

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER NO. R5-2006-0035

REQUIRING
NEVADA COUNTY SANITATION DISTRICT NO. 1
CASCADE SHORES WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) finds:

1. Nevada County Sanitation District No. 1, (hereafter referred to as Discharger) owns and operates the Cascade Shores Wastewater Treatment Plant (WWTP) in Nevada County.
2. On 14 June 2001, the Regional Water Board adopted Waste Discharge Requirements (WDRs), Order No. 5-01-177, NPDES No. CA0083241, prescribing waste discharge requirements for the Discharger's Cascade Shores WWTP.

Noncompliance with Cleanup & Abatement Order

3. On 9 May 2005, a landslide took place on the cliff overhanging the Cascade Shores WWTP, resulting in the displacement of the main influent pipeline to the plant and the discharge of raw sewage to Gas Canyon Creek. The WWTP is situated at the base of the cliff and continued landslides threaten to impair the ability of the WWTP to treat waste. The Discharger has completed temporary repairs to the sewer line but has not stabilized the hillside or undertaken other measures, such as relocating the package treatment plant, to prevent the WWTP from being disabled. The instability of the cliff and potential for continued landslides, and location of the WWTP, pose a significant threat of the continued ability of the WWTP to treat wastes. The current site conditions threaten to cause violation of Waste Discharge Requirements and threaten water quality and the beneficial uses of the receiving stream. The threat will increase during the wet season as the hillside soils become saturated.
4. On 23 August 2005, the Regional Water Board issued Cleanup and Abatement Order (CAO) No. R5-2005-0714. CAO No. R5-2005-0714 Compliance Measure No. 1 requires that all activities necessary for the WWTP improvements and/or hillside stabilization long-term compliance measures must be completed by 14 June 2006.
5. After the landslide, the Discharger conducted a subsurface investigation of the hillside in order to determine the cause(s) of the landslide and to evaluate the continued hazards to the WWTP associated with future landslide activity. The Discharger's Landslide Investigation and Geotechnical Engineering Report, dated 14 September 2005, indicated that interim measure(s) may be used to reduce hazards to the WWTP that are associated with landslides in the short-term; however, the report recommends that long-term measures involve relocation the WWTP from its current location. The report states that "*The existing treatment plant location, at the toe of an oversteepened slope and downslope of an existing landslide feature, is not suitable for the future*

improvements or expansion due to potential hazards associated with large scale landslide activity.”

6. On 15 September 2005, the Discharger requested extending the full compliance date from 14 June 2006 to 31 August 2007 in order to allow sufficient time to relocate the WWTP away from the hillside. This Order extends the final compliance date until 31 August 2007.

Noncompliance with WDRs

7. WDR Order No. 5-01-177 Effluent Limitations No. B. 1A includes, in part, the following effluent limitations:

<u>Constituent</u>	<u>Unit</u>	<u>Monthly Median</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>
Chlorine Residual	mg/l	---	---	---	0.02
BOD	mg/l		15	20	35
	lb/Day		3.3	4.3	7.6
Total Suspended Solids	mg/l		15	20	35
	lbs/Day		3.3	4.3	7.6
Settleable Solids	ml/l		0.1		0.2
Total Coliform Organisms	MPN/100 ml	2.2	--	---	23

8. WDR Order No. 5-01-177 Effluent Limitations No. B. 4 states, “The discharge shall not have a pH less than 6.5 nor greater than 8.5.”
9. WDR Order No. 5-01-177 Effluent Limitations No. B. 5 states, “The concentration of dissolved oxygen shall not fall below 7.0 mg/l in the discharge.”
10. According to the Discharger’s Self-Monitoring Reports, the Discharger has committed 151 violations of Order No. 5-01-177 Effluent Limitations Nos. B.1.A, B.4, and B.5 during the time period between 14 June 2001 and 31 August 2005 for total suspended solids, total coliform organism, BOD, total chlorine residual, pH and dissolved oxygen.
11. WDR Order No. 5-01-177 Effluent Limitations No. B. 1B includes, in part, the following effluent limitations:

Effluent shall not exceed the following limits after **14 June 2006**:

<u>Constituent</u>	<u>Unit</u>	<u>7-Day Median</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>
Total Coliform Organisms	MPN/100 ml	2.2	---	---	23
Turbidity	NTU	---	2	---	5

<u>Constituent</u>	<u>Unit</u>	<u>7-Day Median</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>
Ammonia	mg/l	---	---	Attach. C	Attach. B
Nitrates (as N)	mg/l	---	10	---	---

12. The Discharger’s Self-Monitoring Reports indicate that the effluent quality does not comply with the above listed effluent limitations for ammonia, nitrates, turbidity and total coliform organisms (7-Day Median only).
13. WDRs Order No. 5-01-177 Provision No. E.4 requires that “*The Discharger shall maintain and operate the filters at all times the plant is in operation.*” In addition, WDR Order No. 5-01-177 Effluent No. B. 2 states, “*Wastewater shall be oxidized, coagulated and filtered, or equivalent treatment.*”
14. According to the Discharger’s Self-Monitoring Reports and WWTP’s operation logbook, the Discharger has established the practice of taking the WWTP’s filtration system off-line during the wet season.
15. WDRs Order No. 5-01-177 Provision No. E.5 requires that “*The Discharger shall comply with the following time schedule to improve effluent monitoring, to upgrade the facility to full tertiary treatment, to up grade the facility to nitrification and denitrification, and to assure compliance with Effluent Limitations of this Order:*

<u>Task</u>	<u>Compliance Date</u>
<i>Submit Work Plan and Time Schedule</i>	<i>90 Days after permit adoption</i>
<i>Submit Technical Report regarding Tertiary Treatment</i>	<i>2 Years after permit adoption</i>
<i>Install Continuous Chlorine Residual Monitoring Device</i>	<i>2 years after permit adoption</i>
<i>Install Continuous Turbidity Monitoring Device</i>	<i>5 years after permit adoption</i>
<i>Submit Progress Reports</i>	<i>Annually</i>
<i>Full Compliance</i>	<i>14 June 2006</i>

The Discharger shall submit to the Board, on or before each compliance due date, the specified document or written report detailing compliance or noncompliance with the specific task. If noncompliance is reported, the Discharger shall state the reasons for the noncompliance and include an estimate of the date when the Discharger will be in compliance.”

16. On 13 September 2001, the Discharger submitted a Work Plan for Provision No. E. 5 which indicated that the technical report for the evaluation of the tertiary treatment would be submitted by no later than 15 June 2003. On 29 October 2002, the Discharger submitted an updated Work Plan that revised the technical report submittal date to 31 December 2003. The Discharger failed to submit the technical report by the revised date listed in the updated Work Plan. The Discharger

failed to submit the required technical reports analyzing whether the existing wastewater treatment process provides an equivalent to tertiary treatment and the installation of the chlorine residual monitoring device by the Order's specified due dates.

17. The Discharger was required to install a continuous chlorine residual monitoring device within two years of the permit adoption, i.e. 14 June 2003. According to the Discharger's updated Work Plan, dated 29 October 2002, the chlorine monitoring device was to be installed by 31 October 2003. To date, the Discharger has not installed a continuous chlorine residual monitoring device.
18. The Discharger failed to submit annual progress reports in 2003, 2004, and 2005, which detailed the compliance or noncompliance status for the specified tasks: tertiary treatment, chlorine residual monitoring device, and the turbidity monitoring device.
19. By letter, dated 15 September 2005, the Discharger states that full compliance cannot be achieved by 14 June 2006. The Discharger also states that it has committed to the design and construction of a new wastewater treatment plant in order to comply with Effluent Limitations No. B.1 B and Provision No. E.5. The Discharger requests extending the full compliance date from 14 June 2006 to 31 August 2007 because it will not complete construction and achieve full compliance until that time.
20. WDRs Order No. 5-01-177 Provision No. E.6 requires that "*The Discharger conduct chronic toxicity testing specified in the Monitoring and Reporting Program. If chronic toxicity testing indicates that the discharges causes, has the reasonable potential to cause, or contributes to in-stream excursion above water quality objective for toxicity, the Discharger shall initiate a Toxicity Identification Evaluation to identify the causes of toxicity...*"
21. Chronic toxicity test results, dated 1 December 2004, show that both survival and reproduction of *Ceriodaphnia* exposed to 100 percent effluent were significantly reduced when compared to survival in the laboratory control. The test results show that the percentage of survival for *Ceriodaphnia dubia* in the effluent and the laboratory control was 0 and 100 percent, respectively. The data indicates that the discharge has the reasonable potential to cause toxicity. The Discharger failed to conduct a Toxicity Identification Evaluation to identify the cause of toxicity.
22. The WWTP is staffed for approximately twelve to nineteen hours per week and is left unmanned for the remaining period of time (149 hours). The WWTP operators manually control the flow of wastewater through the WWTP using a gate valve on the V-Notch Weir and other treatment processes are also operated/controlled manually. During the wet season the influent flow rate is subject to significant variation and the influent flow rates may increase from 11,000 gallons per day (gpd) to 45,000 gpd. A significant number of the cited effluent violations have occurred during the wet season and when the WWTP was left unmanned. When the filtration treatment process is bypassed, the quality of the wastewater is further deteriorated.

Filtration is an effective means of removing waste solids and pathogens from the wastestream. Failure to filter the wastestream directly degrades contact recreation, food crop irrigation, and municipal and domestic uses of downstream waters as well as threatens other beneficial uses by

the increased pollutant load. Monitoring effluent discharges when the filtration system is bypassed is appropriate.

23. Section 13301 of the California Water Code states, in part, that: *“When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of the requirements or discharge prohibitions prescribed by the regional board or state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action...”*
24. Section 13267(b) of the California Water Code provides that: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*
25. The technical reports required by this Order are necessary to ensure compliance with WDRs Order No. 5-01-177 and this Cease and Desist Order. The reports are also necessary to assure protection of public health and safety. The Discharger owns and operates the facility that discharges the waste subject to this Order.
26. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations from the mandatory minimum penalties. CWC section 13385(j)(3) exempts the discharge from mandatory minimum penalties *“where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met. ... For the purposes of this subdivision, the time schedule may not exceed five years in length...”* The time schedule for ammonia, nitrate, turbidity and 7-day median total coliform organisms effluent limitations subject to this Order were adopted on 14 June 2001 in WDRs Order No. 5-01-177 with an effective date of 14 June 2006. Notwithstanding compliance schedules set forth in this Order, in accordance with the provisions of CWC section 13385(j), if the Discharger violates the effluent limitations in Order 5-01-177 subsequent to 14 June 2006, the Discharger may be subject to penalties set forth in section 13385(i) of the California Water Code.
27. On 4 May 2006, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Water Board conducted a public hearing at which evidence was

received to consider a Cease and Desist Order to establish time schedules to achieve compliance with the effluent limitations for ammonia, nitrate, TDS, electrical conductivity and volatile organic compounds and tertiary treatment requirements.

28. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, *et seq.*), in accordance with Section 15321 (a)(2), Title 14, California Code of Regulations.
29. Any person adversely affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Board) to review the action. The petition must be received by the State Board Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date which the action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED THAT pursuant to Sections 13301 and 13267 of the California Water Code:

1. The Discharger shall **immediately** comply with WDR Order No. 5-01-177 Effluent Limitation Nos. B.1.A, B.4. and B.5.
2. The Discharger shall **immediately** establish a Contingency Backup Plan that will be immediately implemented in the event that the short-term measures to stabilize the hillside fail prior to completing the long-term measures specified in Compliance Measure No. 8 of this Order. At a minimum, the Contingency Backup Plan shall eliminate the threat and ensure compliance with WDRs Order No. 5-01-177, such as, but not limited to, plugging broken sewer lines, containing the sewage and the pumping and hauling the sewage from the Cascade Shores Community to an alternate treatment plant for disposal. The Discharger shall ensure that all necessary materials and equipment required to implement the plan are available.
3. The Discharger shall **immediately** comply with WDR Order No. 5-01-177 Provision No. E. 4 and Effluent Limitation No. B.2 requiring filtration of the wastewater prior to discharge.
4. **One month after Order adoption**, the Discharger shall comply with WDRs Order No. 5-01-177 Provision No. E.6. In addition, the Discharger shall conduct chronic toxicity testing, as specified in Monitoring and Reporting Program No. 5-01-177. If the chronic toxicity monitoring indicates the potential for toxicity in the effluent, then at that time the Discharger shall **immediately** conduct a Toxicity Identification Evaluation to identify the cause of toxicity. The Discharger shall include the monitoring results with the Discharger's Monthly Self-Monitoring Report that covers the time period when the test was conducted.
5. **One month after Order adoption**, in the event that the filtration system is bypassed, the Discharger shall collect a grab sample of the effluent for chlorine residual, settleable solids, pH, turbidity, ammonia, nitrates, total coliform organisms and acute toxicity testing. Effluent samples shall be collected and analyzed as specified in Monitoring and Reporting Program No. 5-01-177. The Discharger shall include the monitoring results with the Discharger's Monthly Self-

Monitoring Report that covers the time period when the test was conducted. Filter bypass monitoring shall be performed in addition to any normal scheduled monitoring.

6. **Three months after Order adoption**, the Discharger shall install continuous monitoring and recording device(s) to monitor total chlorine residual and pH concentrations in the effluent. The continuous monitoring/recording devices shall be connected to a remote alarm system that is capable of notifying the WWTP operators in the event of any potential chlorine residual or pH violations during time periods when the WWTP is left unmanned.
7. **By 30 September 2007**, the Discharger shall comply with WDR Order No. 5-01-177 Effluent Limitations No. B.1.B.
8. **By 14 June 2006**, the Discharger shall install continuous monitoring and recording device(s) to monitor turbidity concentrations in the effluent.
9. The Discharger shall comply with the following time schedule to assure compliance with WDR Order No. 5-01-177 Provision E.5 as described in the above Findings:

<u>Task</u>	<u>Compliance Date</u>
1. Complete Plans and Specifications for Treatment Facilities to Comply with Effluent Limitation No. B.1.B and Provision No. E.5.	15 July 2006
2. Complete Improvements of Treatment Facilities to ensure compliance with Effluent Limitations B.1.B and Provision E.5.	30 September 2007
3. Submit Quarterly Progress Report ¹	1 January, 1 April, 1 July, and 1 October of each year

¹The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date. If noncompliance is reported, then the Discharger shall state the reasons for the noncompliance, list the corrective action(s) planned or taken to return to compliance and include an estimate of the date when the Discharger will be in compliance.

10. **By 30 September 2007**, the Discharger shall complete the facility improvements listed in the Cascade Shores WWTP Workplan Schedule, dated 15 September 2005, to stabilize the hillside and/or protect the WWTP (including relocating the facility) from continued landslides, which have the potential to cause the WWTP to violate Order No. 5-01-177.
11. The Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it

returns to compliance with the time schedule. The reports shall comply with reporting requirements specified in WDR Order No. 5-01-177 Standard Provisions and Reporting Requirements Section D.

12. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 4 May 2006.

PAMELA C. CREEDON
Executive Officer