

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0112

REQUIRING THE
NEVADA COUNTY SANITATION DISTRICT NO. 1
CASCADE SHORES WASTEWATER TREATMENT PLANT
NEVADA COUNTY

TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

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

1. Nevada County Sanitation District No. 1, (hereinafter Discharger) owns and operates the Cascade Shores Wastewater Treatment Plant (WWTP) which discharges up to 0.026 million gallons per day (mgd) of tertiary-treated wastewater to Gas Canyon Creek, a water of the United States and a tributary to Bear River via Greenhorn Creek and Rollins Reservoir, within Sacramento River Watershed.
2. On 14 June 2001, the Regional Water Board adopted Waste Discharge Requirements (WDR) Order No. 5-01-177, NPDES No. CA0083241, prescribing waste discharge requirements for the Discharger's Cascade Shores WWTP.
3. 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**:

Constituents					
	Units	Monthly Average	Weekly Average	7-day Median	Daily Maximum
Total Coliform Organisms	MPN/100 mL	--		2.2	23
Ammonia	mg/L		Attachment C Temp/pH Dependent Floating Ammonia Limit		Attachment B pH Dependent Floating Ammonia Limit
Nitrate (as N)	mg/L	10	--	--	--

4. WDR Order No. 5-01-177 Provision No. E. 5. states, *"The Discharger shall comply with the following time schedule to improve effluent monitoring, to upgrade the facility to full tertiary treatment, to upgrade the facility to nitrification and denitrification and to assure compliance with the associated Effluent Limitations of this Order"*:

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

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

5. By letter dated 15 September 2005, the Discharger stated that full compliance could not be achieved by 14 June 2006. The Discharger requested extending the full compliance date to 31 August 2007 in order to allow sufficient time to relocate the WWTP away from the unstable hillside above the existing WWTP. The Discharger committed to the design and construction of a new wastewater treatment plant by 31 August 2007 in order to comply with Effluent Limitations No. B.1B. and Provision No. E.5.
6. On 4 May 2006, the Regional Water Board adopted Cease and Desist Order (CDO) No. R5-2006-0035 to establish time schedules to achieve compliance with WDR Order No 5-01-177, Effluent Limitations No. B.1.B and Provision E.5:

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

¹ The 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 Discharge will be in compliance.

7. CDO No. R5-2006-0035 also required installation of continuous monitoring and recording device(s) to monitor turbidity concentrations in the effluent by **14 June 2006**. Continuous monitoring and recording device(s) to monitor total chlorine residual and pH concentrations in the effluent were to be installed by **4 August 2006**. The Discharger met the time schedule for installation of the above items on schedule.
8. By letter dated 15 December 2006 the Discharger stated that full compliance could not be achieved by the **30 September 2007** compliance date established in CDO No. R5-2006-0035. The Discharger reported that additional time was necessary to finance, design, and construct the new facilities and projected project completion by 2010. The Discharger requested "maximum extension of time allowable for the Cease and Desist Order".
9. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on 1 December 2005 to continue to discharge up to 0.026 million gallons per day (mgd) wastewater to Gas Canyon Creek.
10. On 31 July 2008, the Regional Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2008-0111, renewing NPDES No. CA0083241 for Nevada County Sanitation District No. 1, Cascade Shores Wastewater Treatment Plant, Nevada County and rescinded WDR Order No. 5-01-177.
11. Effluent limitations in the previous WDR Order No. 5-01-177, for nitrate and coliform organisms, are retained in WDR Order No. R5-2008-0111. The previous Order No. 5-01-177 contained "floating" effluent limitations for ammonia based on temperature and pH. Effluent limitations for ammonia in WDR Order No. R5-2008-0111 are more restrictive fixed limitations that are based on reasonable worst-case temperature and pH.
12. Based on the above findings and a review of the monitoring data supplied by the Discharger, this discharge threatens to violate the Effluent Limitations for ammonia, nitrate, and coliform organisms in WDR Order No. R5-2008-0111.
13. 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..."*
14. 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.”

15. The technical reports required by this Order are necessary to ensure compliance with WDR Order No. R5-2008-0111 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 and discharges the waste subject to this Order.
16. California Water Code (CWC) Section 13385(h) and (i) require the Regional Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC Section 13385(j) exempts certain violations from the mandatory penalties. CWC Section 13385(j)(3) exempts the discharge from mandatory 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...”*
17. The Regional Water Board finds that the Discharger is not able to consistently comply with effluent limitations for ammonia, nitrate, and total coliform organisms established in WDR Order No. R5-2008-0111. The time schedule for completing upgrades necessary to achieve full compliance exceeds the compliance dates in WDR Order No. 5-01-177 (14 June 2006) and CDO No. R5-2006-0035 (30 September 2007). Because the final effluent limitations in WDR Order No. 5-01-177, for nitrate and total coliform, did not become applicable until 14 June 2006, the exception from mandatory minimum penalties pursuant to CWC 13385(j)(3) allows the Discharger to avoid mandatory minimum penalties for up to five years from 14 June 2006 (subject to the requirement in CWC 13385(j)(3)(C) that the time schedule must be “as short as possible”). The ammonia limitation required by the renewed Order is a more restrictive limitation than that previously required of the Discharger. Therefore, the exception from mandatory minimum penalties pursuant to CWC 13385(j)(3) applies for ammonia for up to five years from the date of WDR Order No. R5-2008-0111, and for nitrate and total coliform organisms up to 14 June 2011.
18. On 31 July 2008, 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 adoption of Cease and Desist Order No. R5-2008-0111 to revise the schedule to achieve full compliance with the Effluent Limitations for ammonia, nitrates, and total coliform organisms.
19. 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

Sections 15061(b)(3) and 15321(a)(2), Title 14, California Code of Regulations, Section, and California Water Code section 13389.

20. Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date in which the action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED PURSUANT TO CALIFORNIA WATER CODE SECTION 13301, THAT:

1. Cease and Desist Order No. R5-2006-0035 is rescinded.
2. **By 18 May 2010**, the Discharger shall cease and desist from discharging waste contrary to the Effluent Limitations for ammonia, nitrates, and total coliform organisms in Waste Discharge Requirements Order No. R5-2008-0111.

Task	Compliance Date
A. Submit letter notifying the Regional Water Board of the Status of Funding (Grants and Loans) Commitments for Construction of the New Wastewater Treatment Plant	Within 30 days following Order adoption
B. Submit letter notifying the Regional Water Board of the Selected Bidder and Construction Schedule for Construction of the New Wastewater Treatment Plant	Within 60 days following Order adoption
C. Submit Pollution Prevention Plan (PPP) ¹ pursuant to CWC section 13263.3 for total, nitrate (as N), total coliform organisms, and ammonia, as appropriate.	Within 90 days following Order adoption
D. Construction Progress Reports (including discussion of compliance with construction schedule)	1 January, 1 April, 1 July and 1 October of each year
E. Plan for New Wastewater Treatment Plant Testing, Optimization and Implementation of the New Wastewater Treatment System	1 March 2009
F. Notification of Completion of Construction and Initiation of Operation	1 July 2009
G. Complete Compliance Evaluation and Achieve Full Compliance with Effluent Limitations for Ammonia, Nitrate, and Total Coliform Organisms	18 May 2010

¹ The PPP shall be prepared and implemented for ammonia, nitrates, and coliform organisms, as appropriate, and shall meet the requirements specified in CWC section 13263.3

3. The following interim effluent limitations shall be effective immediately, and shall remain in effect through 18 May 2010, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

Parameter	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation
Total Coliform (MPN/100 ml)	23 (monthly median)	240
Nitrates	-	48.7 mg/L as N
Ammonia (as N)	In accordance with Table 8	In accordance with Table 9

Table 8. Ammonia Monthly Average Concentration Limitation (mg N/L)

pH ¹	Temperature ¹ , °C (°F)									
	0 (32)	14 (57)	16 (61)	18 (64)	20 (68)	22 (72)	24 (75)	26 (79)	28 (82)	30 (86)
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

¹ Effluent pH and Temperature at time of effluent ammonia sampling.

$$CCC = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) \times MIN \left(2.85, 1.45 \cdot 10^{0.028(25 - T)} \right)$$

CCC = criteria continuous concentration, T = temperature in degrees Celsius (°C)

Table 9. pH-Dependent Effluent Limits for Ammonia - Criterion Maximum Concentration, Maximum Daily Effluent Limitation

pH¹	Ammonia Concentration Limit (mg N/L)
6.5	32.6
6.6	31.3
6.7	29.8
6.8	28.0
6.9	26.2
7.0	24.1
7.1	21.9
7.2	19.7
7.3	17.5
7.4	15.3
7.5	13.3
7.6	11.4
7.7	9.64
7.8	8.11
7.9	6.77
8.0	5.62
8.1	4.64
8.2	3.83
8.3	3.15
8.4	2.59
8.5	2.14
8.6	1.77
8.7	1.47
8.8	1.23
8.9	1.04
9.0	0.885

¹ Effluent pH at time of effluent ammonia sampling.

4. 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 or issue a complaint for Administrative Civil Liability.

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 31 July 2008.

PAMELA C. CREEDON, Executive Officer