

Responses to Comments and Questions
June, 2010
Table Mountain Rancheria Wastewater Treatment Plant
NPDES Permit No. CA0084280

EPA received comments from one party, the California Regional Water Quality Control Board – Central Valley Region, dated May 19, 2010:

COMMENT:

The Fact Sheet indicates the Tribe does not have approved water quality standards for discharges to waters located on Table Mountain Rancheria (Discharger). It states that the water quality standards applicable to the San Joaquin River and its tributaries, as described in the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins – Fourth Edition – 1998* (Basin Plan), are applicable at the point where the discharge enters State waters. To be conservative, the permit applies the standards applicable to the San Joaquin and its tributaries to the WWTP Outfall 005. However, the proposed permit does not address State Water Resources Control Board Resolution No. 68-16, *Statement of Policy With Respect to Maintaining High Quality of Waters in California* (hereafter Resolution No. 68-16) which is incorporated by reference into the Basin Plan, and is itself a water quality standard. Resolution No. 68-16 requires implementation of Best Practicable Treatment or Control (BPTC) to ensure that the highest water quality is maintained consistent with the maximum benefit to the people of the State. BPTC is the level of treatment technologically achievable using “best efforts” and employing proper operation and maintenance. As discussed below, some of the proposed effluent limits are inconsistent with Resolution No. 68-16.

Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Settleable Solids (SS) Effluent Limits

The draft permit indicates that the Discharger implements tertiary treatment. If implemented and regulated properly, tertiary treatment will reflect BPTC consistent with Resolution 68-16. However, the permit effluent limitations in Part I.B., Table 1 only reflect secondary treatment. It is well established that tertiary treatment systems are capable of achieving significantly lower BOD, TSS, and SS concentrations than secondary treatment standards. In fact, Part V of the Fact Sheet for the existing permit shows that the BOD and TSS design parameters for the sequencing batch reactors are <10 mg/L.

The introductory paragraph in Fact Sheet, Part VI states, in part, that effluent limitations in the draft permit are based on an evaluation of the technology used to treat the pollutant and the performance capabilities of the WWTP. The proposed BOD, TSS, and SS effluent limitations do not reflect the performance capability of the tertiary treatment process employed by the Discharger and, thus, do not reflect BPTC consistent with resolution 68-16. Effluent meeting the proposed secondary treatment-based BOD, TSS, and SS effluent limitations may cause difficulties with consistently achieving the proposed coliform limitations, as high TSS and SS can interfere with the disinfection process. Consistent with the performance capabilities of tertiary treatment, BPTC, and other permits issued by US Environmental Protection Agency, Region IX, (e.g., NPDES Nos. CA0004009 and CA0005241), the following effluent limitations for BOD, TSS, and SS should be included in the proposed permit:

<u>Parameter</u>	<u>Units</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>
BOD ₅	mg/L	10	15	20
TSS	mg/L	10	15	20
SS	mL/L	--	--	0.1

Removal efficiencies and mass limits should be adjusted accordingly.

Finally, requiring the Discharger to comply with the limitations in the above table provides additional incentive for the Discharger to properly operate and maintain the WWTP. Including lower BOD limitations in the permit also decreases the likelihood that the discharge will cause a violation of the dissolved oxygen water quality objective.

RESPONSE:

The comment states that the effluent limitations for BOD, TSS, and SS “do not reflect BPTC consistent with Resolution 68-16”. This aspect of the comment lacks specificity in that the commenter does not provide any basis for why it believes that BPTC (best practicable treatment or control) amounts to tertiary level of treatment, or, conversely, why it believes EPA has failed to meet the BPTC requirement by establishing limits in the permit based on secondary treatment.

The commenter similarly fails to provide any basis for its general assertion that “[e]ffluent meeting the proposed secondary treatment-based BOD, TSS, and SS effluent limitations may cause difficulties with consistently achieving the proposed coliform limitations, as high TSS and SS can interfere with the disinfection process.” Furthermore, the commenter does not disagree with EPA’s conclusion that that total coliform bacteria exceedances were due to the UV disinfection system needing service in 2009. (See Fact Sheet for Proposed Permit, p. 11.)

EPA is required to issue permits that meet technology-based requirements and applicable water quality standards. The permit includes technology-based effluent limitations for BOD and TSS that are derived from EPA’s Secondary Treatment Regulations, 40 CFR Part 133 (see 40 CFR 122.44, 125.3 and 133.102, and Permit, Part I.B), and limits for SS pursuant to CWA Section 402(a) (as specified in the EPA Region IX Policy memo dated May 14, 1979). NPDES permits must also include requirements more stringent than technology-based effluent limitations, if more stringent requirements are needed to achieve water quality standards (see 40 CFR 122.44(d)). As set forth in the Fact Sheet, there are no water-quality based limits for BOD₅, TSS, and settleable solids in the Basin Plan; therefore, technology-based limits established for POTWs as described above are incorporated into the permit.

COMMENT:

The proposed permit requires the Discharger to monitor the effluent for total chlorine residual once per month and to maintain a daily log of the total residual chlorine concentration in the effluent storage tanks. Chlorine is highly toxic to aquatic life and poses an immediate threat if discharged at elevated levels. Monitoring the discharge once a month for total residual chlorine

is inadequate to ensure compliance with the effluent limitations, particularly when the basis for the 0.02 mg/L maximum daily effluent limitation is a 0.02 mg/L 1-hour average criterion.

At a minimum, the Discharger should be required to monitor the discharge to the unnamed tributary for total residual chlorine once per day. As the proposed permit requires once a day monitoring in the effluent storage tanks, requiring once a day monitoring of the discharge is not any more onerous on the Discharger.

RESPONSE:

The change has been incorporated.

COMMENT:

Part I.B, Table 1 requires composite samples for several parameters; however, the time over which the composite samples are to be taken is not specified. The permit should specify a compositing period such as an 8 or 24-hour composite.

RESPONSE:

24-hour compositing periods have been specified for parameters requiring composite samples.

COMMENT:

The proposed permit requires once per week effluent turbidity sampling. Sampling for turbidity once per week is insufficient to serve the purpose for which the turbidity effluent limitations were established. The Fact Sheet states that the turbidity effluent limitations are based on recycled water criteria contained in Title 22, California Code of Regulations, Division 4, Chapter 3 (Title 22). The turbidity requirements contained in Title 22 are established to ensure the filtration system is functioning properly. A properly functioning filtration system is key to ensuring the effectiveness and reliability of the disinfection process.

Consistent with the requirements of Section 60321 of Title 22, the permit should require continuous turbidity monitoring immediately downstream of the sand filters. Failure of the filtration system such that pathogen removal is impaired would normally result in increased particles in the effluent, which result in higher effluent turbidity. Turbidity has a major advantage for monitoring filter performance, allowing immediate detection of filter failure and rapid corrective action. Once a week turbidity monitoring will not provide immediate detection of filter failure, which could result in several days of inadequately disinfected wastewater. Furthermore, coliform testing does not provide immediate feedback that corrective action is necessary, as it is not conducted continuously and requires several hours, to days, to process and identify high coliform concentrations.

RESPONSE:

The change has been incorporated.

COMMENT:

Part I.A of the proposed permit requires that the discharge shall not cause certain conditions in downstream waters such as causing the dissolved oxygen concentration to fall below 7.0 mg/L or causing the ambient temperature to increase more than 5°F. However, the proposed permit does not require the Discharger to monitor the receiving water. At a minimum, the permit should require the Discharger to monitor upstream and downstream of Outfall 005 for temperature, dissolved oxygen, pH, turbidity, and hardness. Receiving water monitoring will not only aide in determining compliance with permit limitations, but will provide additional data for calculating criteria that are dependent on other parameters (e.g., criteria for ammonia and certain metals).

RESPONSE:

The receiving water consists of a small, seasonal intermittent stream that is effluent-dominated. For this reason, the permit includes effluent limits that are equal to or more stringent than receiving water limits for the same parameters, and monitoring for compliance with effluent limits is adequate to determine compliance with the receiving water limits.

COMMENT:

Typo in Part I.A, Table 1 of the Proposed Permit

The average monthly and maximum daily effluent limitations for nitrate + nitrite (as N) are reversed. Consistent with the Fact Sheet, the average monthly limitation should be 10 mg/L, and the maximum daily limitation should be 29.6 mg/L.

REPOSENSE:

The change has been incorporated.

COMMENT:

Part III.C of the Proposed Permit

With the possible exception of certain basic analyses, chemical bacteriological, and bioassay analyses should be conducted at a laboratory certified for such analyses by the California Department of Public Health. This requirement will help ensure data integrity and is included in another permit issued by US Environmental Protection Agency, Region IX (i.e., NPDES No. 0004009).

REPOSENSE:

EPA cannot require a Tribal facility to use only laboratories certified by the California Department of Public Health. The permit requires the use of analytic methods set forth in 40 CFR Part 136, which include quality control requirements for laboratories performing those analyses.

COMMENT:

Part III.D.3 of the Proposed Permit

To be consistent with the chronic toxicity effluent limitation in the proposed permit, the second sentence should be modified as follows:

“...or any one or more test results with a calculated monthly median value...”

RESPONSE:

The change has been incorporated.

COMMENT:

Treatment Plant Capacity Attainment and Planning

Fact Sheet, part IX.C states that the permit requires a written report within 90 days if the average dry-weather flow for any month exceeds 90 percent of the annual dry-weather design capacity of the WWTP. However, the proposed permit does not include this requirement. This requirement is included in the current permit and should be included in the proposed permit. This requirement is particularly important because the proposed permit does not include a flow limitation.

RESPONSE:

The change has been incorporated.