

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2012-0004

AMENDING WASTE DISCHARGE REQUIREMENTS  
ORDER R5-2008-0111 (NPDES PERMIT NO. CA0083241)

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

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

1. On 31 July 2008, the Central Valley Water Board issued Waste Discharge Requirements (WDR) Order R5-2008-0111, prescribing waste discharge requirements for Nevada County Sanitation District No. 1's Cascade Shores Wastewater Treatment Plant, Nevada County. For the purposes of this Order, Nevada County Sanitation District No. 1 is hereafter referred to as "Discharger" and the Cascade Shores Wastewater Treatment Plant is hereafter referred to as "Facility."
2. The Facility provides service for 86 homes that were designated as a Small Community with Financial Hardship by the State Water Board in 2005. The current sewer service charge is \$2,445 per year, which calculates out to approximately \$204 per month per home. For fiscal year 2011/12 the Discharger is scheduled to collect \$225,350 for an annual operational budget of \$322,650.
3. On 1 July 2009 the Discharger upgraded the Facility's treatment to a system consisting of influent screens, equalization tank, two anoxic/aerobic basins, hydrated lime and carbon feed, secondary clarifier, ultra filtration membrane filters, and ultraviolet disinfection. Tertiary-level treated wastewater is discharged to the Gas Canyon Creek, a tributary to Bear River via Greenhorn Creek and Rollins Reservoir, within the Sacramento River Watershed.
4. WDR Order R5-2008-0111 Attachment E contains Effluent Monitoring IV.A.1, which reads, in part, as follows:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Coliform	MPN/100 mL	Grab	3/Week	1
Aluminum <sup>7</sup>	µg/L	Grab	1/Month	1
Mercury, Total Recoverable	µg/L	Grab	1/Month	1
	lbs/day	Calculated <sup>9</sup>	1/Month	1
Methyl Mercury	µg/L	Grab	1/Month	1

5. On 7 September 2011 the Discharger requested a reduction of the effluent monitoring for total coliform from three days per week to two days per week. The Discharger provided effluent total coliform monitoring data from the upgraded Facility's startup date until 31 July 2011 to demonstrate the effectiveness of the new treatment system in reducing total coliform levels. On 21 October 2011 the Discharger further requested a reduction in the effluent sampling frequency for mercury, methyl mercury, and aluminum based on performance of the new treatment system. The Discharger provided additional effluent monitoring data from the new treatment system startup through 31 October 2011. With the reduction in sampling the Discharger will be able to reduce the annual operational budget.
6. Analytical results for total coliform indicate that the effluent total coliform exceeded the 2.2 MPN/100 mL, as a 7-day median limit three times in two years; two violations occurred back to back in August 2009 and the other occurred in January 2011. No other total coliform violations occurred. Analytical results for mercury indicate that the new treatment system consistently complies with the mercury final effluent limit. For aluminum, the new treatment system exceeded the aluminum effluent limits once on 7 July 2011. The Discharger contacted their contract laboratory to evaluate if the sample analytical result of 135 µg/L was an error, especially in comparison to the historical data trend where all other samples were less than 49 µg/L. However, the laboratory responded that there was no evidence of a lab error and that they were unable to reanalyze the sample. But, as shown by the statistical analysis below, the 135 µg/L result is an outlier compared to the 27 other samples, which are below the maximum daily and average monthly effluent limits.

**Aluminum (µg/L)**

<b>Number of Samples</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Average</b>	<b>Median</b>	<b>Standard Deviation</b>	<b>99.9% Upper Confidence Interval</b>
28	135	3.9	17.0	11.7	24.0	96.3

7. Therefore, based on the new information the Central Valley Water Board determined that a reduction in effluent monitoring frequency is appropriate because the new treatment system demonstrates compliance with final effluent limits. Effluent sampling is reduced for total coliform monitoring from three times per week to twice per week, for aluminum from monthly to quarterly, and for mercury from monthly to annually. Methyl mercury effluent sampling is not required because a total maximum daily load (TMDL) has not been established for Gas Canyon Creek.

8. WDR Order R5-2008-0111 Attachment E contains Receiving Water Monitoring Requirements VIII.A., which reads as follows:

**Table E-6. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/week	1
	% Saturation	Grab	1/week	1
Ph	Standard Units	Grab	1/week	1
Temperature	°F(°C)	Grab	1/week	1
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/week	1
Turbidity	NTU	Grab	1/week	1
Fecal coliform	MPN/100 ml	Grab	Monthly	
Flow	Narrative	Visual	1/week	
Floating or suspended matter	Narrative	Visual	1/week	
Discoloration	Narrative	Visual	1/week	
Bottom Deposits	Narrative	Visual	1/week	
Aquatic Life	Narrative	Visual	1/week	
Visible films, sheens	Narrative	Visual	1/week	
Fungi, slimes, or objectionable growths	Narrative	Visual	1/week	
Potential nuisance conditions	Narrative	Visual	1/week	
Foam	Narrative	Visual	1/week	

9. Currently RSW-002D, which is defined in WDR Order R5-2008-0111 as within 500 feet downstream of the discharge to Gas Canyon Creek, is not accessible for sampling because of the steep side slopes, cliffs and unconsolidated material left behind from hydraulic mining. The Discharger has attempted to obtain permission from private property owners to travel several miles over their land to get downstream samples; however, one property owner agreed to allow access but the other property owner has not responded to two letters. If access was allowed the sampling location would be approximately 1,500 feet downstream of the discharge and the hiking required to collect the sample would prevent the Discharger from meeting certain sampling holding times. Additionally weather conditions, snow and ice in particular also make monitoring efforts extremely dangerous. Furthermore, surface flow in Gas Canyon Creek usually occurs during storm runoff periods, otherwise stream flow is predominantly subsurface. For the aforementioned reasons and because the new treatment system produces high quality effluent with ultra filtration and UV disinfection, receiving water fecal coliform monitoring is no longer required. Also, weekly receiving water monitoring requirements are reduced from weekly to monthly when surface flow is present in Gas Canyon Creek.
10. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.) ("CEQA") pursuant to Water

Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.)

11. On 2 February 2012, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider the Amendment to Order R5-2008-0111 to reduce particular minimum monitoring and sampling frequencies.

**IT IS HEREBY ORDERED THAT:**

1. The minimum sampling frequencies for total coliform, aluminum, mercury and methyl mercury are amended in Order R5-2008-0111 Appendix E, Monitoring and Reporting Program, section IV.A.1., Table E-3 Effluent Monitoring, as shown in underline/strikeout format below:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Meter	Continuous	1
Total Coliform	MPN/100 mL	Grab	<u>23/Week</u>	1
Aluminum <sup>7</sup>	µg/L	Grab	<u>1/Quarter</u> <del>Month</del>	1
Mercury, Total Recoverable	µg/L	Grab	<u>Annually</u> <del>1/Month</del>	1
	lbs/day	Calculated <sup>9</sup>	<u>Annually</u> <del>1/Month</del>	1
Methyl Mercury	µg/L	<del>Grab</del>	<u>Not Required</u> <del>1/Month</del>	4

2. The minimum sampling frequency in Order R5-2008-0111 Appendix E, Monitoring and Reporting Program, section VIII.A., Table E-6 Receiving Water Monitoring Requirements are amended as shown in underline/strikeout format below:

**Table E-6. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/ <u>Month</u> week	1
	% Saturation	Grab	1/ <u>Month</u> week	1
pH	Standard Units	Grab	1/ <u>Month</u> week	1
Temperature	°F(°C)	Grab	1/ <u>Month</u> week	1
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/ <u>Month</u> week	1
Turbidity	NTU	Grab	1/ <u>Month</u> week	1
Fecal coliform	MPN/100 ml	<del>Grab</del>	<del>1/<u>Month</u>week</del> Not Required Monthly	
Flow	Narrative	Visual	1/ <u>Month</u> week	
Floating or suspended matter	Narrative	Visual	1/ <u>Month</u> week	
Discoloration	Narrative	Visual	1/ <u>Month</u> week	
Bottom Deposits	Narrative	Visual	1/ <u>Month</u> week	
Aquatic Life	Narrative	Visual	1/ <u>Month</u> week	
Visible films, sheens	Narrative	Visual	1/ <u>Month</u> week	
Fungi, slimes, or objectionable growths	Narrative	Visual	1/ <u>Month</u> week	
Potential nuisance conditions	Narrative	Visual	1/ <u>Month</u> week	
Foam	Narrative	Visual	1/ <u>Month</u> week	

3. Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and the California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

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 2 February 2012.

*Original signed by*

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PAMELA C. CREEDON, Executive Officer