

**Regional Water Quality Control Board  
Central Valley Region**

**Board Meeting – 26/27/28 May 2010**

**Response to Written Comments on  
Tentative Waste Discharge Requirements for**

**City of Redding,  
Clear Creek Wastewater Treatment Plant**

**5 May 2010**

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At a public hearing scheduled for 26/27/28 May 2010, the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0079731) (Tentative Order) for the City of Redding, Clear Creek Wastewater Treatment Plant. This document contains responses to written comments received from interested parties in response to the Tentative Order. Written comments from interested parties were required to be received by the Regional Water Board by 25 April 2010 in order to receive full consideration. Comments were received prior to the deadline from:

1. City of Redding (received 23 April 2010)

Written comments from the above interested parties are summarized below, followed by the response of the Regional Water Board staff.

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**CITY OF REDDING (DISCHARGER) COMMENTS**

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**City of Redding (Discharger) – COMMENT #1:**

**The facility is incorrectly characterized as a tertiary treatment facility throughout the Tentative Order.**

**RESPONSE:**

The Tentative Order uses the term refers to the treatment capabilities of the wastewater treatment plant as “tertiary” in several places. The use of the term “tertiary” is not intended to imply that Title 22 “Disinfected Tertiary Recycled Water” is produced. The term “tertiary” simply refers to the wastewater treatment plants capability to filter the secondary-treated wastewater. Use of the filters is treatment beyond secondary.

Regional Water Board staff proposes to add a clear definition for “tertiary treatment” in the definitions section of the Tentative Order.

**City of Redding (Discharger) – COMMENT #2:**

**Planned and ongoing modifications to the facility are incorrectly characterized.**

**RESPONSE:**

Regional Water Board staff proposes to add clarifications to the Tentative Order based on the Discharger's comments. Specifically, language discussing the Discharger's plans to expand filter capacity, and improve solids treatment, processing and dewatering capabilities, is proposed to be added to the Tentative Order. [Note: This change was made on 7 April 2010 and posted to the Regional Water Board's Tentative Orders internet page.]

**City of Redding (Discharger) – COMMENT #3:**

**The listing of individuals with signatory authority (page F-3) is incomplete.**

**RESPONSE:**

The Discharger has requested that Troy Mitchell, and John Szychulda be added to the list of individuals with signatory authority. Regional Water Board staff proposes to add these individuals as requested. [Note: This change was made on 7 April 2010 and posted to the Regional Water Board's Tentative Orders internet page.]

**City of Redding (Discharger) – COMMENT #4:**

**The dilution credits granted in the Tentative Order are more stringent than in the previous permit and the City may not be able to comply.**

**RESPONSE:**

The dilution credits granted in the Tentative Order, and the resulting effluent limitations are based on the concentrations of pollutants in the wastewater treatment plant effluent. Specifically, the dilution credits were set at levels that resulted in effluent limitations that the wastewater treatment plant is capable of meeting, based on effluent monitoring results. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy, or SIP) requires that a mixing zone, and therefore a dilution credit, be as small as practicable. Granting a dilution credit larger than is needed by the Discharger, would not comply with the SIP. The dilution credits granted in the Tentative Order are not required to be the same as in the previous permit. Adequate justification has been provided in the Tentative Order for the proposed dilution credits.

Regional Water Board staff has reconsidered the wastewater treatment plant effluent concentrations for dichlorobromomethane and believe that the Discharger may not be able to comply with the proposed effluent limitations for dichlorobromomethane (which are based on the proposed dilution credit). Therefore, Regional Water Board staff proposes to increase the dilution credit for dichlorobromomethane from 12 to 30. This change will result in effluent limitations for dichlorobromomethane that are appropriate, and that can be met by the Discharger. [Note: This change was made on 7 April 2010 and posted to the Regional Water Board's Tentative Orders internet page.]

**City of Redding (Discharger) – COMMENT #5:**

**The justifications provided for the size of the mixing zones are inappropriate.**

**RESPONSE:**

Regional Water Board staff applied the results of the Discharger's 2005 mixing zone/dilution study, and supplemental information from 2008 to determine dilution ratios relative to distances downstream of the new diffuser. The Proposed Order requires a follow-up study to further evaluate the new mixing zone. The Tentative Order describes the edges of the mixing zones as required by the SIP. The justifications provided are adequate and appropriate.

Regional Water Board staff does not propose changes to the Tentative Order for this issue.

**City of Redding (Discharger) – COMMENT #6:**

**The requirement to sample at the edge of the mixing zones should be removed.**

**RESPONSE:**

The Tentative Order grants mixing zones for specific pollutants. The requirement to sample at the edge of the mixing zones is intended to document that water quality criteria/objectives for these pollutants are being met at the edges of the mixing zones, as expected. The sampling results will be used for study purposes only, and will not be used to determine if the Discharger is in compliance with effluent limitations. The Tentative Order does not contain any limits or prohibitions related to the required sampling at the edge of the mixing zone.

Regional Water Board staff does not propose changes to the Tentative Order for this issue.

**City of Redding (Discharger) – COMMENT #7:**

**The Discharger may be unable to comply with the proposed pH effluent limits.**

**RESPONSE:**

The Basin Plan contains a water quality objective that requires the pH of the receiving water to remain within the range of 6.5 to 8.5. The Tentative Order contains an effluent limit for pH of 6.5 to 8.5. The pH of the discharge averages approximately 6.7, but may have short excursions below 6.5, as low as 6.0. Therefore the Discharger may be unable to comply without making facility modifications such as chemical pH adjustment. Monitoring results from January 2006 through December 2008 show a pH range in the receiving water downstream of the discharge of 6.58 to 7.87. Therefore it does not appear that the discharge has caused the receiving water to exceed the Basin Plan objective for pH.

Regional Water Board staff proposes to change the effluent limit pH range to 6.0 to 8.5. [Note: This change was made on 7 April 2010 and posted to the Regional Water Board's Tentative Orders internet page.]

**City of Redding (Discharger) – COMMENT #8:**

**The Discharger may be unable to comply with the proposed coliform bacteria effluent limits.**

**RESPONSE:**

The Tentative Order contains effluent limits for total coliform organisms that are intended to ensure the Basin Plan's objectives for pathogens are met, and that consider guidance provided by the California Department of Public Health (DPH) for water bodies with identified beneficial uses of irrigation or contact recreation. Beneficial uses designated for the Sacramento River in the vicinity of the discharge include (in part) agricultural irrigation, and body contact water recreation. The previous permit's effluent limit of 23 MPN/100mL as a monthly median is not consistent with the DPH guidance that the limit be evaluated as a 7-day median. The DPH guidance does suggest that the magnitude of the limit could be relaxed in situations where the effluent receives greater than a 20:1 dilution; however the Discharger's monitoring record shows that the Facility should be able to comply, and the Discharger has not provided sufficient evidence that the Facility cannot comply if the change from a 30-day median to a 7-day median is made. At this time, Regional Water Board staff does not have sufficient evidence to justify relaxing the magnitude of the limit which could constitute backsliding in violation of 40 CFR 122.44.

Staff does not propose any changes to the effluent limits for total coliform bacteria contained in the tentative Order.

**City of Redding (Discharger) – COMMENT #9:**

**The additional monitoring required by the Tentative Order is not justified or appropriate.**

**RESPONSE:**

Section VI of the Fact Sheet provides a rationale for the monitoring and reporting required by the Tentative Order. Factors that influence the frequency of monitoring, and the constituents to be monitored, include (in part) the design flow of the Facility, the beneficial uses of the receiving water, the results of the reasonable potential analysis, the compliance history, and the applicability of a pretreatment program. In addition, the monitoring and reporting programs for the following wastewater treatment plants were considered for comparison purposes.

Facility Name	Year Adopted	Design Flow	Receiving Water	Pretreatment Program
City of Redding – Stillwater WWTP	2007	4.0	Sacramento River	Yes
Yuba City WWTP	R5-2007-0134	10.8	Feather River	Yes

	(amended January 2010)			
Turlock WWTP	R5-2010-0002	20	San Joaquin River	Yes
City of Redding - Clear Creek WWTP	2003, Proposed Renewal	8.8	Sacramento River	Yes

Except as discussed below, the Fact Sheet adequately justifies the need for the monitoring under section 13267. However, the monitoring is also required pursuant to Water Code section 13383, which does not mention monitoring or reporting costs.

Upon further consideration, Regional Water Board staff proposes to change the effluent monitoring frequency for priority pollutants in year 4 of the permit to annual rather than quarterly. This change acknowledges the monitoring required for the pretreatment program sampling.

Regional Water Board staff also proposes to clarify the sources and locations for biosolids monitoring.

Regional Water Board staff also proposes to reduce the frequency of biosolids monitoring from quarterly to annually to better reflect the Discharger's biosolids production and frequency of drying. If the Discharger's biosolids disposal practices changes in the future, the monitoring frequency may be changed by the Executive Officer, as appropriate.

Regional Water Board staff also agrees to modify the due date for the quarterly pretreatment report, as requested by the Discharger.

Regional Water Board staff does not propose to make any other changes to the Tentative Order for these issues.

**City of Redding (Discharger) – COMMENT #10:**

**The Chronic Whole Effluent Toxicity (WET) accelerated monitoring trigger should be increased.**

**RESPONSE:**

The Tentative Order contains a Chronic Whole Effluent Toxicity (WET) accelerated monitoring trigger of ">1 TUc" and contains a narrative effluent limit that requires that the discharge not cause chronic toxicity. Using a higher monitoring trigger has the same effect as granting a mixing zone. The Regional Water Board may allow a mixing zone for chronic toxicity, if the Discharger requests one and submits justification that granting it would be appropriate. The Discharger's comment constitutes a request for a mixing zone; however, the Discharger has not submitted a justification that allowing a chronic mixing zone would be appropriate. For example, the SIP requires that a mixing zone be as small as practicable, but there is no information in the record to determine how large a chronic toxicity mixing zone would need to be, or what the effect of allowing a chronic toxicity mixing zone would be. Information such as a full chronic WET dilution series could help identify the amount of dilution the effluent needs in order to not cause

chronic toxicity. This is an example of information that is not available for the Discharger's Facility, but is available for the SCOR wastewater treatment plant referred to in the Discharger's comments. Regional Water Board staff recommends that granting a dilution credit to allow chronic toxicity in the discharge could be inappropriate at this time, and may not protect the designated beneficial uses of the receiving water.

Regional Water Board staff does not propose changes to the Tentative Order for this issue.

**City of Redding (Discharger) – COMMENT #11:**

**The requirement for an annual Inflow and Infiltration Reduction Progress Report should be removed.**

**RESPONSE:**

The Tentative Order requires the Discharger to prepare and submit an annual Inflow and Infiltration (I/I) Reduction progress report. The Facility has a history of excessive I/I that impacts the Facility's ability to fully treat the wastewater flow entering the plant. In multiple cases, this excessive I/I has resulted in sanitary sewer overflows, and in overflows of untreated wastewater from the Facility itself. For example, during the winter of 2005/2006, 15 million gallons of undisinfected wastewater spilled from the Facility into the Sacramento River. The Discharger has implemented an I/I reduction program to address these problems. The required annual report would provide documentation to the Regional Water Board on the Discharger's efforts at reducing I/I, and the improvements achieved.

Regional Water Board staff does not propose changes to the Tentative Order for this issue.

**City of Redding (Discharger) – COMMENT #12:**

**The requirement to measure receiving water flow should allow the use of existing flow monitoring stations.**

**RESPONSE:**

Regional Water Board staff agrees that nearby, existing flow monitoring stations are appropriate for providing flow data for the receiving water. Staff proposes to modify the Proposed Order to allow the Discharger to propose, and the Executive Officer to approve the stations to be used for flow monitoring.

**City of Redding (Discharger) – COMMENT #13:**

**The requirement for a groundwater monitoring plan should be removed.**

**RESPONSE:**

The Facility has 12 ponds with a total area of approximately 93 acres, located in an area of shallow groundwater adjacent to the Sacramento River. The total volume of the ponds is approximately 183 million gallons. The ponds consist of four types/uses: flow equalization; facultative sludge lagoons; sludge drying; and temporary wet weather storage. The Tentative Order requires a groundwater monitoring plan in order to identify and quantify any groundwater impacts from the Facility's use of the ponds. The Title 27 exemption finding in the proposed Order has been revised as follows. (See, State Water Board Order WQ 2009-0005 (City of Lodi)):

1. ~~The following discharges are to authorized herein and the treatment and or storage facilities associated with the discharge of treated~~ a municipal wastewater treatment plant and, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27, California Code of Regulations (CCR), section 20005 *et seq.* (hereafter Title 27). The exemption, pursuant to the unconditional sewage exemption in Title 27 CCR section 20090(a), is based on the following:
  - ~~a. The waste consists primarily of domestic sewage and treated effluent;~~
  - ~~b. The waste discharge requirements are consistent with water quality objectives; and~~
  - ~~c. The treatment and storage facilities described herein are associated with a municipal wastewater treatment plant.~~

Regional Water Board staff does not propose any other changes to the Tentative Order for this issue.