

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 6, 2004

Prepared on January 14, 2004

ITEM NUMBER: 16

SUBJECT: MANDATORY MINIMUM PENALTY COMPLAINT NO. R3-2004-0004 - CALIFORNIA DEPARTMENT OF PARKS AND RECREATION, BIG BASIN REDWOODS STATE PARK, WASTEWATER TREATMENT PLANT; ORDER NO. 00-31, NATIONAL POLLUTANT DISCHARGE ELIMINATION (NPDES) PERMIT NO. CA0048267

KEY INFORMATION

Location: 3/4-mile southwest of Big Basin Redwoods State Park Headquarters, Santa Cruz Mountains, 9 miles west of Boulder Creek

Type of Discharge: Domestic Wastewater

Design Flow: 150,000 gallons per day

Average Flow: 42,000 gallons per day

Type of Treatment: Tertiary - trickling filter, clarification, coagulation, sand filtration, clinoptilite filtration (seasonal operation, typically April through November), chlorination, and dechlorination.

Disposal Method: Discharge to East Branch of Waddell Creek (37°09'81" N. Latitude, 122°13'42" W. Longitude)

Existing Orders: Waste Discharge Requirements Order No. 00-031, NPDES No. CA0048267

SUMMARY

On July 17, 2002, Big Basin Wastewater Treatment Plant (Discharger) experienced a serious effluent violation. ("Serious" violations are those that exceed effluent limits for Group I or Group II constituents by at least 40% or 20%, respectively.) Pursuant to California Water Code Section 13385h(1), the Discharger is subject to a mandatory penalty of \$3,000 per serious violation.

In Complaint No. R3-2004-0004, The Regional Board Executive Officer assessed a total penalty of three thousand dollars (\$3,000).

BACKGROUND

Big Basin Redwoods State Park, located in the Santa Cruz Mountains, has approximately 100 miles of hiking trails, a Museum/Nature Center, a general store, nearly 200 campsites, and housing for state park employees. The wastewater treatment plant was built in the late 1930s to accommodate the growing number of visitors. The Central Coast Regional Board has regulated this wastewater treatment facility since 1968.

The facility discharges approximately 42,000 gallons per day of treated domestic wastewater to the East Branch of Waddell Creek. The discharge point is about ¼ of a mile southwest of park headquarters.

Wastewater from the park is treated at the facility, which has a reported 150,000-gallons per day treatment capacity. The Discharger's wastewater treatment plant is composed of the following elements: bar screen, comminutor, influent and effluent flow meters, primary and secondary clarifiers, chemical coagulation, trickling filter, anaerobic digester, sludge drying bed, slow rate sand filter, clinoptilite filtration (seasonal operation, typically April through November), pH control, chlorination and dechlorination.

The Discharger began using the clinoptilite filter system in November 2000 to control effluent un-ionized ammonia concentrations. The Discharger's 2001 Annual Report indicates the clinoptilite system will be taken offline every winter and brought online again every spring.

HISTORY OF VIOLATIONS

The Discharger has a history of effluent limitation violations from its treatment plant and discharges of raw sewage from its collection system. In 1989, the Regional Board issued a suspended administrative liability order in the amount of \$600,000 against the Department of Parks and Recreation, with suspension conditioned upon upgrade of the Discharger's treatment plant to achieve secondary treatment. The Board also required the Discharger to inspect and repair or replace its collection system to prevent leaks. The Discharger met the Regional Board's deadlines and the suspended liability was revoked.

Despite plant improvements, the Discharger had a history of violating the un-ionized ammonia limits of its NPDES Permit. Historically these violations have occurred regularly during summer and early fall of each year. In 1994, the Discharger

performed a pilot study of an experimental clinoptilite filter system. The pilot test lasted three years and was able to maintain compliance with un-ionized ammonia limits while the system was in operation. A full-scale clinoptilite filtration unit was delivered to the plant in July 1999, and was brought on-line in November 2000.

The Discharger reported numerous violations of un-ionized ammonia limitations and other effluent limitations in the late spring and summer of 2000. At the November 29, 2000 Central Coast Regional Board meeting, staff proposed thirty-three thousand dollars (\$33,000) in mandatory minimum penalties for thirteen un-ionized ammonia violations that occurred between March 1, 2000 and September 1, 2000.

At the November 29, 2000 Board Meeting, Bob Culbertson, Big Basin State Park Superintendent, requested the Board allow mitigation projects in lieu of the \$33,000 penalty.

Mr. Culbertson explained that, beginning January 1, 2001, an amendment to SB709 (Migden) would allow small communities to perform "compliance projects" (i.e., projects that would bring the discharger back into compliance) instead of paying the monetary penalties.

The Regional Board directed Regional Board staff to determine whether the Discharger qualified as a "small community" after the State Board's revised enforcement policy was published.

The February 19, 2002 Water Quality Enforcement Policy states "a subdivision of state government shall not be considered a small community with a financial hardship." Therefore, the Discharger's penalties could not be applied toward a compliance project.

On July 31, 2002, the Executive Officer issued a \$135,000 complaint¹ to the Discharger for violations occurring between May 19, 2000 and December 26, 2001. The Discharger waived its right to a hearing and agreed to pay the penalty. On September 20, 2002, the Regional Board adopted a Mandatory Minimum Penalties Order for \$135,000. The Discharger paid the penalty.

In late summer of 2002, the wastewater treatment plant operator began monitoring and controlling wastewater pH and temperature in the clinoptilite filter system. By doing so, the Discharger has been able to achieve required un-ionized ammonia discharge concentrations, thereby significantly reducing un-ionized ammonia exceedances in 2002.

MANDATORY PENALTIES

Limits from the Discharger's waste discharge requirements permit (Order 00-31), as shown in Table A, were used to determine compliance.

Table A
Effluent Limitations

Parameter	Type	Limit	Units
Un-Ionized Ammonia	Maximum	0.025	mg/L
Un-Ionized Ammonia*	Maximum, Serious	0.035	mg/L

* This limit was determined in accordance with Water Code Section 13385 to determine whether violations are more than 140% of discharge limit, and thereby considered "serious"

According to the Discharger's self-monitoring reports, the Discharger exceeded

¹ The complaint brought to the Board in November 2000 covered the period of March 1, 2000 through September 1, 2000. When the July 31, 2002 complaint was prepared, staff did a more detailed review of the Discharger's self-monitoring reports, and found additional violations occurred during the same period. Thus, the July 31, 2002 complaint alleged more violations than the previous complaint. Additionally, the July 31, 2002 complaint included violations that occurred after September 1, 2000.

discharge limitations for un-ionized ammonia on July 17, 2002. The violation is considered 'serious' because the reported effluent concentration of un-ionized ammonia (a Group I constituent) exceeded the discharge limitation by at least forty percent. In accordance with Water Code Sections 13385(h)(1) and 13385(i), the mandatory penalty amount for this violation is three thousand dollars (\$3,000), as shown in Table B.

Table B
Effluent Exceedances

Date	Parameter	Reported Value	Violation Type	Penalty
07/17/02	Un-ionized Ammonia	0.0702 mg/L	Serious	\$3,000
Total:				\$3,000

RECOMMENDATION

Complaint R3-2004-0004 recommended the Discharger be assessed the three thousand-dollar (\$3,000) mandatory penalty.

After receiving the Complaint, the Discharger waived his right to a hearing and paid the three thousand dollars (\$3,000).