



# CVCWA

## Central Valley Clean Water Association

*Representing Over Fifty Wastewater Agencies*

---

MICHAEL RIDDELL – Chair, City of Riverbank  
CASEY WICHERT – Secretary, City of Brentwood

TERRIE MITCHELL – Vice Chair, Sacramento Regional CSD  
TONY PIRONDINI – Treasurer, City of Vacaville

---

April 25, 2014

**Via Electronic Mail Only**

Ms. Kari Holmes  
Water Resource Control Engineer  
Regional Water Quality Control Board,  
Central Valley Region  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670  
[kari.holmes@waterboards.ca.gov](mailto:kari.holmes@waterboards.ca.gov)

RE: Comments on the Tentative Waste Discharge Requirements Order R5-2014-XXXX,  
City of Stockton Regional Wastewater Control Facility, San Joaquin County

Dear Ms. Holmes:

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to comment on the tentative Waste Discharge Requirements for the City of Stockton Regional Wastewater Control Facility (Tentative Order). CVCWA is a non-profit association of public agencies located within the Central Valley region that provide wastewater collection, treatment, and water recycling services to millions of Central Valley residents and businesses. We approach these matters with the perspective of balancing environmental and economic interests consistent with state and federal law. In this letter, we provide the following comments regarding the Central Valley Regional Water Quality Control Board's (Regional Board) approach to regulating nitrate plus nitrite, including (1) the implementation of the narrative objectives in the reasonable potential analysis; (2) the rationale for a water quality –based effluent limitation using “technical capability” or a “zone of reasonableness”; (3) the mixing zone analysis; and (4) certain milestones in the compliance schedule. We also comment on the interim mercury limit, language in the Fact Sheet related to collection systems, and the use of the new 2013 National Ambient Water Quality Criteria for ammonia.

## I. Reasonable Potential Analysis for Nitrate and Nitrite

The Tentative Order includes a proposed average monthly water quality-based effluent limitation for nitrate plus nitrite (as N) of 10 micrograms per liter (mg/L). The Regional Board proposes this average monthly limit because “nitrate in the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the” Primary Maximum Contaminant Level (MCL), which is used to implement the narrative chemical constituents objective, and because the discharge also “has reasonable potential to cause or contribute to an exceedance of the Basin Plan’s narrative water quality objectives for biostimulatory substances and taste and odors.”<sup>1</sup> CVCWA has serious concerns regarding the implementation of these narrative objectives in the Tentative Order.

To interpret the chemical constituent objective for the protection of the municipal supply (MUN) beneficial use, the Tentative Order correctly refers to the primary MCL of 10 mg/L for nitrate plus nitrite. Based on the maximum effluent concentration observed during the prior permit term, the Tentative Order finds that nitrate in the discharge has reasonable potential to exceed the primary MCL.<sup>2</sup> This analysis is consistent with federal regulations. Specifically, where the permitting agency finds there is reasonable potential to exceed a narrative objective, the permitting agency must establish effluent limits using a calculated and demonstrably protective water quality criterion; Clean Water Act section 304(a) recommended criteria; an indicator parameter; or a state policy interpreting a narrative water quality criterion supplemented with other information.<sup>3</sup> The *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan) contains such a policy: the *Policy for Application of Water Quality Objectives* (Policy). The Policy in general provides that where compliance with a narrative objective is required, the Regional Board will adopt numerical limitations, on a case-by-case basis, which will implement the narrative objective.<sup>4</sup>

However, after correctly identifying a numeric criterion to interpret the chemical constituent objective for protection of MUN, i.e., the Primary MCL, the Tentative Order fails to identify any numeric criterion to implement the narrative biostimulatory substances objective

---

<sup>1</sup> Tentative Order at p. F-57.

<sup>2</sup> *Ibid.*

<sup>3</sup> 40 C.F.R. § 122.44(d)(1)(vi); see also Tentative Order at p. F-13.

<sup>4</sup> Basin Plan at p. IV-17.00. The Basin Plan states in full: “To evaluate compliance with the narrative water quality objectives, the Regional Water Board considers, on a case-by-case basis, direct evidence of beneficial use impacts, all material and relevant information submitted by the discharger and other interested parties, and **relevant numerical criteria** and guidelines developed and/or published by other agencies and organizations . . . In considering such criteria, the Board evaluates whether the **specific numerical criteria**, which are available through these sources and through other information supplied to the Board, are relevant and appropriate to the situation at hand and, therefore, should be used in determining compliance with the narrative objective. (*Ibid.*, emphasis added.)

and the narrative taste and odor objective. Rather, the Tentative Order includes generalized and unsubstantiated comments with regard to nutrients in the Delta, and then adopts an effluent limit of 10 mg/L “based on the technical capability of POTWs.”<sup>5</sup> This analysis conflates the numeric criterion and the narrative objectives that the Regional Board purports to be implementing. To interpret the narrative biostimulatory substances objective and the narrative taste and odor objective, the Regional Board must identify a relevant numeric criterion and other information. Further, this “other information” must be substantiated by evidence in the record.<sup>6</sup> The Tentative Order does not include either part necessary for the interpretation of these two narrative objectives. Thus, this reasonable potential analysis and adoption of a water quality-based effluent limit for nitrate and nitrite, as it relates to the biostimulatory substances and taste and odor objectives, is inconsistent with the applicable law.

## II. Effluent Limits Based On “Technical Capability” and “Reasonableness”

As described above, after finding reasonable potential to exceed a narrative objective, the Regional Board must establish a water quality-based effluent limitation consistent with federal regulations and the provisions of the Basin Plan. To establish such a limit, the Regional Board may use the following sources according to the federal regulation: a calculated numeric water quality criterion that has been demonstrated to be protective of the beneficial use; a state policy or regulation interpreting the narrative objective supplemented with other information, such as the United States Environmental Protection Agency’s (USEPA) Water Quality Standards Handbook, risk assessment or exposure data, information from the Food and Drug Administration, and current USEPA criteria documents; section 304(a) recommended criteria, supplemented where necessary by other relevant information; or an indicator parameter under certain conditions.<sup>7</sup> Under the Policy in the Basin Plan, the Regional Board may consult: evidence of beneficial use impacts, relevant information submitted by the discharger, and relevant numeric criteria and guidelines published by various agencies.<sup>8</sup> In this extensive list of available sources of information, nowhere is “technical capability” listed. A limit based on “technical capability” is not a water quality-based effluent limit derived in a manner consistent with applicable laws.<sup>9</sup>

---

<sup>5</sup> Tentative Order at p. F-58.

<sup>6</sup> See Code Civ. Proc., § 1094.5; *Asociacion de Gente Unide Por el Agua v. Central Valley Regional Water Quality Control Bd.* (2012) 210 Cal.App.4th 1255, 1268.

<sup>7</sup> 40 C.F.R. § 122.44(d)(1)(vi); see also Tentative Order at p. F-13.

<sup>8</sup> Basin Plan at p. IV-17.00.

<sup>9</sup> A 10 mg/L limit for nitrate plus nitrite “based on technical capability” is not a technology-based effluent limit under federal law. (See 40 C.F.R. § 133.102.) Because this limit is neither technology-based nor water-quality based, it must be adopted consistent with Water Code section 13241.

In addition to the problems with a “technical capability” rationale, CVCWA is also concerned with setting effluent limits based on a “reasonableness” justification. The Tentative Order states that an average monthly effluent limitation of 10 mg/L for nitrate plus nitrite “is appropriate and within the zone of reasonableness.”<sup>10</sup> The “zone of reasonableness” is not an independent ground for establishing water quality-based effluent limitations, and the case law cited in the Tentative Order does not support such a conclusion. Rather, in the *Upper Blackstone* case, USEPA followed the applicable regulations to develop a water quality-based effluent limit.<sup>11</sup> Specifically, USEPA found that the discharge of nitrogen and phosphorous had the reasonable potential to cause an excursion of the state water quality standards and translated the narrative objectives into numeric limits according to federal regulations and using material information.<sup>12</sup> The court found this limit, established under the proper procedures, to be reasonable.<sup>13</sup> The court did not create a process to ignore applicable regulations based on the subjective evaluation that a limit is reasonable and can be readily achieved.

### III. Mixing Zone Analysis for Nitrate plus Nitrite

The City of Stockton (City) requested a mixing zone for nitrate plus nitrate for compliance with the Primary MCL, which is used to interpret the chemical constituents narrative objective for protection of the MUN beneficial use.<sup>14</sup> However, the City’s request for a mixing zone is denied in the Tentative Order. This denial appears to be based on possible (yet undefined) impacts on aquatic life beneficial uses.<sup>15</sup> The State Water Resources Control Board (State Board) found this line of reasoning to be improper in its Order WQ 2012-0013:

In this case, the water quality objective for which a mixing zone was denied is based on human health. However, the reasons for denying the mixing zone were related to aquatic and ecological impacts. This does not comport with what the Basin Plan and [USEPA’s Technical Support Document] specify in allowing or denying mixing zones . . .

The decision to grant or deny a mixing zone for a pollutant should, in each analytical step, consider the use that is being protected by the applicable water quality objective . . . [W]ith respect to nitrate, the use was MUN beneficial use,

---

<sup>10</sup> Tentative Order at p. 58.

<sup>11</sup> See *Upper Blackstone Water Pollution Abatement Dist. v. U.S. Env’tl. Prot. Agency* (1st Cir. 2012) 690 F.3d 9, 18.

<sup>12</sup> *Ibid.*

<sup>13</sup> *Id.* at pp. 26-29.

<sup>14</sup> Tentative Order at p. F-22.

<sup>15</sup> *Id.* at pp. F-22 to F-23 [“The Central Valley Water Board is concerned with the effect of the discharge of nutrients, including nitrate and nitrite, on biologically sensitive aquatic resources and critical habitats . . .”].

the water quality objective was to protect human health, but the mixing zone was denied based on information that nitrate discharges have biostimulatory effects unrelated to drinking water protection through implementation of the Primary MCL. The last analytical step for nitrates uncoupled the use to be protected from the objective providing the protection.<sup>16</sup>

The denial of the requested mixing zone is not well explained. To the extent that the denial is based on the impacts to the MUN use, it is improper under the State Board's Order WQ 2012-0013. CVCWA identifies the problems with the Tentative Order's interpretation of the narrative biostimulatory impacts objective and the narrative taste and odors objective above in Section I. A denial of the City's request for a mixing zone based on implementation of these objectives to protect aquatic life uses would be similarly flawed.

The Tentative Order offers generalized statements such as "increased nutrient loads can create excessive algal growth in the Delta" and "increased nutrient loading contributes to the impairment of beneficial uses" to justify denying the mixing zone.<sup>17</sup> Based on principles of administrative law, however, these findings are clearly inadequate. The Regional Board's order must be supported by the findings, and the finding must be supported by the evidence in the record.<sup>18</sup> To be adequate, an agency's findings must link the raw evidence with the ultimate decision.<sup>19</sup> The Regional Board must discuss the evidence used to support a finding so that a court does not have to scour the administrative record to determine whether "some combination of credible evidentiary items which supported some line of factual and legal conclusions supported the ultimate order or decision of the agency."<sup>20</sup>

Here, the Tentative Order includes general statements on the adverse effects of nutrients and nutrient loading in the Delta with a limited reference to one study to support the statements. The evidence before the Regional Board, including information supplied by the City in its technical memoranda, does not support these "findings." Additionally, the "findings" do not support the Regional Board's decision to deny a mixing zone. The general discussion of nutrient effects in the Delta is not related to the area of the proposed mixing zone. The Tentative Order does not explain whether the nutrient effects in the Delta exist near the proposed mixing zone, whether there is increased algal growth in the proposed mixing zone, or

---

<sup>16</sup> *In the Matter of Own Motion Review for Waste Discharge Requirements Order No. R5-2010-0114 [NPDES No. CA0077682] for the Sacramento Regional Wastewater Treatment Plant Issued by the California Regional Water Quality Control Board, Central Valley Region, Order WQ 2012-0013 (Dec. 4, 2012) at pp. 28-29.*

<sup>17</sup> Tentative Order at p. F-23.

<sup>18</sup> Code Civ. Proc., § 1094.5(b).

<sup>19</sup> *Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515.

<sup>20</sup> *Id.* at p. 516.

whether the impacts from algal growth are documented in the proposed mixing zone. The Tentative Order simply states that “[t]hese impacts are occurring.” The Regional Board’s denial of the requested mixing zone is deficient under well-established tenets of administrative law.

CVCWA respectfully requests that the Regional Board reconsider the City’s mixing zone study and other information supplied by the City, and revise the Tentative Order to include the requested seasonal effluent limitations, which are fully protective of the beneficial uses.

#### **IV. Compliance Schedule for Nitrate plus Nitrite**

The compliance schedule for nitrate plus nitrite in section VI.C.7.c includes milestones that encumber the City and deadlines that do not account for contingencies likely to occur during project development or legal requirements that apply to a municipality. For instance, the requirement of “Approval of Project by City Board” is unnecessary and burdens the City Council’s decisionmaking process. CVCWA requests that this milestone be removed. Similarly, the requirements to submit a “Rate Analysis Report” and “Complete Financing Plan” are onerous and inappropriate. At most, it might be appropriate for the City to develop a financing plan in general. However, requiring a rate analysis report as a compliance schedule milestone puts the Regional Board in a position of micro-managing the City’s efforts with respect to meeting the final water quality-based effluent limit. CVCWA respectfully requests that the Regional Board remove the “Rate Analysis Report” requirement entirely. CVCWA also requests that the Regional Board delay the “Financing Plan” deadline to allow the City additional flexibility to determine financing options.

#### **V. Calculation of Interim Mercury Limit**

CVCWA remains concerned with the Regional Board’s approach to calculating interim effluent limitations for total mercury. In the Tentative Order, it appears that the Regional Board is using actual flow data rather than permitted flow to calculate the mass limitation.<sup>21</sup> In the City’s case, this difference is significant as the City is currently discharging at approximately half of its permitted flow of 55 million gallons per day. As flows increase up to the permitted level, the City risks noncompliance with a performance-based interim limit based on historical flows.

Furthermore, the Tentative Order uses total mercury effluent data collected from January 2009 to December 2012. Once again, in the City’s case, using this data is inappropriate as the City made significant plant upgrades in 2006 prior to the adoption of the methylmercury Basin Plan amendment. In the Staff Report, Regional Board staff agreed with the dischargers’ concern that their allocations would be reduced because of reasonable control actions, unfairly

---

<sup>21</sup> Tentative Order at pp. F-78 to F-79.

penalizing them for implementation of control actions during Phase 1. Staff recommended that the Basin Plan amendments include language that “interim limits established during Phase 1 and allocations will not be reduced as a result of early actions conducted to reduce inorganic mercury and/or methylmercury.”<sup>22</sup> Staff also acknowledged explicitly the effect of the City’s upgrades to its mercury levels in the Staff Report for the methylmercury TMDL.<sup>23</sup>

Despite these assurances at the time the TMDL and the Basin Plan amendment were adopted, the City is now being penalized for its 2006 upgrades in the Tentative Order. CVCWA respectfully requests that the interim total mercury limit be recalculated using permitted flow and pre-upgrade effluent data.

## **VI. Collection System**

The discussion of the collection system in the Fact Sheet is not consistent with the Permit findings. Section VI.C.5.c of the Tentative Order states that the collection system is regulated under the State Board’s Waste Discharge Requirements for Sanitary Sewer Systems, WQO 2006-003-DWQ, adopted on May 2, 2006.<sup>24</sup> The Fact Sheet, however, suggests that the collection system is subject to the permit.<sup>25</sup> This appears to be in error based on the Regional Board’s practice of deferring to the requirements for sanitary sewer systems under the State Board order. Accordingly, CVCWA suggests the following revisions to page F-88 of the Fact Sheet:

- ii. The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (General Order) on May 2, 2006. The Monitoring and Reporting Requirements for the General Order were amended by Water Quality Order WQ 2008-0002-EXEC on February 20, 2008. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions. The Discharger has applied for and has been approved for coverage under Order 2006-0003-DWQ for operation of its wastewater collection system.

---

<sup>22</sup> Regional Board, Amendments to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins for the Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary; Staff Report (April 2010), p. 47.

<sup>23</sup> Regional Board, Sacramento-San Joaquin Delta TMDL for Methylmercury; Staff Report (April 2010), p. 100.

<sup>24</sup> Tentative Order at p. 19.

<sup>25</sup> *Id.* at p. F-88.

~~Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section VI.C.5. For instance, the 24-hour reporting requirements in this Order are not included in the General Order. The Discharger must comply with both the General Order and this Order. The Discharger and public agencies that are discharging wastewater into the facility were required to obtain enrollment for regulation under the General Order by December 1, 2006.~~

## **VII. 2013 National Ambient Water Quality Criteria for Ammonia**

The Tentative Order identifies the applicable water quality objective as being the 2013 National Ambient Water Quality Criteria with mussels present.<sup>26</sup> This determination appears to be made based on one report prepared by The Nature Conservancy for a survey conducted in 2008-2009. According to this one survey, mussels were historically present three miles downstream of the City's point of discharge. Recently, the Regional Board issued most Central Valley NPDES permittees an order under Water Code section 13267 (13267 Order), that requests information with respect to application of the 2013 National Ambient Water Quality Criteria. As explained in the order, due to limited information available with respect to the presence/absence of mussels in Central Valley waterways, the Regional Board is requiring Central Valley POTWs subject to NPDES permits the option of either conducting a study to evaluate the presence/absence of mussels, or assuming that mussels are present. For POTWs that select option 1, said agencies may conduct an individual study or participate in a group study.

As you know, CVCWA has been working actively with the Regional Board on this issue, and held a workshop this week in coordination with Regional Board staff to help assist Central Valley POTWs understand their options. Accordingly, CVCWA is committed to continuing those efforts with respect to this issue. CVCWA comments here on the fact that the options articulated in the 13267 Order have not been, to our understanding, offered to the City. Rather, the Regional Board presumes mussels present based on the one limited study referenced in the Tentative Order. To ensure that the City has the same opportunity as all other POTWs, CVCWA requests that the City be given the same option. In other words, the City should be allowed to conduct a study to collect additional information to determine if mussels are in fact present or absent, should the City desire to do so. In the meantime, the Tentative Order should include a reopener provision that would allow for revision of the permit should the City decide to conduct such studies, and should such studies find that mussels are not present in relationship to the discharge location for the City's facility. Accordingly, CVCWA recommends that the Tentative

---

<sup>26</sup> Tentative Order, p. F-48.



Order be revised to include a reopener provision, should the City decide to conduct a study in the future.

We appreciate your consideration of these comments. If you have any questions or if CVCWA can be of further assistance, please contact me at (530) 268-1338 or [eofficer@cvcwa.org](mailto:eofficer@cvcwa.org).

Sincerely,



Debbie Webster  
Executive Officer

cc (via email): Pamela Creedon, Central Valley Regional Water Quality Control Board