

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2008-XXX
AMENDING WASTE DISCHARGE REQUIREMENTS
ORDER NO. R5-2008-0006
NPDES NO. CA0082660

CITY OF BRENTWOOD
WASTEWATER TREATMENT PLANT
CONTRA COSTA COUNTY

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

1. On 25 January 2008, the Regional Water Board adopted Waste Discharge Requirements Order No. R5-2008-0006, prescribing waste discharge requirements for the City of Brentwood Wastewater Treatment Plant, Contra Costa County. For the purposes of this Resolution, the City of Brentwood is hereafter referred to as "Discharger" and the Brentwood Wastewater Treatment Plant is hereafter referred to as "Facility."
2. The Discharger owns and operates a publicly owned wastewater treatment plant. Treated municipal wastewater is discharge to Marsh Creek a water of the United States, within the Sacramento-San Joaquin Delta. The Facility is designed to discharge up to 5.0 mgd (average dry weather flow) of tertiary treated wastewater.
3. Order No. R5-2008-0006 includes final effluent limitations for total recoverable copper, but fails to include an effluent monitoring requirement to determine compliance with the effluent limitation. This Resolution adds monthly effluent monitoring for total recoverable copper.
4. Order No. R5-2008-0006 includes an interim effluent limitation for total mercury, which was carried over from previous Order No. 5-00-171. However, Order No. R5-2008-0006 incorrectly applies the interim effluent limit as a total monthly mass loading instead of a total annual mass loading as was applied in the previous Order. The rationale for the interim limitation is discussed in the Fact Sheet of Order No. R5-2008-0006, but misapplied in the Limitations and Discharge Specifications. This Resolution changes the interim effluent limitation for total mercury to be consistent with the Fact Sheet and the previous Order.
5. Order No. R5-2008-0006 requires that total mercury and methyl mercury effluent monitoring and Title 22 Metals pond influent monitoring, which includes total mercury, to be collected as 24-hour composite samples. However, the Discharger is required to use clean sampling techniques when monitoring for mercury due to contamination issues and due to the very low detection levels of the testing methods. To properly employ clean techniques, it is necessary to use grab samples. Therefore, this Resolution changes the required sample type for total

mercury and methyl mercury effluent monitoring and Title 22 Metals pond influent monitoring to grab samples.

6. 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 CWC section 15321 (a)(2), Title 14, of the California Code of Regulations.
7. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to amend waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
8. Any person adversely affected by this action of the 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 on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED THAT:

Waste Discharge Requirements Order No. R5-2008-0006 (NPDES No. CA0082660) is amended solely to modify the interim effluent limit for mercury to reflect the correct averaging period, to add an effluent copper monitoring requirement, and to modify the total mercury and methyl mercury monitoring to require grab samples. Order No. R5-2008-0006 shall be amended as follows:

1. Limitations and Discharge Specifications, Interim Effluent Limitations IV.A.2.d. is amended as follows:
 - d. **Effective immediately**, the total ~~monthly~~ annual mass discharge of total mercury shall not exceed 0.083 pounds.
2. The Monitoring and Reporting Program (Attachment E), Effluent Monitoring Requirements IV.A.1. (Table E-3) is amended as follows:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuous	¹
Total Residual Chlorine ²	mg/L	Meter	Continuous	¹
Turbidity	NTU	Meter	Continuous	¹

AMENDMENT OF WASTE DISCHARGE REQUIREMENTS
 RESOLUTION NO. R5-2008-XXXX
 CITY OF BRENTWOOD
 BRENTWOOD WASTEWATER TREATMENT PLANT
 CONTRA COSTA COUNTY

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite ³	5 days/week	1
	% removal	Calculated		
Dissolved Oxygen	mg/L	Grab	1/day	1
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/day	1
pH	Standard Units	Grab	1/day	1
Temperature ⁴	°F	Grab	1/day	1
Total Coliform Organisms	MPN/100 mL	Grab	5 days/week	1
Total Suspended Solids	mg/L	24-hr Composite ³	5 days/week	1
	% removal	Calculated		
Ammonia Nitrogen, Total (as N) ⁵	mg/L	Grab	1/week	1
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/week	1
Aluminum, Total Recoverable	µg/L	24-hr Composite ³	1/month	1
Chloride	mg/L	24-hr Composite ³	1/month	1
Copper, Total Recoverable	µg/L	24-hr Composite ³	1/month	1
Iron, Total Recoverable	µg/L	Grab	1/month	1
Mercury, Total Recoverable ^{6,7}	µg/L	24-hr Composite ³ Grab	1/month	11
	lbs/day	Calculated		
Mercury, Methyl	µg/L	24-hr Composite ³ Grab	1/month	11
Selenium, Total Recoverable ^{6,7}	µg/L	24-hr Composite ³	1/month	1
Settleable Solids	mL/L	Grab	1/month	1
Sulfate	mg/L	24-hr Composite ³	1/month	1
Oil and Grease	mg/L	Grab	1/month	1
Total Dissolved Solids	mg/L	24-hr Composite ³	1/month	1
Persistent Chlorinated Hydrocarbon Pesticides ^{6,8}	µg/L	24-hr Composite ³	1/quarter	1
Standard Minerals ⁹	mg/L	24-hr Composite ³	1/year	1
Priority Pollutants ⁶	µg/L	Grab	¹⁰	1

¹ As specified in 40 CFR Part 136.

² Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.011 mg/L.

³ 24-hour flow proportioned composite.

⁴ Effluent temperature monitoring shall be at the Outfall location.

⁵ Concurrent with whole effluent toxicity monitoring.

⁶ For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML.

- For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.
- 7 Report as total recoverable.
 - 8 Persistent Chlorinated Hydrocarbon Pesticides include: alpha BHC, aldrin, alpha endosulfan, beta endosulfan, beta BHC, delta BHC, gamma BHC (lindane), 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, dieldrin, endrin, endrin aldehyde, endosulfan sulfate, heptachlor, heptachlor epoxide, and toxaphene.
 - 9 Standard minerals shall include the following: calcium, magnesium, potassium, manganese, phosphorus, sodium, total alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).
 - 10 Priority pollutants shall be sampled quarterly during the third year following the date of permit adoption and shall be conducted concurrently with upstream receiving water monitoring for hardness (as CaCO₃) and pH.
 - 11 Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a method detection limit of 0.02 ng/l for methylmercury and 0.2 ng/l for total mercury.
3. The Monitoring and Reporting Program (Attachment E), Land Discharge Monitoring Requirements VI.A.1. (Table E-5) is amended as follows:

Table E-5. Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow ⁴	mgd	Meter	Continuous	1
Biochemical Oxygen Demand (5-day @20 °C)	mg/L	24-hr Composite	1/month	1
Settleable Solids	mL/L	Grab	1/month	1
Electrical Conductivity @25°C	µmhos/cm	24-hr Composite	1/month	1
pH	Standard Units	Grab	1/month	1
Total Dissolved Solids	mg/L	24-hr Composite	1/month	1
Title 22 Metals ²	mg/L	24-hr Composite Grab	1/year	1
Standard Minerals ³	mg/L	24-hr Composite	1/year	1

¹ As specified in 40 CFR Part 136.

² Title 22 metals shall include the analyses of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc.

³ Standard Minerals shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total alkalinity (including alkalinity series), and hardness.

⁴ Flow to each pond (i.e. Disposal Ponds 006, 007, and 008) shall be measured and reported separately.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on <DATE>.

 PAMELA C. CREEDON, Executive Officer