California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2004-0074

REQUIRING THE CITY OF TULELAKE TO CEASE AND DESIST FROM DISCHARGING OR THREATENING TO DISCHARGE EFFLUENT IN VIOLATION OF WASTE DISCHARGE REQUIREMENTS, ORDER NO. R1-2004-0075
(NPDES PERMIT NO. CA0023272)
ID No. 1A84002OSIS

Siskiyou County

The Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. The City of Tulelake (hereinafter Permittee) owns and operates facilities for municipal wastewater collection and treatment serving the community.

2. The Wastewater Treatment Facility is designed to treat 160,000 gallons per day of effluent. The facility consists of the headworks, two aerated lagoons, two sand filters, and chlorination and dechlorination chambers. The headworks include an on-site pump station receiving sewage from the collection system, comminutor, and pumps. Treated wastewater is disinfected using chlorine gas and dechlorinated with sulfur dioxide gas prior to discharge to Tulelake Irrigation District's Drain No. 44-B-1 at 41°56'55" North, 121° 28'15" West. The facility is located within the NE ¼ of Section 2, T47N, R4E, MD B&M.

3. Drain No. 44-B-1 is tributary to the Tulelake-Lower Klamath Lake reach of the Lost River Basin, waters of the United States.

4. On August 26, 1999, the Regional Water Board adopted Waste Discharge Requirements (WDRs), Order No. 99-62, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0023272 for the facility. The WDRs/NPDES Permit expired on August 26, 2004. Terms of the WDRs/NPDES Permit were extended administratively by letter dated August 23, 2004. Concurrent with this Order, the Regional Water Board is considering the adoption of Order No. R1-2004-0075 renewing the WDRs/NPDES Permit for an additional five-year period. The WDRs/NPDES Permit includes discharge prohibitions, effluent and receiving water limitations, solids disposal specifications, and compliance provisions. The Permittee has accumulated multiple violations to the terms in Order No. 99-62 and threatens to violate the terms of that Order, as well as Order No. R1-2004-0075 when adopted.

5. Terms in Order No. 99-62 that have been violated and that threaten to be violated are:

A. DISCHARGE PROHIBITIONS

2. Creation of a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code (CWC) is prohibited. [Health and Safety Code, Section 5411]

4. The Discharge of untreated waste from anywhere within the collection, treatment, or disposal facility is prohibited.

B. EFFLUENT LIMITATIONS

1. Representative samples of the discharge must not contain constituents in excess of the following limits.

Constituent	Units	Average	Mean	Maximum
BOD (20ºC, 5-day)	mg/l	30	----	60
	lb/day	40	----	80
Suspended Solids	mg/l	50	----	80
	lb/day	67	----	107
Settleable Solids	ml/l		0.1	0.2
Coliform Organisms	MPN/100 ml		23	230
Chlorine Residual	mg/l	---	---	0.1
Hydrogen Ion pH	Not less than 6.5 nor greater than 8.5			

2. The arithmetic mean of the BOD (20ºC, 5-day) and Suspended Solids values by weight for effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values, by weight, for influent samples collected at approximately the same time during the same period (85 percent removal).

4. The survival of test fish in 96-hour [static or continuous flow] bioassays in undiluted effluent samples shall equal or exceed 90% survival 67% of the time, and 70% survival 100% of the time.

E. PROVISIONS

5. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the Permit. Proper operation and maintenance includes adequate laboratory quality controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Permittee only when necessary to achieve compliance with the conditions of this Order. [40 CFR 122.41(e)]

6. Multiple incidents indicate chronic malfunctions of some wastewater treatment facility components. The table below summarizes some of the incidents reported:

Report Date	Incident Description
February 26, 1976	Aeration ponds leaked during testing using clean water. Bentonite was incorporated into the soil to discontinue seepage.
December 4, 1978	Automated features including chlorine residual measurements, flow proportioning, and flow measurements are reported not working. These features are operated manually at this time.
December 20, 1978	Operator reports problems with chlorination/dechorination system.
November 14, 1980	Problems are reported with aerators and sand-filter beds
December 20, 1981	Sand-filter beds being bypassed because of freezing conditions.
January 3, 1983	Blowers producing aeration in ponds reported broken.
August 8, 1983	Operator requests to abandon sand-filter beds
February 19, 1986	Operator reports seeps in west end of pond dikes

Subsequent reports dating from 1986 to 2001 continued indicating malfunctions associated with the aerators, and the chlorination and dechlorination system, and seepage in the western berm of the treatment ponds.

7. Self-monitoring reports also show chronic effluent limitations violations of some constituents during set time periods. The table below summarizes effluent limitation violations compiled from self-monitoring reports submitted between October 1999 and April 2004:

Parameter	Discharge Serial No. 001		
	30-Day Average	Daily Maximum	< 85% Removal
BOD_5 (mg/l)	4	0	---
BOD_5 (lbs/d)	0	0	54
Suspended Solids (mg/l)	21	6	---
Suspended Solids (lbs/d)	0	0	18
Total Coliform (MPN/100 ml)	17[1]	73	---
Chlorine Residual (mg/l)	---	39	---
pH (standard units)	14		
Acute Toxicity Bioassay[2]	5		

On multiple occasions during September 1999 and June 2001, the Permittee failed to report chlorine residual, daily flow, and settleable solids. Also, the Permittee failed to analyze DO, pH, and influent and effluent TSS and BOD, during 11 weeks between September 1999 and April 2000. Therefore, the actual number of effluent limitation violations that occurred could have been higher.

8. On March 20, 2002, the WWTF operator informed Regional Water Board Staff of an unspecified volume of effluent lacking dechlorination discharged to Drain No. 44-B-1. This discharge lasted

[1] Median.
[2] Percent survival of test species less than 70%

from 3:00 PM on March 13 to 6:00 AM March 14, 2002. Using the flow recorded during the days leading to March 13 and after March 14 (0.09 mgd) the estimated discharge amounts to approximately 56,000 gallons. On April 29, 2004, the operator informed Regional Water Board staff that faulty chlorination equipment lead to discharging an estimated 46,600 gallons of effluent lacking disinfection.

9. During a routine inspection conducted on March 13, 2002, Regional Water Board staff noted seepage from the western berm of the oxidation ponds. Effluent accumulated next to an adjacent property. According to the operator, the neighboring property is used for seasonal pig rearing by the local high school students. Seepage and effluent ponding was observed at the same locations during an inspection conducted on April 1, 2004. Seepage occurs after effluent levels in the ponds exceed an elevation of approximately 11 feet in the staff gauge.

10. Findings 6 through 9 illustrate the level of deterioration of the WWTF. Major upgrades are needed to cease operational violations and for the WWTF to achieve acceptable treatment levels. Necessary upgrades are likely to take an extended time period for completion. Upgrades will likely entail preparing facilities securing funding, planning, clearing the California Environmental Quality Act (CEQA) process, design and construction.

11. A Preliminary Engineering Report dated August 25, 2003, was prepared for the Permittee. The report discusses current conditions of the wastewater collection and treatment facilities and provides upgrade alternatives. The report, funded by a Community Development Block Grant, is an initial step in addressing long-term upgrades to the collection and treatment facilities. Some measures have been implemented by the Permittee to reduce effluent limitation violations. However, continuing chronic effluent limitation and operational violations indicate serious deficiencies in the wastewater treatment facility.

12. This enforcement action is exempt from the requirements of the California Environmental Quality Act pursuant to Title 14 of the California Code of Regulations, Section 15321.

13. On October 6, 2004, after due notice to the Permittee and all other affected persons, the Regional Water Board conducted a public hearing and evidence was received regarding this Cease and Desist Order.

THEREFORE, IT IS HEREBY ORDERED that the City of Tulelake shall cease discharging waste in violation of Waste Discharge Requirements, Order No. 99-62, as well as any succeeding permit forthwith, and shall comply with the following time schedule and requirements:

a. Facilities Planning. Submit a report evaluating viable alternatives for upgrading the wastewater treatment facility. Provide information supporting the viability of the selected process from a financial, design, construction, and CEQA compliance aspect. The facilities plan must indicate a preferred alternative.

Date due: May 1, 2005, Progress Report
November 1, 2005, Final Report

b. CEQA Compliance. Submit a progress report describing the current state of the CEQA compliance process. Submit a final report showing that CEQA compliance process has been completed.

Date due: March 15,2005, Progress Report
July 1,2005, Final Report

c. Project Design. Commence design and submit 10% and 50% design reports. Submit the final design specifications.

Date due: January 1,2006, Commence Design and submit notice to Regional Water Board.
July 1,2006, 10% Design Submittal
December 1, 2006, 50% Design Submittal
July 1,2007, Final Design Submittal

d. Financing. Obtain financing for construction.

Date due: January 1,2008 and submit notice to Regional Water Board.

e. Construction Activities. Submit construction activities progress reports indicating different completion stages.

Date due: June 1,2008, Commence Construction and submit notice to Regional Water Board.
November 1, 2008, 33% construction completion progress report (or actual percentage of project completed to date)
July 1, 2009, 67% construction completion progress report (or actual percentage of project completed to date)
October 1,2009, Complete construction and submit notice to Regional Water Board.

Certification

I, Catherine E. Kuhlman, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on October 6,2004.

Catherine E. Kuhlman
Executive Officer

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