

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
8:30 a.m., June 13, 2013
Regional Water Quality Control Board
5550 Skylane Blvd, Ste A
Santa Rosa, CA 95403

- ITEM: 3
- SUBJECT: Public Hearing on Order No. R1-2013-0029, to consider adoption of proposed Waste Discharge Requirements for the City of Tulelake Wastewater Treatment Facility, WDID No. 1A84002OSIS, NPDES Permit No. CA0023272 Siskiyou County (Mona Dougherty)
- BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2013-0029. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.
- BACKGROUND: The City of Tulelake (hereinafter Permittee) owns and operates a wastewater collection, treatment and disposal facility (hereinafter WWTF) in the community of Tulelake, Siskiyou County, California. The WWTF serves a population of approximately 1,000 including residential and commercial customers in the City of Tulelake. The WWTF is located directly adjacent to, and discharges treated effluent to, the Tulelake Irrigation District (TID) drain No. 44-B-1, which is tributary to the Tulelake Sump, Tule Lake, and the Lower Lost River.
- The WWTF is designed to provide secondary treatment for up to an average daily dry-weather flow of 0.16 million gallons per day (mgd). The current treatment system consists of a comminutor in the headworks wet well with a bypass bar screen followed by two aerated waste water stabilization ponds, two large sand filters in parallel, and a chlorine contact disinfection chamber prior to sulfur dioxide dechlorination and discharge to the TID drain No. 44-B-1 at Discharge Point 001. Secondary treated, disinfected, dechlorinated wastewater is discharged year-round to surface waters.
- ISSUES: *The following narrative duplicates the narrative describing issues under the Cease and Desist Order for this Permittee in today's agenda (Item No. 4).*
- Significant issues identified and addressed in the proposed permit and Cease and Desist Order include the following:

Dilapidated Treatment System

The comminutor was refurbished in 2006, although the blades need replacement again and the electronic control system is not functional and limited to on/off operation. The aerated stabilization ponds have not been dredged since the WWTF was constructed resulting in increased oxygen demand and nutrient supply within the stabilization ponds, which inhibits effective waste water nitrification. The sand filters have been only partially functional and intermittently used since the early 1980s. Facility operators assert that the filters are clogged with solids carryover from the stabilization ponds and are in need of overhaul. Facility inspections have revealed that some aerators need maintenance, the effluent flow meter needs calibration and the automated chlorination and dechlorination system is nonoperational. Facility operators have observed leakage from the east side of Pond No. 2 when the water depth exceeds approximately 11.5 feet. The stabilization ponds were originally designed with a matrix of airlines and diffusers, which was replaced by a mat aerator system that was again replaced by the current network of static tube diffusers. The number of installed diffusers is not known, but the Permittee's Wastewater Facilities Plan (2008) indicates that "over the years the operational number has been decreasing such that currently there are eight working in Reactor No. 1 and three each in Reactors No. 2 and 3."

Long History of Enforcement

As a result of insufficient operation and maintenance of the WWTF, the Permittee has a long history of effluent limitation violations. During the previous permit term, the Permittee consistently violated effluent limitations for BOD, TSS, total coliform, chlorine residual, pH, and acute toxicity. The Regional Water Board has issued multiple enforcement orders that have been active during the term of the previous permit, including Administrative Civil Liability (ACL) Order No. R1-2007-0045 and Cease and Desist Order (CDO) No. R1-2004-0074. These orders were issued to address numerous violations of effluent limitations contained in Order Nos. 99-62 and R1-2004-0075.

In ACL Order No. R1-2007-0045, the Regional Water Board assessed a total penalty of \$495,000 for one hundred sixty-nine permit violations. Numerous additional violations have occurred since the issuance of the ACL Order, which have not yet been assessed penalties. Regional Water Board staff is currently reviewing the self-monitoring reports and are in the process of developing an ACL Complaint regarding unassessed violations.

The Regional Water Board issued Cease and Desist Order No. R1-2004-0074 as a result of the latter violations and required the Permittee to initiate a facilities planning process to evaluate viable

alternatives for upgrading the WWTF; to comply with CEQA; and to design, finance, and construct the preferred alternative WWTF upgrades. The previous Cease and Desist Order includes a schedule with various deadlines for each step in the planning and development process. The Permittee did not comply with the majority of the deadlines in the CDO due to financial constraints. For example, the Permittee was required to submit a final report demonstrating compliance with the CEQA process for the WWTF upgrade project by July 1, 2005, but the Permittee did not submit a notice of determination until April 7, 2009. The CDO also required project design and construction, both of which the Permittee has yet to complete.

Development of a Compliance Project

Since the Permittee is classified as a small disadvantaged community, it is eligible to implement compliance projects to offset assessed penalties in accordance with the State Water Resources Control Board Enforcement Policy. As part of the facilities planning process required by the CDO described in NPDES permit section II.D.2, two possible capital improvement projects (CIPs) were identified by the Permittee, including a wetland-type land disposal system and a spray irrigation reclamation system. The Permittee identified in its Facilities Plan that the wetland-type land disposal system was the preferred alternative; however, the Permittee is still developing an antidegradation analysis that may alter the preferred alternative. Nonetheless, the ACL Order described in section II.D.2, conditionally offset \$488,000 if the Permittee meets the task schedule requirements contained in the ACL Order and if the Executive Officer determines that the Permittee has completed the compliance project satisfactorily.

Planned Changes

The Permittee has plans to rehabilitate and upgrade the existing Facility by July 2015. Rehabilitation efforts will include collection system improvements, replacing the headworks, installing and calibrating a new effluent flow meter, dredging the aeration basins, fixing any nonfunctional aerators, and fixing the automated disinfection system. Upgrades to the WWTF will include enhanced treatment units and the creation of a land disposal system at a new location south of the WWTF. The details of these facility upgrades are yet to be determined, pending completion of the antidegradation analysis for the proposed wastewater disposal location. The Permittee has a \$3,794,350 conditional grant funding agreement with the State Revolving Fund for planning, design and construction of the WWTF rehabilitation and upgrades.

Regional Water Board staff has developed a new Cease and Desist Order (CDO) for concurrent adoption with this permit renewal. The CDO (Order No. R1-2013-0030) includes a compliance schedule requiring the Permittee to complete the capital improvement project (CIP) and achieve full compliance with all requirements of Order No. R1-2013-0029 by June 30, 2015.

The Regional Water Board intends to place this WWTF under individual waste discharge requirements prior to implementation of the CIP. However, the proposed permit (Order No. R1-2013-0029) would allow the Permittee to operate the upgraded WWTF under the terms of Order No. R1-2013-0029 in the event that adoption of new waste discharge requirements for the land discharge facility is delayed.

Anticipated Violation of Order No. R1-2013-0029

The Permittee cannot achieve immediate compliance with the new effluent limitations for arsenic, copper, ammonia, dissolved inorganic nitrogen, and carbonaceous biochemical oxygen demand in the renewed permit until it completes a CIP. As a result, CDO No. R1-2013-0030 includes interim effluent limitations that apply during the term of the compliance schedule and protection from mandatory minimum penalties if the Permittee maintains compliance with the terms of the CDO.

Comment Letters

The Regional Water Board only received comments from the Permittee. The comment letter received from the Permittee and staff responses to the comments are attached.

Permittee's Comments. The Permittee submitted a letter dated April 23, 2013, requesting a reduction in the monitoring frequency from monthly to quarterly for arsenic, copper, cyanide, dichlorobromomethane, and bis (2-ethylhexyl) phthalate to help reduce the cost of permit implementation.

A reduction in the monitoring frequency was not granted in response to the Permittee's request because monthly effluent limitations require monthly monitoring for effective compliance assessment. Staff did reduce the monitoring frequency of parameters that do not require monthly compliance assessment. Responses to comments and additional minor changes made to the permit by Regional Water Board staff are described in greater detail in the Response to Comments document.

**SIGNIFICANT
CHANGES:**

The proposed Order No. R1-2013-0029 contains several significant changes from the existing permit, Order No. R1-2004-0075, as follows:

1. Updated permit format using the permit template established by the State Water Resources Control Board.
2. New final effluent limitations for arsenic, copper, ammonia have been established based on an evaluation of monitoring data submitted with the report of waste discharge that showed reasonable potential for these pollutants. New final effluent limitations for dissolved inorganic nitrogen, and carbonaceous biochemical oxygen demand have been established to implement the waste load allocations contained in the Lost River Total Maximum Daily Load (TMDL).
3. Additional monitoring requirements are included for constituents with new final effluent limitations due to the fact that monitoring data demonstrated reasonable potential for those constituents to be discharged at levels exceeding water quality objectives. In addition, the proposed permit includes updated monitoring requirements for cyanide, dichlorobromomethane, and bis(2-ethylhexyl)phthalate to facilitate effective compliance determination.
4. More stringent effluent limitations for chlorine residual have been established based on criteria for the protection of aquatic life. The new effluent limitations include a monthly average limit of 0.01 mg/L and a maximum daily limit of 0.02 mg/L. These requirements are more stringent than the requirement in the previous permit to achieve non-detectable levels at a detection limit of 0.1 mg/L.
5. Source control requirements are included due to the fact that this small facility has reasonable potential for a number of priority pollutants. The Permittee is required to implement public outreach activities and conduct a source control survey of all non-domestic facilities in the service area of the WWTF that might discharge pollutants that could pass through or interfere with the operation or performance of the WWTF.
6. New receiving water limitations and monitoring requirements have been added for total dissolved solids and specific conductance. These requirements are established pursuant to the Basin Plan.

7. New standard language has been added requiring electronic submittal of monitoring reports.
8. The CDO that is scheduled for adoption concurrently with the proposed permit includes interim effluent limitations and provides a compliance schedule for the Permittee to come into compliance with all requirements of the proposed permit.

RECOMMENDATION: Adopt NPDES Permit, Order No. R1-2013-0029 as proposed.

SUPPORTING DOCUMENTS:

1. Proposed NPDES Permit
2. Response to Comments/Staff Changes Document
3. Comment Letter
4. Public Notice

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