

STAFF REPORT

**TEJON-CASTAC WATER DISTRICT
TEJON INDUSTRIAL COMPLEX WASTEWATER TREATMENT FACILITY
KERN COUNTY**

This Staff Report discusses issues concerning the Tentative Waste Discharge Requirements (TWDRs) and draft Cease and Desist Order (CDO) for the Tejon-Castac Water District's Tejon Industrial Complex wastewater treatment facility (WWTF). Staff received comments from the Discharger regarding the orders. The Discharger requests the Regional Water Board adopt the TWDRs, but not the draft CDO.

BACKGROUND

The Tejon-Castac Water District (hereafter District) owns and operates a wastewater treatment facility (WWTF) that provides sewerage services at the Tejon Industrial Complex. The Complex consists of a hotel, gas stations, restaurants, shower and restrooms areas, convenience stores, and industrial warehouses. The Tejon Ranch Corp owns the land on which the WWTF and Industrial Complex reside; therefore, Tejon Ranch Corp and the District are jointly referred to as Discharger in the TWDRs and draft CDO. However, the District has primary responsibility for complying with the TWDRs and draft CDO.

When the Complex was in the planning phase, the Discharger proposed to recycle the effluent on its landscaping to reduce water usage. Therefore, WDRs Order No. 99-076 authorizes the discharge of up to 0.05 mgd of disinfected tertiary wastewater to two storage ponds and a landscaped use area. The Discharger submitted a Report of Waste Discharge (RWD) to increase overall capacity to 0.1 mgd. Although the Discharger completed construction of an additional WWTF to increase its overall capacity to 0.1 mgd, it has been unable to meet the limits necessary to recycle effluent on landscaped areas with unrestricted access.

The existing WWTF consists of a dissolved air floatation unit, aerated flow equalization basin, two treatment plants, followed by sand filtration and ultraviolet light disinfection (as needed) prior to discharge to ponds and landscaped areas.

EXISTING WDRs

Waste Discharge Requirements Order No. 99-076 was adopted to allow the Discharger to use effluent for unrestricted use on landscaped areas surrounding the Complex. Therefore, the Order included the following effluent limits based on

the Title 22 standards for unrestricted use: biochemical oxygen demand (BOD₅) and total suspended solids (TSS) of 10 mg/L, median total coliform organism (TCO) of 2.2 MPN/100 mL, and daily average turbidity of 2 nephelometric turbidity unit (NTU).

Since the adoption of WDRs Order No. 99-076, the Discharger has been in continuous violation of at least one, if not all, of the tertiary limits. The Discharger has never recycled effluent as intended, making the violations somewhat moot. However, the WDRs do not contain alternative limits for when effluent is not used for recycling. As a result, the Discharger has accrued more than 800 violations, which are documented in the California Integrated Water Quality System. Attachment A of this staff report includes a graph comparing effluent quality for BOD and TSS from January 2005 through November 2007 with the limits established in WDRs Order No. 99-076, and those proposed in the TWDRs.

In 2004, the Discharger completed some improvements to the WWTF, including the installation of an additional WWTF parallel to the existing WWTF to increase overall treatment capacity. However, violations continued. The Discharger has been issued two Notices of Violation for violations of the tertiary effluent limits.

Historically, violations have been caused, in part, by the unusually high influent BOD, which generally averages about 530 mg/L, but can be as high as 1,000 mg/L. The two existing WWTFs were designed to treat a BOD of typical domestic strength (250 – 300 mg/L). To resolve the high influent BOD issue, in September 2007, the Discharger installed a dissolve air flotation unit, which has shown some improvement in effluent quality.

TENTATIVE WDRs EFFLUENT LIMITS

The TWDRs allow the Discharger to discharge two different effluent qualities based on disposal method. The TWDRs propose that, when discharge is to ponds only, the effluent BOD and TSS must meet the standards of 40 mg/L monthly average, and 80 mg/L daily maximum. These standards are recommended by the Basin Plan for WWTFs that discharge to land except for smaller facilities that are in remote areas where threat of odors and nuisance are low. As shown in Attachment A, the Discharger has never consistently complied with the proposed effluent limitations. Staff drafted the proposed CDO because, based on historical effluent quality through May 2007, the WWTF was not likely to meet the TWDRs minimum BOD and TSS limits.

In response to the issuance of the draft CDO, the Discharger submitted data (as shown in Table 1) from June through November of 2007, which the Discharger indicates shows general compliance with the TWDRs BOD and TSS limits.

TABLE 1. EFFLUENT QUALITY¹

<u>Date</u>	<u>Units</u>	BOD	TSS
		<u>Average (Range)</u>	<u>Average (Range)</u>
Jun-07	mg/L	19 (11 – 38)	36 (24 – 63)
Jul-07	mg/L	16 (1.8 – 39)	39 (22 – 72)
Aug-07	mg/L	34 (7 – 66)	59 (23 – 140)
Sep-07	mg/L	19 (<1 – 60)	32 (14 – 66)
Oct-07	mg/L	16 (<1 – 27)	17 (10 – 25)
Nov-07	mg/L	15 (<1 – 30)	84 (38 – 140)

¹ Quality is of the discharge to Pond 1.

The Discharger would have been in compliance with the proposed BOD monthly average and daily maximum limits, but would have exceeded the proposed TSS daily maximum and monthly average limits in August and November. The exceedances were reportedly the result of the Discharger “ironing out problems” with the different unit processes.

The Discharger recently submitted additional data for December 2007, which shows varying effluent quality depending on where the samples were collected. Samples collected prior to the chlorine contact chamber had a BOD ranging from 15.5 to 37 mg/L, and TSS ranging from 16 to 56 mg/L, which would likely comply with the proposed TWDRs’ BOD and TSS limits. The Discharger currently monitors effluent quality (as shown in Table 1) prior to discharge to Pond 1. Samples collected at this point for December 2007 would exceed the proposed TWDRs’ BOD limit.

The Discharger is in the process of completing the design for a new WWTF that should meet the proposed TWDRs requirements. The Discharger anticipates starting construction in the second quarter of 2008 and completing construction within one year. The Discharger has provided documentation to show its progress towards construction of the new WWTF.

ISSUES

The Discharger planned to dispose of effluent by unrestricted landscape irrigation. WDRs Order No. 99-076 prescribed effluent limits to protect the health of individuals who might contact the effluent. The Discharger could not comply with the tertiary limits for unrestricted landscape irrigation; however, the irrigation never occurred. The proposed TWDRs would relax the tertiary limits for the continued disposal of effluent to ponds, but continues to require the Discharger recycle effluent to the maximum extent feasible.

Prior to the last six months, the discharge would not have complied with the relaxed effluent limitations. Recently, the Discharger installed a dissolved air flotation unit and the effluent is significantly better. Further, the Discharger is planning a new WWTF to address its long-term needs. The Discharger requests that the draft CDO not be issued because of its recent improvements and long term plans.

Although effluent quality has improved somewhat over the last six months, violations of tertiary limits, and the proposed TWDRs new relaxed BOD and TSS limitations, would have still occurred. The proposed draft CDO requires the Discharger to perform a series of tasks according to a time schedule. These include evaluating if additional interim improvements are necessary to improve effluent quality at the existing WWTF, as well as completing long-term improvements, including the construction of a new WWTF, as appropriate.

ATTACHMENT A

