

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

ADMINISTRATIVE CIVIL LIABILITY COMPLAINT FOR

**CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
DEUEL VOCATIONAL INSTITUTION
WASTEWATER TREATMENT FACILITY
SAN JOAQUIN COUNTY**

**PROSECUTION TEAM'S TECHNICAL ANALYSIS
SUPPORTING THE PROPOSED ADMINISTRATIVE CIVIL LIABILITY COMPLAINT**

I. Introduction

The Prosecution Team has issued Administrative Civil Liability Complaint R5-2016-0536 (Complaint) to the California Department of Corrections and Rehabilitation (Discharger or DVI) for violations of Cleanup and Abatement Order (CAO) R5-2015-0704 and Waste Discharge Requirements (WDRs) R5-2014-0014-01, which occurred at the Deuel Vocational Institution's Wastewater Treatment Facility (Facility). The Complaint alleges the Discharger has failed to submit technical and progress reports as required by the CAO, violated effluent limitations in the WDRs, and for failure to properly operate and maintain the Facility as required by the WDRs.

This Complaint only addresses violations of WDRs R5-2014-0014-01 and CAO R5-2015-0704, which are related to the wastewater treatment facility's violations only. The Complaint alleges that a total of seven reports are materially deficient and do not contain the information required by the CAO. The Complaint also alleges that the Discharger exceeded seven effluent limits in violation of the WDRs: five for total coliform organisms and two for nitrate plus nitrite. Additionally, the Discharger also exceeded the WDRs' chronic toxicity limit for eight of the eleven toxicity tests that it conducted since issuance of the CAO.

The failure to submit technical reports as required by the CAO is a violation of Water Code section 13268, which results in a maximum penalty of \$1,979,000. The discharge of partially treated or toxic wastewater is a violation of Water Code section 13385, which results in a maximum penalty of \$28,760,490. The failure to properly operate and maintain facilities and systems is a violation of Water Code section 13385, which results in a maximum penalty of \$300,000. Therefore, the total maximum liability for this Complaint is \$31,039,490. The minimum liability is equal to the economic benefit of noncompliance plus 10%, which is estimated to be \$2,293,251. The Prosecution Team is recommending a penalty of **\$4,037,620**.

II. Regulatory Background

a. Waste Discharge Requirements R5-2014-0014-01

The California Department of Corrections and Rehabilitation is the owner and operator of a wastewater collection, treatment, and disposal system, which provides sewerage service to the Deuel Vocational Institution, a California prison facility located east of Tracy, CA. The Discharger provides sewerage service for the Deuel Vocational Institution and serves a population of approximately 3,132, which includes inmates and staff, which is serviced by a sanitary wastewater treatment. The permitted average dry weather flow capacity of the Facility is 0.62 million gallons per day (MGD). The Facility discharges to Deuel Drain, a water of the United States, tributary to the San Joaquin River via Paradise Cut within the Sacramento – San Joaquin Delta.

In addition to the Facility's surface water discharge WDRs R5-2014-0014-01 (NPDES WDRs), the Discharger is also regulated by WDRs Order R5-2007-0005 for the reverse osmosis water treatment facility's Class II surface impoundments (Title 27 WDRs) and the Reissued WDRs General Order for Existing Milk Cow Dairies R5-2013-0122 (Dairy WDRs) for the dairy operation.

b. Cleanup and Abatement Order R5-2015-0704

On 30 March 2015, the Central Valley Water Board's Assistant Executive Officer issued three Cleanup and Abatement Orders (CAOs) for failure to comply with the NPDES, Title 27,

and Dairy WDRs. The CAOs incorporate timelines for the completion of repairs and necessary operational changes, which are intended to bring the Discharger into compliance with the WDRs.

CAO R5-2015-0704 was issued to the Discharger for violations and threatened violations of the NPDES WDRs, including:

- Chronic toxicity in the effluent;
- Exceedance of the nitrate effluent limit;
- Damage to the membrane bioreactor (MBR);
- Use of expired chemical reagents;
- Failure to develop standard operating procedures;
- Inadequate staffing;
- Poor housekeeping;
- Potential for increased influent flows; and
- Lack of treatment capacity.

Prior to issuing the CAO, Regional Board staff reached out to the Discharger on many occasions to work with them and develop a plan to come back into compliance with their WDRs. In addition, when the CAO was issued, the Discharger did not provide any comments. However, the chief plant operator relayed that these violations are likely occurring at the Facility due to 1) inadequate operation and maintenance of the Reverse Osmosis Groundwater Treatment Plant (RO Plant), which had been installed to treat groundwater from onsite supply wells to provide potable water to inmates and to reduce electrical conductivity in the influent to the Facility, and 2) inadequate operation and maintenance of the MBR at the Facility.

III. Deficient Technical Reporting, Effluent Limitation Violations, and Substandard Operation and Maintenance of the Facility

The Complaint has been issued because the Discharger has (a) failed to submit technical reports required by the CAO, (b) continued to discharge in violation of the effluent limits in the WDRs, and (c) failed to properly operate and maintain the wastewater treatment plant in violation of the WDRs. These three violations will be addressed separately.

A. Deficient Technical Reporting

The CAO required the Discharger to submit a number of technical reports, which if implemented, will bring the Discharger back into compliance with the WDRs and will allow continued, reliable operation of the Facility. However, from the very first technical report that was due, the Discharger has not been submitting reports on time and they have not contained the information requested in the CAO. Although quarterly reports were submitted, they did not include accurate information.

In addition, the Discharger failed to submit a report that required a plan and schedule to prevent chronic toxicity when the RO plant was offline. No effort was made by the Discharger to provide an updated Operation and Maintenance Manual to maximize the efficiency of the membrane bioreactor modules until they could be replaced. In addition, the Discharger was required to submit a Salinity Evaluation and Minimization Plan by 1 December 2014. The Discharger neglected to submit the report. After

several phone conversations with the Discharger; finally, on 13 January 2015 the Discharger submitted the report 42 days late.

B. Effluent Limitation Violations

Effluent Limitations and Discharge Specifications IV.A. of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall maintain compliance with the following effluent limitations..." including the limitation for nitrate plus nitrite (as N) of 10 mg/L as a monthly average and a 7-day median for total coliform organisms of 2.2 MPN/100 ml. The Discharger has not complied with these requirements, as evidenced by the ongoing effluent limit violations and chronic toxicity violations.

C. Operation and Maintenance of the Facility

Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger was aware of the risk of not properly maintaining the membrane bioreactor modules and chose not to employ adequate measures and processes to prevent the accumulation of trash and debris which likely severely impaired the functionality and effectiveness of the membranes. The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain.

IV. Considerations When Calculating the Proposed Penalty

The proposed liability was calculated using the methodology in the State Water Resources Control Board's Enforcement Policy (effective May 20, 2010). Historically, most enforcement actions of effluent limit violations by the regional boards have not sought additional, discretionary penalties, above the mandatory minimum penalty amounts. The Facility has a history of noncompliance with effluent limitations. Nearly every year from 2008 thru 2013, DVI has incurred and paid mandatory minimum penalties totaling \$309,000. Most recently in 2014 and 2015, DVI exceeded permitted limits for total coliform and nitrite plus nitrate, for a total of 39 violations. The Regional Board's Prosecution Team proposed a mandatory minimum penalty of \$111,000 which the Discharger paid. Given the nature and circumstances of the effluent limit violations and the history of noncompliance, the Prosecution Team chose to use its enforcement discretion to calculate a penalty that will serve as an adequate deterrent. While a mandatory minimum penalty of \$111,000 was imposed in 2016 for exceedances of total coliform and nitrite plus nitrate, the fine was not sufficient enough for DVI to anticipate, identify, and correct the violations. In this administrative civil liability action, exceedances of total coliform and nitrite plus nitrate continue to persist. A greater penalty is therefore necessary and appropriate. More importantly, the discharges from DVI's Facility pose a significant water quality concern related to salinity in the Sacramento-San Joaquin Delta. The Facility discharges wastewater to the Deuel Drain, a tributary to the San Joaquin River within the Sacramento-San Joaquin Delta. The Sacramento-San Joaquin Delta is a 303(d) listed water body impaired for electrical conductivity. DVI's current WDRs Order

R5-2014-0014-01 do not contain an effluent limitation for electrical conductivity¹. Meanwhile, DVI has struggled to reliably and effectively operate the RO Plant to control effluent salinity concentrations. High salinity in the treatment train has caused the accumulation of dissolved salts that has prevented the effective UV treatment of wastewater. As a result, effluent total coliform and nitrite plus nitrate levels have exceeded permitted limits, and wastewater from DVI's facility continues to degrade water quality and potentially affect the beneficial uses of the Sacramento-San Joaquin Delta. The proposed liability will serve as the necessary deterrent to encourage compliance and protect water quality.

V. Conclusion

For the reasons stated above in the Prosecution Team's Technical Analysis, the Central Valley Water Board Prosecution Team urges the Regional Board to adopt the proposed liability of \$4,037,620. Board staff and the Discharger are planning to meet in September 2016 to continue settlement negotiations. If the parties can reach a settlement before the October 2016 Board Meeting, the Prosecution Team will request the item be removed from the agenda.

For the Prosecution Team:



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NPDES Compliance and Enforcement Unit

¹ The prior waste discharge requirements, Order R5-2008-0164, established effluent limitations based on the Bay-Delta Plan objectives for electrical conductivity for the South Delta. Since these objectives are not currently applicable due to previous litigation requiring the State Water Board to consider new salinity (and flow) objectives in the South Delta, the current waste discharge requirements, Order R5-2014-0014-01, contains no effluent limitations for salinity. The State Water Board is currently considering new salinity and flow objectives in the South Delta.