed civil liability. Based upon consideration of additional factors, however, a further reduction of the ACL amount from the statutory limit is warranted as explained in the following sections of this Staff Report.

##### **4.1. Nature, Extent, & Gravity of the Sewage Discharge**

At approximately 10:15 A.M. on November 14, 2006, a District construction crew ruptured a pressurized 10-inch force main at the Diaz Road lift station with a backhoe while digging a trench. The District reported that 1.07 million gallons of untreated sewage was discharged from the pressurized pipe into the Murrieta Creek (Figure 2) until repairs were completed at 5:30 P.M.

The District reported that surface water was not flowing within the Murrieta Creek at the time of sewage discharge. However, the alluvial groundwater aquifer, located beneath Murrieta Creek, replenishes the Santa Margarita River. Both Murrieta Creek and the underlying groundwater aquifer flow into the Santa Margarita River, at Temecula Gorge, located approximately 3 miles down gradient of the sewage discharge site. The Santa Margarita River is a source of drinking water for the U.S. Marine Corps Base Camp Pendleton.

Soon after the discharge began the District requested permission from Riverside County Flood Control to attempt to contain sewage by creating a temporary berm located within Murrieta Creek, approximately 1,000 feet downstream of the sewage discharge site. The District posted signs on both sides of Murrieta

Creek, approximately 100 to 150 feet apart, and on access trails to the creek. By early evening, vactor trucks began to pump untreated sewage contained behind the temporary berm into the trucks.

The District continued to pump sewage collected behind the containment area until the afternoon of November 15, 2006. The District reported that a total of 136,000 gallons of sewage was recovered during this period. At the completion of cleanup activities, the District removed the temporary containment berm and re-graded the streambed. Other areas of Murrieta Creek were reported to be inaccessible by equipment and the District was concerned that bringing equipment in to these areas to remove additional sewage would also result in further disturbance of the creek. The District was, however, able to remove residual solid wastes from the area affected by the sewage discharge.

The District reported that the sewage discharge was mostly confined to an area that was generally inaccessible to the public. In areas that were accessible, the District attempted to pump waste water into Vactor trucks. The District posted the area with warning signs for 5 days and no immediate health concerns were identified during the containment of the untreated sewage discharge.

The District's visual-based habitat assessment conducted on November 18, 2006 did not identify impacts from the sewage discharge upon the Murrieta Creek ecosystem. A report prepared by the District on November 18, 2006, notes that physical impacts to the area occurred during the process of creating and removing the temporary berm. The work area where grading occurred to construct a temporary berm was reported to have been sparsely vegetated and consequently, minimal vegetation was impacted on the east side of the creek and within the creek bed.

The District did not provide a complete evaluation of potentially impacted receiving waters. It is assumed that the discharge of untreated sewage likely caused localized short-term impacts to ground and surface water quality, with the pollutants assimilated by the receiving water at some distance from the point of discharge. The discharge was not sampled for emerging pollutants of concern [household and industrial (organic) wastewater constituents, pharmaceutical compounds, antibiotic compounds, or hormones].

Because, it is not likely the discharge caused significant long-term impacts to beneficial uses of water resources or public health, a reduction of the liability from the maximum amount is warranted.

#### **4.2. Degree of Culpability**

The discharge of sewage was caused by the District when it ruptured a 10-inch force main with a backhoe on November 14, 2006. The District was using the backhoe to excavate a trench to install a meter on an 18-inch diameter force main located adjacent to the 10-inch force main sewer pipe.

The District reported that operation of the lift station was not halted because sewage would have backed up in the collection system, and likely resulted in a discharge of raw sewage further upstream and perhaps caused damage to equipment in the station. The District further reported that flows in the ruptured 10-inch force main pipe could not have been diverted into the 18-inch diameter force main because the system lacks isolation valves. The District, therefore, decided to continue discharging sewage into Murrieta Creek at a rate of approximately 3,000 gallons per minute.

The District is fully culpable for the sewage discharge, because they did not take adequate precautions to ensure that the location of the force main pipe was clearly identified, avoided and protected during the soil excavation work. Failure to take adequate precautions resulted in the District construction crew causing the rupture of the 10-inch force main pipe.

#### **4.3. Prior History of Violations**

A review of the sewage discharge records indicate that pipeline ruptures caused by poor construction practices has not been a prevalent problem with the District.

During fiscal year (FY) 2006-07, the District's sewer conveyance system had five discharges of sewage, in addition to the November 14<sup>th</sup> incident. The sewage discharges were reportedly caused by vandalism, a pipeline structural failure, debris, and on two occasions leaking valves. The volumes of these other sewage discharges were all less than 1,000 gallons.

During FY 2005-06, the District's sewage conveyance system had three discharges of sewage or 0.7 discharges per one hundred miles of sewerage system, which compares favorably with the regional average of 3 discharges per one hundred miles. The volume of the three sewage discharges totaled less than 300 gallons.

During FY 2004-05, the District's sewage conveyance system had one sewage discharge, which was 1,250 gallons and reportedly caused by an accumulation of grease in the sewer system.

#### **4.4. Economic Savings**

At this time, the Regional Board does not have evidence to determine the economic benefit or savings in connection with the sewage discharge incident described in this report.

#### **4.5. Other Matters as Justice May Require**

The Regional Board costs for investigating this sewage discharge incident and preparing the necessary enforcement orders and directives have been \$12,500 as of the date of this complaint. The recommended liability is sufficient to recover staff costs.

#### **4.6. Ability to Pay and Ability to Continue in Business**

At this time, the Regional Board does not have information demonstrating that the District is unable to pay the proposed administrative civil liability or how payment of the proposed administrative civil liability would affect their ability to provide required services. Because it is anticipated that payment of the maximum administrative civil liability would pose no significant financial hardship on the District, this factor was not considered in reducing the ACL amount from the statutory maximum limit.

### **5. Proposed Administrative Civil Liability**

The proposed civil liability in this matter is \$53,500. The liability is calculated at \$0.05 per gallon of raw sewage discharged in violations of State Board Order No. 2006-003-DWQ and Regional Board Order No. 96-04. The proposed civil liability is substantially less than the statutory maximum limit because the discharge appears to have had minor, temporary impacts to beneficial uses, and that the District's sewage conveyance system did not have any major discharges in the last five years. The proposed civil liability is appropriate for this sewage discharge incident because:

- a. The discharge of a large volume of raw sewage has an increased risk of short and/or long-term water quality impacts than a small volume discharge.
- b. The District reportedly recovered 136,000 gallons of raw sewage during the early phases of cleanup.
- c. The District caused the discharge because of the failure to identify the location of the force main pipeline prior to and during a construction activity. The District should have known where its lines were and had contingencies in place for an "accident" to lessen the impacts.
- d. The discharge was to an impaired water body for constituents found in raw sewage (nitrogen and phosphorus). The discharge of raw sewage to an impaired waterbody, containing constituents causing the impairment, will

enhance the impairment and increase the risk of eutrophication.

- e. The shallow groundwater aquifer replenishes the Santa Margarita River, which is a source of drinking water for downstream users, including the U.S. Marine Corps Base at Camp Pendleton. The discharge of a large amount of raw sewage to land above an alluvial aquifer (waters of the State) and the Santa Margarita River (waters of the United States) that serves as a source of public drinking water can threaten the quality of groundwater resources.
- f. The proposed civil liability is sufficient to recover Regional Board costs and provides fair compensation for impacts to waters of the State and the United States.



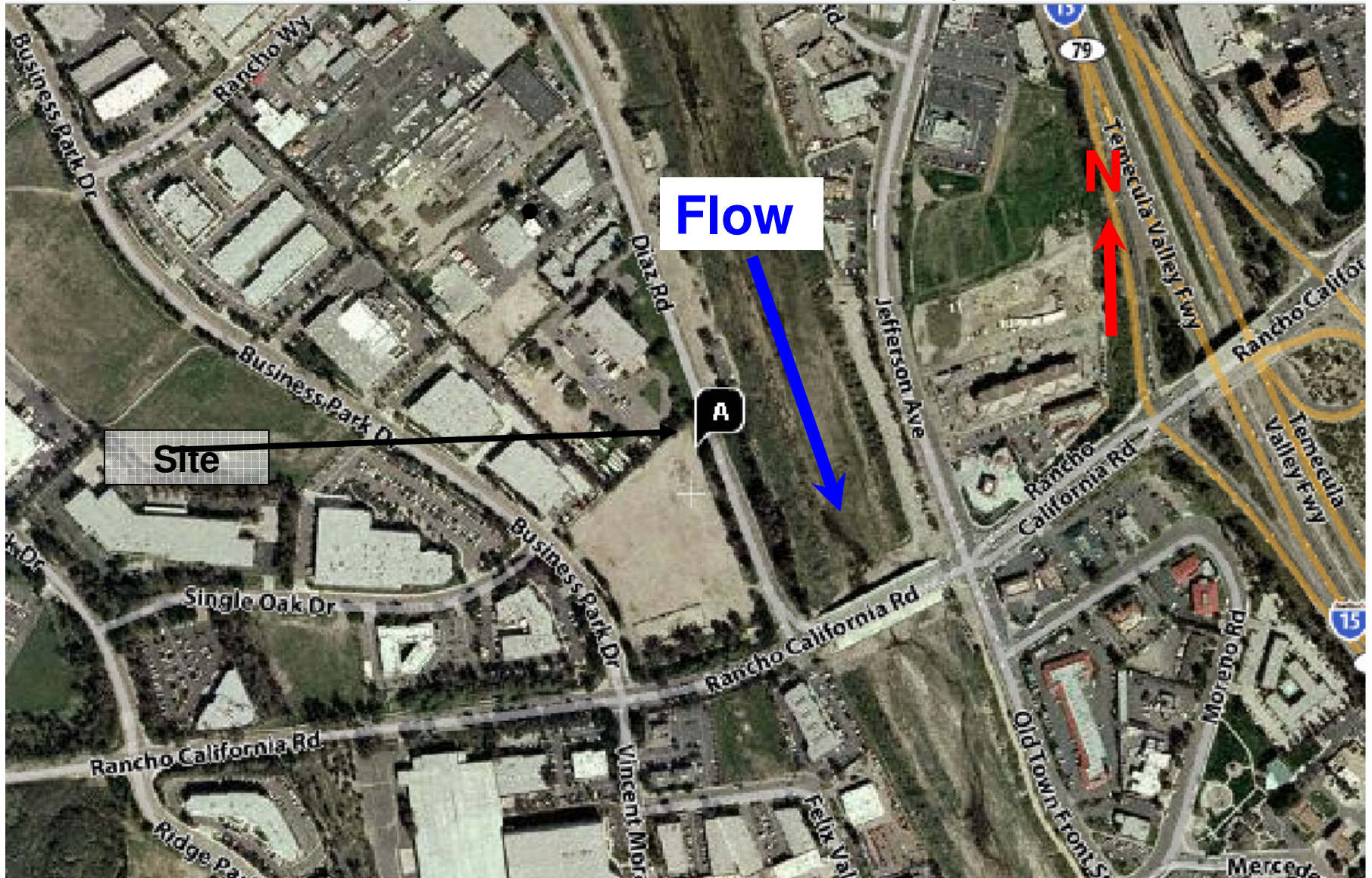
# FIGURE 1

## Eastern Municipal Water District Sanitary Sewer Overflow



Site Address  
28079 Diaz Road, Temecula  
WDID No. 9 00000763

FIGURE 2: Sanitary Sewer Overflow, Eastern Municipal Water District



Site Address: 28079 Diaz Road, Temecula, WDID No. 9 00000763