



Central Contra Costa Sanitary District

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HAND DELIVERED

December 29, 2006

Mr. Bruce Wolfe, Executive Officer
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612-1499

Dear Mr. Wolfe:

CENTRAL CONTRA COSTA SANITARY DISTRICT'S RESPONSE TO TENTATIVE ORDER NO. R2-2007-xxx, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. CA 0037648

Central Contra Costa Sanitary District (CCCSD) appreciates the opportunity to comment on the Tentative Order (T.O.) for reissuance of our National Pollutant Discharge Elimination System (NPDES) permit. Your staff has been available to understand our issues and concerns and have consistently responded in a professional manner. We also commend you and your staff for your diligent efforts to reissue our permit. We hope that our comments are constructive and will be carefully considered as the T.O. gets revised into an adopted permit.

CCCSD is committed to environmental stewardship and the obligation of complying with the requirements of the NPDES permit. We have a very respectable compliance record; achieving 100 percent compliance is one of four CCCSD strategic objectives. As such, we consider the issuance of new or revised permits as a commitment to ensure that our staff and resources are properly focused and that our ratepayers are receiving good value for their service charges.

Our comments on the T.O. fall into two categories: 1) major policy issues/technical issues, and 2) suggested changes to text (Enclosure 1). Our major policy/technical issues include:

- Final Effluent Limits for Copper
- Final Effluent Limits for Mercury
- Final Effluent Limits for Cyanide
- Final Effluent Limits for Dioxin

CCCSD has responded to the final limits for mercury, cyanide, and dioxin with a request and demonstration that it is infeasible to achieve immediate compliance with the proposed final limits. Compliance schedules have been determined by the Regional Water Quality Control Board (RWQCB) and included in the T.O. The copper final limits are continued from CCCSD's 2001 permit based upon your staff's interpretation of the anti-backsliding provisions.

FINAL LIMITS FOR COPPER

The T.O. retains the final effluent copper limits from CCCSD's 2001 NPDES permit. It is our understanding that these limits were retained based on the RWQCB's interpretation of the anti-backsliding provisions. CCCSD disagrees with the RWQCB's application of the anti-backsliding provisions.

At the time that the final limits were included in CCCSD's 2001 NPDES permit, copper was on the 303(d) list and the RWQCB did not have final information to support a water effects ratio for the San Francisco Bay north of the Dumbarton Bridge. In fact, the RWQCB was in the process of developing a site-specific water quality objective (SSO) for copper in the San Francisco Bay. The 2001 NPDES permit acknowledged the SSO and its potential to alter future effluent limitations for copper. The permit states, "These permit holders (including CCCSD) in conjunction with the Board (RWQCB) and through the San Francisco Estuary Institute are gathering data towards the delisting (of copper). In addition, the information gathered might lead to a site-specific objective for copper, which might alter the dischargers future effluent limitation for copper."

In December 2004, the RWQCB removed copper from the 303(d) list. The information gathered for the above-referenced copper SSO development effort led to the development of an applicable water effects ratio (WER) of 2.4, and the RWQCB subsequently used this WER for the San Francisco Bay in the delisting decision. Additionally, the technical work on the WER underlying the copper SSO has been completed, and the Regional Board is in the process of adopting the SSO as a revised water quality objective for San Francisco Bay through a Basin Plan amendment.

The water effect ratio value in the proposed SSO is 2.4. A CEQA scoping meeting on the copper SSO was held on December 7, 2006, and the adoption of the amendment by the Regional Board is scheduled to occur in 2007. Therefore, through the 303(d) delisting of copper and the proposed SSO for copper north of Dumbarton Bridge, it is clear that a WER of 2.4 is the correct value to use in the derivation of effluent limits.

The RWQCB should make the revisions in the proposed permit suggested by the 2001 NPDES permit language—revisions CCCSD was led to believe would occur. The final effluent limitations for copper should be 105 and 150 $\mu\text{g/L}$ monthly average and daily maximum, respectively, based on the use of the WER value of 2.4 and the translator values developed for San Pablo Bay in the Clean Estuary Partnership document titled *North of Dumbarton Bridge Copper and Nickel Development and Selection of Final Translators* (2005). The permit should state that, upon adoption and final approval by USEPA of the Basin Plan amendment for the copper SSO north of the Dumbarton Bridge, the final effluent limits will be adjusted accordingly to reflect the revised copper objectives.

Using the correct WER and translator values to calculate effluent limitations for copper would not violate the anti-backsliding rule. In *Own Motion Review of the Petition of Communities for a Better Environment and San Francisco Baykeeper and Clean South Bay*, State Water Resources Control Board (SWRCB) Order WQ 99-09, the State Board considered the environmental groups' claim that effluent limitations for copper and other metals violated anti-backsliding rules.

[T]he Board concludes that this case falls under an exception to the anti-backsliding rule. Water quality-based limits may be relaxed in a later permit based on new information. This exception applies if the information was not available when the prior permit was issued and if it would have justified less stringent effluent limitations. When the Regional Water Board reissued the South Bay permits, the Regional Water Board had new information on appropriate water-effect ratio for copper, translators for both copper and nickel and the acute-to-chronic ratio for nickel. This new information would have justified less stringent limits in 1993.

CCCSD has been able to comply with the copper final limits for the past five years. However, CCCSD is concerned that under drought conditions, the concentration of copper may increase with reduced water use to the extent that compliance with the final effluent concentration limits would be jeopardized. Most other dischargers have, or will have, final limits that are less stringent but are based on sound scientific data. CCCSD has identified copper as one of its top priorities in its 2007 Pollution Prevention Plan and will continue to focus efforts and resources on reducing sources of copper into the treatment plant. We do, however, request that the final copper limits be corrected to reflect the scientifically developed WER of 2.4. If the RWQCB refuses to adopt corrected effluent limitations, at minimum, the T.O. should be revised to acknowledge the fact that new information is now available that would justify less stringent effluent limitations. This information includes the development of the SSO, the adoption of the WER of 2.4, and the removal of copper from the 303(d) list. If the final limits are not revised, the final permit should explicitly state that this new information will be

considered if additional new circumstances create a situation where CCCSD may not be able to comply with the lower effluent limitations for copper.

For the reasons stated above, CCCSD must object to the overly stringent effluent limitations for copper in the T.O. The RWQCB has not made sufficient findings, and the T.O. is not supported by the evidence.

FINAL LIMITS FOR MERCURY

The T.O. proposes final effluent mercury limits of 0.018 and 0.046 $\mu\text{g/L}$ monthly average and daily maximum, respectively. These limits are based on an outdated United States Environmental Protection Agency (USEPA) water quality objective that has been in the RWQCB Basin Plan since 1986. The USEPA effectively abandoned the 0.025 $\mu\text{g/L}$ objective in 2000, with the adoption of a saltwater human health criterion of 0.051 $\mu\text{g/L}$ for South San Francisco Bay and the rest of California. The objective remains in the Basin Plan even though the RWQCB staff, Dr. Tom Mumley, stated, "The Water Board is also replacing the outdated water quality objectives for mercury..." (*The Pulse of the Estuary 2006 Report*, page 7). On August 9, 2006, the Regional Board adopted a Mercury TMDL Basin Plan amendment that will eliminate the 1986 water column human health objective and replace it with a fish tissue-based objective. CCCSD is concerned that the Basin Plan objective, with its scientific limitations, is being used to develop final effluent limits.

CCCSD is in the process of implementing a mandatory dental amalgam separator program for all dentists discharging to our system. This program, however, is not expected to result in full compliance with the proposed final effluent limits. In addition, CCCSD will need to make a capital investment in mercury removal technology. CCCSD has developed preliminary costs for treatment technology to comply with the proposed final limits; these costs range from \$16 million to \$53 million to reduce the effluent mercury concentration to consistently comply with the proposed final limits.

CCCSD along with the Bay Area Clean Water Agencies (BACWA) have participated and supported the development of the Mercury TMDL for the San Francisco Bay. If the TMDL is not adopted in a Basin Plan amendment and a watershed permit is not completed by April 28, 2010, the proposed final effluent limits will become effective according to the T.O. CCCSD is concerned that if the TMDL is not completed by the above date and the proposed final effluent limits become effective, the RWQCB may apply the anti-backsliding provisions (as the RWQCB proposed for copper in this T.O.) such that any subsequently adopted TMDL would not change these problematic effluent limits. To remedy this concern, the T.O. should clearly state that whenever the Mercury TMDL becomes legally effective, the TMDL limitations shall supersede the final effluent mercury limits proposed in the T.O.

Strong legal arguments exist for the fact that implementation of the TMDL-based effluent limits will not violate anti-backsliding rules. "A limit that implements or is consistent with the wasteload allocation in a TMDL complies with the [anti-backsliding] exception in Section 303(d)(4) for nonattainment waters." (*In the Matter of Review on its Own Motion of Waste Discharge Requirements for the Avon Refinery, et al. [Tosco]*, State Water Resources Control Board, Order WQ 2001-06, p. *25.)

For the reasons stated above, CCCSD must object to the overly stringent effluent limitations for mercury in the T.O. The RWQCB has not made sufficient findings, and the T.O. is not supported by the evidence.

FINAL LIMITS FOR CYANIDE

The RWQCB adopted the cyanide SSO on December 13, 2006. CCCSD was actively involved in the development of the SSO, and the T.O. appropriately provides for alternate effluent limits (from the SSO) to supersede the proposed final effluent limits in the T.O. when the SSO becomes legally effective.

CCCSD cannot consistently meet the proposed final limits and, thus, will continue to support the cyanide SSO through adoption by the SWRCB and subsequent USEPA approval.

FINAL LIMITS FOR DIOXIN

In CCCSD's 2001 NPDES permit, the RWQCB included an interim mass limit for dioxin (0.836 mg/month). The mass limit is calculated as 2,3,7,8-TCDD TEQ. CCCSD appealed the permit based on the inclusion of the dioxin mass limit, and the appeal was held and remains in abeyance. The current T.O. extends the interim dioxin mass limit until June 2011 and then provides a dioxin concentration final effluent limit of 0.014 pg/L, expressed as 2,3,7,8-TCDD TEQ. The issues regarding the dioxin mass limits in the appeal have not been resolved, and the addition of final effluent concentration limits has further increased CCCSD's concerns.

Section IV.C.4 in the T.O. states that the Basin Plan narrative bioaccumulation objective is translated into a numeric objective expressed in 2,3,7,8-TCDD (or dioxin – TEQ) equivalents based on the CTR criterion for 2,3,7,8-TCDD and the application of the toxic equivalence factors (TEFs) for dioxins and furans adopted by the World Health Organization in 1998.

CCCSD does not understand the value of the proposed limits given technological limitations of laboratory instruments and the difficulties with measuring dioxin. No laboratory can accurately measure dioxin to the level of the proposed objective. In fact the minimum levels (ML) for all dioxin congeners are substantially higher than the water

quality objective. Therefore, although some dioxin congeners are detected, they are below the ML. The RWQCB has investigated methods to concentrate dioxin from large samples (up to 1,000 L) in an attempt to more accurately detect dioxin. To date the efforts have not been successful due to increasingly poor dioxin recoveries as the sample size becomes larger. In addition, the primary source of dioxin is air emissions, and CCCSD does not have any means to control these sources. In fact, CCCSD's 2001 NPDES permit states the following, "The Board recognizes that the primary source of dioxins and furans in the Bay Area is air emissions from combustion sources. Dioxins and furans in wastewater are mainly attributed to domestic waste and storm runoff, especially the latter that entrains these pollutants as a result of air deposition. The root cause of dioxin detected is beyond the discharger's control." The fact sheet of the T.O. contains a similar acknowledgement on pages F-31 – F-32.

Again the question arises, "What value is there in imposing mass or final concentration limits for dioxin when detection to the level of the proposed water quality objective cannot be achieved and CCCSD has no control over the dioxin sources?"

South Bayside System Authority (SBSA) has raised legal concerns with applying CTR dioxin criterion for 2,3,7,8-TCDD (0.014 pg/L) by using toxic equivalence factors of 2,3,7,8-TCDD TEQ (see Exhibit 1 in the SBSA's comments on their T.O. dated December 18, 2006). CCCSD has similar concerns with the appropriateness and legality of imposing a final numerical concentration limit based on 2,3,7,8-TCDD TEQ.

The State Board and the Court of Appeal have determined that numeric water quality based effluent limitations are not appropriate for dioxin discharges in Suisun Bay. 40 C.F.R. § 122.44(k)(3) "permits non-numeric WQBEL's where numeric ones are not feasible" (*Communities for a Better Environment v. State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, 1104). In the case of dioxin discharges from the Golden Eagle Refinery to Suisun Bay, "the Regional and State Boards in essence concluded that a numeric WQBEL was not feasible (i.e., 'not appropriate')...." (*Id.* at p. 1105). The reasons a numeric final limit were not appropriate for the refinery were that the dioxin problem requires a region wide cross media assessment, the refinery could not comply with numeric limits, the next step in treatment would be overly burdensome and not cost effective, and the root cause of the pollution was beyond the refinery's control (*Id.* at p. 1100; see also *In the Matter of the Petition of Boeing Company*, State Water Resources Control Board, Order 2006-0012, p. *15 ["the court {in *Communities for a Better Environment*} addressed the feasibility of a numeric effluent [limitation] where the limitation implemented a narrative water quality objective, there was a need for ongoing study of the constituent, and there was an upcoming TMDL for the particular constituent."]).

The reasons that a numeric water quality based effluent limitation should not be included in CCCSD's permit are nearly identical to those confronting the refinery. The final permit should not include a numeric final effluent limitation for 2,3,7,8-TCDD TEQ.

The 2,3,7,8-TCDD TEQ limitations are also improper interpretations of the narrative bioaccumulation objective. That objective provides that "*Controllable* water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life." (Emphasis added.) The introduction to the water quality objectives chapter of the Basin Plan explains that:

When uncontrollable water quality factors result in the degradation of water quality beyond the levels or limits established herein as water quality objectives, *the Regional Board will conduct a case-by-case analysis of the benefits and costs of preventing further degradation.* In cases where this analysis indicates that beneficial uses will be adversely impacted by allowing further degradation, then the Regional Board will not allow controllable water quality factors to cause any further degradation of water quality. Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the state and that may be *reasonably controlled.* (Emphasis added.)

Because the water quality objective regulates only controllable water quality factors, and controllable water quality factors are defined to include only human activities that may be reasonably controlled, the RWQCB must consider only controllable factors both in its reasonable potential analysis and in calculating effluent limitations. The fact sheet stipulates that "the main source of dioxins and furans in the domestic waste stream is beyond the Discharger's control... [D]ioxins and furans concentrations cannot be further reduced without significant upgrades to the facility to advanced treatment which could be overly burdensome and would not be cost effective for the benefits received." (p. F-32). Thus, the RWQCB concedes that dioxin comes from human activities that may not be "reasonably controlled." There is no reasonable potential for CCCSD's discharge to cause or contribute to an excursion above the narrative water quality objective because it only prohibits detrimental increases in concentration caused by controllable water quality factors. Even if CCCSD's effluent did exhibit reasonable potential for 2,3,7,8-TCDD TEQ, the final effluent limitations are improperly designed to regulate uncontrollable water quality factors—regulation that exceed the requirements of the narrative water quality objective.

In addition, under the provisions of the Basin Plan, uncontrollable water quality factors can only be regulated after the RWQCB has conducted a "case-by-case analysis of the benefits and costs of preventing further degradation." No such analysis has been

conducted for 2,3,7,8-TCDD TEQ. Uncontrollable discharges of 2,3,7,8-TCDD TEQ cannot be regulated until the study has been completed.

An additional legal defect in the T.O. is that it does not disclose how the RWQCB complied with 40 C.F.R. § 122.44(d)(1)(vi). Page 6 of the T.O. asserts that regulation is a basis for the permit and lists three ways for establishing water quality based effluent limitations to implement narrative water quality objectives. CCCSD is unable to comment on whether the 2,3,7,8-TCDD TEQ was derived in compliance with section 133.44 because there are not sufficient findings explaining which of the three options identified on page 6 of the T.O. was utilized. CCCSD assumes the third option was not used because in *Communities for a Better Environment*, “the parties agree[d] that option C, the third and final option, is not pertinent to this case” (109 Cal.App.4th at p. 1095).

There are numerous other legal deficiencies regarding the T.O.’s imposition of final effluent limitations for 2,3,7,8-TCDD TEQ. There is no federal water quality criterion for 2,3,7,8-TCDD TEQ, nor is there any applicable numerical state water quality objective. As such, no effluent limitation is required by federal law, and the RWQCB has not complied with Porter-Cologne requirements for regulation more stringent than required by federal law. When adopting effluent limitations under state law, the RWQCB must consider economics and other factors (Wat. Code, §§ 13263, 13241). If the economic impact of the effluent limitations would be severe, the limitations must be made less stringent (*Burbank v. State Water Resources Control Board* (2005) 35 Cal.4th 613, 626 fn. 7 [“State law, as we have said, allows a regional board to consider a permit holder’s compliance cost to relax pollutant concentrations, as measured by numeric standards, for pollutants in a wastewater discharge permit.”]). The RWQCB has not considered the factors listed in Water Code section 13241 for 2,3,7,8-TCDD TEQ, and it cannot include effluent limits in CCCSD’s permit without doing so. The RWQCB must also conduct section 13241 analysis because the final effluent limitations for 2,3,7,8-TCDD TEQ exceed even the requirements of the narrative bioaccumulation objective (Wat. Code, § 13263). Finally, Water Code section 13000 requires only regulation to “attain the highest level of water quality which is reasonable,” and section 13241 requires only “reasonable protection of beneficial uses.” The 2,3,7,8-TCDD TEQ effluent limitations in the T.O. go far beyond these requirements. Based on these concerns, CCCSD requests that the specific numeric 2,3,7,8-TCDD TEQ mass and concentration limits be eliminated from the permit.

Notwithstanding the above arguments against imposing final dioxin limits, CCCSD also does not agree with the RWQCB’s interpretation of the compliance schedule for final effluent limits.

The 0.014 pg/L 2,3,7,8-TCDD TEQ final effluent limitation is a new interpretation of the narrative bioaccumulation water quality objective. CCCSD’s 2001 permit contained only

the less-stringent mass limitation, and the mass limitation was not a final effluent limit. The 2001 permit did not contain the 0.014 pg/L 2,3,7,8-TCDD TEQ concentration limit. The State Board has repeatedly interpreted the Basin Plan for the San Francisco Bay Basin "to authorize compliance schedules for new interpretations of existing standards" (*In the Matter of Review on its Own Motion of Waste Discharge Requirements for the Avon Refinery, et al. [Tosco]*, State Water Resources Control Board, Order WQ 2001-06, p. *26; see also *In the Matter of the Review on Own Motion The City of Turlock, Municipal Services Department*, State Water Resources Control Board, Order WQ 2002-0016, p. 8).

The *Tosco* Order found that a compliance schedule for dioxin was justified for many reasons that apply to CCCSD: it is not feasible to comply with the final effluent limitation, solving the problem will require a regional, multi-media approach well-suited to the TMDL program, this is an "interim permit," and point sources are not the primary source of dioxin in Suisun Bay. For these reasons, the permit should include a 10-year compliance schedule instead of the much shorter 4½ year schedule in the T.O.

The fact sheet demonstrates that the RWQCB incorrectly calculated the compliance schedule from the effective date of the prior permit (p. F-40). Although the prior permit may have been the first time the RWQCB newly interpreted the narrative objective to regulate TCDD TEQ, it was a different interpretation than the 0.014 pg/L 2,3,7,8-TCDD TEQ included in the T.O. The compliance schedule, according to precedential State Board orders, runs from the date of the new interpretation at issue, not the date of *any* prior interpretation.

Notwithstanding CCCSD's objection to the imposition of final effluent dioxin limits and the corresponding differences in the interpretation of a compliance schedule, the impacts to CCCSD of imposing final dioxin limits can be evaluated in the near term with some certainty. The dioxin MLs and the limitations in detection will provide low risks of permit violations. However, the longer-term implications are much less certain. Technological improvements in laboratory detection, as well as other undefined eventualities, could result in compliance issues with no constructive means to respond. In addition, there is uncertainty as to when, if ever, a dioxin TMDL will be completed. Without a TMDL, it seems apparent that a regional, multi-media approach to dioxin will not occur and the basis for final dioxin limits (if imposed) would remain questionable.

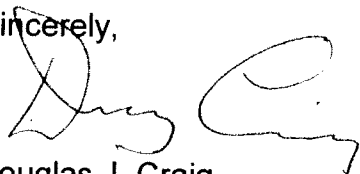
For the reasons stated above, CCCSD must object to the final effluent limitations for 2,3,7,8-TCDD TEQ in the T.O. and to the inappropriately short compliance schedule. The RWQCB has not made sufficient findings, and the T.O. is not supported by the evidence.

Mr. Bruce Wolfe
Regional Water Quality Control Board
Page 10
December 29, 2006

CONCLUSION

CCCSD has a track record of support of SSOs, TMDLs, and other major regulatory efforts in San Francisco Bay, working in collaboration with Regional Board staff. We hope to resolve the complex issues related to copper, mercury, and dioxins through scientific understanding and a collaborative approach with the Regional Board that avoids unnecessary risk of future noncompliance.

Sincerely,



Douglas J. Craig
Director of Plant Operations

DJC:ms:pk

cc: K. Alm, Meyers, Nave
B. Dhaliwal
A. Farrell
J. Kelly
T. Potter
R. Schmidt
Derek Whitworth, RWQCB (dwhitworth@waterboards.ca.gov)

ENCLOSURE 1

SUGGESTED CHANGES TO TEXT

1. Page 4 Table 4. Facility Information

Facility Address: Please change "Contra Costa" to read "Contra Costa County."

Facility Contact, Title and Phone: Please change phone number from "925-228-9500" to read "925-229-7284."

Facility Design Flow: Please change "48.0 MGD measured average dry weather flow" to read "42.2 MGD current monthly average dry weather flow."

Facility Design Flow: Please change "49.2 MGD measured peak dry weather flow" to read "56.9 MGD current daily peak dry weather flow."

Facility Design Flow: Please change "167 MGD measured peak wet weather flow" to read "260 MGD hourly average peak wet weather flow."

2. Page 5 Findings. Paragraph B. Facility Description

Line 5: Please change the number of pumping stations from "18" to "19."

Line 7: Please change "anaerobic selection" to "anaerobic selector."

3. Page 6 Table 5. Basin Plan Beneficial Use

Based upon CCCSD's receiving water beneficial use survey, there is no contact recreation (REC-1) in the vicinity of CCCSD's discharge. There are no known nearby beaches or other such recreational facilities that would allow contact recreation. Therefore, CCCSD recommends deleting the contact recreation (REC-1) classification of CCCSD's receiving water beneficial uses classification.

4. Pages 7 & 8 II.M. Stringency of Requirements for Individual Pollutants

Last Paragraph: "...collectively, this order restrictions on individual pollutants are no more stringent than required to implement the ... water quality standards for purpose of the Clean Water Act (CWA)."

CCCSD believes that the above statement is not correct for the proposed final effluent limitation for mercury. The proposed final effluent limitation is based upon the Basin Plan water quality objective of 0.025 $\mu\text{g/L}$. The CWA does not support the Basin Plan's 0.025 $\mu\text{g/L}$ water quality objective or a final effluent limit based upon it. The lowest applicable CWA (CTR) mercury criterion is 0.05 $\mu\text{g/L}$. Therefore, the mercury final effluent limit based upon (outdated) 0.025 $\mu\text{g/L}$ water quality criterion is almost twice more stringent than the CWA requires.

5. Page 11 IV. Effluent Limitation and Discharge Specifications

A.c. Enterococci Bacteria: "The 30-day geometric mean shall not exceed...."

Please change the "The 30-day geometric mean" to read "The monthly geometric mean...."

6. Page 11 Table 7. Effluent Limitations – Toxic Pollutants

Footnote [2]: "A daily maximum or monthly average value for a given constituent shall be considered non compliant with the effluent limitation only if it exceeds the effluent limitation and the Reporting Level for that constituent...."

Please change "Reporting Level" to read, "Minimum Level as shown in Table 8 of this Order or SIP Appendix 4." The rest of the paragraph is redundant and should be deleted. Note that SIP Appendix 4 refers only to MLs, not RLs. The SIP MLs are multi-laboratory performance-based quantification levels established by the SWRCB. While the RLs change from lab to lab and from time to time, the MLs are fixed until the SIP is amended.

7. Page 12 Table 7.

Footnote [3]: Please add the following footnote after [3]:

^[a] Alternate effluent limits for mercury: When the mercury TMDL becomes legally effective, the TMDL limitations shall supercede the final effluent mercury limits.

8. Page 12 Table 8.

Please include in Table 8 the following MLs for dioxin congeners. These values are one-half of the USEPA Method 1613.

Isomer Group	Minimum Level	Unit
2,3,7,8-TetraCDD	5	pg/L
1,2,3,7,8-PentaCDD	25	pg/L
1,2,3,4,7,8-HexaCDD	25	pg/L
1,2,3,6,7,8-HexaCDD	25	pg/L
1,2,3,7,8,9-HexaCDD	25	pg/L
1,2,3,4,6,7,8-HeptaCDD	25	pg/L
OctaCDD	50	pg/L
2,3,7,8-TetraCDF	5	pg/L
1,2,3,7,8-PentaCDF	25	pg/L
2,3,4,7,8-PentaCDF	25	pg/L
1,2,3,4,7,8-HexaCDF	25	pg/L
1,2,3,6,7,8-HexaCDF	25	pg/L
1,2,3,7,8,9-HexaCDF	25	pg/L
2,3,4,6,7,8-HexaCDF	25	pg/L
1,2,3,4,6,7,8-HeptaCDF	25	pg/L
1,2,3,4,7,8,9-HeptaCDF	25	pg/L
OctaCDF	50	pg/L

9. Page 12

Footnote [6]: "The interim limitation for dioxin TEQ shall remain in effect until June 30, 2010."

Please change the date to read "June 30, 2011."

10. Page 14 g(2) Mercury (interim) Mass Emission Limitation

Please replace the proposed mass loading calculation formula with the following:

$$\text{Mass Loading (lbs/month)} = \text{Flow (MGD)} \times \text{Mercury concentration, } \mu\text{g/L} \times 0.2536$$

11. Page 15

Please replace the proposed dioxin mass loading calculation formula with the following:

$$\text{Mass Loading (mg/month)} = \text{Flow (MDG)} \times \text{Dioxin, TEQ, pg/L} \times 0.1151 \times 0.000001$$

12. Page 17 C. Special Provisions

Please add the following paragraph after paragraph e:

“f. The San Francisco Bay RWQCB is proposing a Municipal Regional Permit (RMP) to control pollutant sources in storm water using strategies that involve redirecting discharges that currently go to the storm drain system to the sanitary sewer system. In some cases, the discharges could contain pollutants such as copper, dioxin, and mercury that, if discharged in large quantities to CCCSD’s collection system, could create problems with meeting the final effluent limits for these pollutants. While CCCSD is available to receive these types of redirected wastewater sources with appropriate controls, adjustments to the overly restrictive final effluent limits should be available through a reopener provision of the permit.”

13. Page 18 2.b. Regional Monitoring Program

Last paragraph: “The discharger shall monitor ambient receiving water for priority toxic pollutants and continue to participate in the RMP to provide on-going characterization of water quality in the Bay and to perform reasonable potential analyses from time to time to establish water quality based effluent limitations when necessary....”

Please delete the sentence starting with “and to perform reasonable potential analyses....” The discharger usually does not perform RPA or establish water quality effluent limitations. This function is done by the RWQCB.

14. Page 19 3.b.

Please change the date of submittal of the annual report to February 28 of each year. This date is consistent with the current NPDES requirements.

15. Page 21 C.(1)

“A sample result is reported as DNQ and the effluent limitation is less than the RL; or....”

Please change “RL” to “ML as shown in Table 8 of this Order or SIP Appendix 4.”

16. Page 21 C.(2)

“A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in SIP.”

Please change, “using definition described in SIP” to read “as defined in 40 CFR Part 136 Appendix B.”

17. Page 23 e.(2). The last sentence of the paragraph.

Please note that “90 days” is not realistic. CCCSD recommends changing “90 days” to read “360 days.”

18. Page 26 VII.A. General

“Compliance with effluent limitation for priority pollutants shall be determined.... For purposes of reporting and administration enforcement..., the discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the Reporting Level (RL).”

Please change the portion of the last sentence “equal to the Reporting Level (RL)” to read “equal to the ML as shown in Table 8 of this Order or SIP Appendix 4.” Please note that RL and ML are not synonymous. The RL is individual laboratory-specific, while the ML is multi-laboratory performance based value established by the SWRCB (SIP Appendix 4). The RL is a detection level achieved by a given laboratory, while ML represents a quantification level achieved by multiple laboratories in a statewide survey. The RL changes depending upon several factors, such as sample manipulation, instrumentation, and analyst. The ML, on the other hand, is a fixed value until the SIP Appendix 4 is amended by a formal public process.

19. Page A-1

Bottom paragraph: “Detected but not quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory’s MDL.”

Please change “RL” to read “ML as shown in Table 8 of this Order or SIP Appendix 4.”

20. Page A-3

Third paragraph: "Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point...."

Please replace the above paragraph with the following: "Minimum Level (ML) is a quantification level established by the SWRCB in SIP Appendix 4."

Please note that the SIP Appendix 4 ML values are not consistent with the above definition of ML. The SIP values were developed using a statistical procedure and established by SWRCB based upon a statewide survey of multiple laboratories' lowest point on calibration curves.

According to the definition of ML above, the ML will change from time to time and from lab to lab; however, the SIP ML is a fixed value until the SIP is amended.

21. Page A-4

Second paragraph: "Reporting Level (RL) is the ML...."

This paragraph is redundant (see our discussion on RL/ML above), and we recommend its deletion.

22. Attachment C C-2. Wastewater Flow Schematic

Please replace the existing page C-2, Wastewater Flow Schematic, with the attached, revised page C-2, Wastewater Flow Schematic. Note that the revised Wastewater Flow Schematic correctly shows the scrubber water flow diversions.

23. Page D-2 G.1.a. "Bypass means the intentional diversion of waste streams from any portion of a treatment facility..."

Please add the following after the above paragraph: "CCCSD has several basins for temporary wastewater storage. For the above definition of 'bypass,' the storage basins are considered a part of the treatment plant facility."

24. Page E-3 Table E-1. Test Methods and Minimum Level of Pollutants with Effluent Limitations

Please add ML value of 5 $\mu\text{g/L}$ each for copper and lead under column GFAA. CCCSD currently uses GFAA methods for copper and lead analyses.

25. Page E-3 Table E-2. EFF-002.

Please add the following at the end of the paragraph: "This discharge point has not been used since 1998 and will not be used unless it is essential to avoid flooding of the treatment plant facilities or homes in the service area."

26. Page E-3 Table E-2. EFF-003.

Please change the paragraph starting with, "Formerly M-002...." to read, "Near the northeast corner of Holding Basin B. The discharge will be directly into Walnut Creek. The EFF-003 is the proposed new location for CCCSD emergency overflow structure. This discharge structure has not been constructed yet. EFF-002 will be abandoned in approximately five years when a current property lease expires. The property over which EFF-002 currently flows is being developed for industrial use and will eliminate the use of EFF-002."

27. Page E-4 Table E-2. EFF-005.

Please delete reference to EFF-005. EFF-005 is no longer an overflow location.

28. Page E-5 IV.A.1. Table E-4. Effluent Monitoring

Please replace "Required Analytical method" column footnote [14] with footnote [13].

29. Page E-5 IV.A.1. Table E-4. Effluent Monitoring

Please replace chronic toxicity minimum sampling frequency under C-24 column from "Q" to "2M." This will be consistent with the requirement on Page F-42 C.2.

30. Page E-6 Table E-5. Effluent Monitoring at EFF-002, EFF-003, EFF-004, and EFF-005

Please delete footnote [2] for Oil and Grease. This footnote is not applicable for this analyte in receiving water.

Additionally, please delete reference to Total and Fecal Coliform bacteria in the last sentence of footnote [2]. Total and Fecal Coliform monitoring is not applicable for CCCSD. We monitor enterococci instead.

31. Page E-7 A.5.

"Effluent used for fish bioassay must be dechlorinated prior to testing. Monitoring of the bioassay water shall include, on a daily basis, the following parameters: pH, dissolved oxygen, ammonia, temperature, hardness, and alkalinity. These results shall be reported...."

Please change, "These results shall be reported" to read "These results shall be retained by the discharger."

Note that currently these results are being retained by CCCSD. Currently there is no provision in the RWQCB ERS to accommodate the above-required reporting.

32. Page E-7 B.b. Test Species

Please add *Mysidopsis bahia* as an alternate species under conditions that suitable Red Abalone is not available. This requirement is consistent with the current permit.

33. Page E-11 B.4. Reporting Protocols

"The discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Level (MDL)...."

Please change "the applicable Reporting Level (RL)" to read "the applicable ML as shown in Table 8 of this Order or SIP Appendix 4."

34. Page E-12 4.a.

"Sample results greater than or equal to the RL shall be reported...."

Please change to read "sample results greater than or equal to the ML as shown in Table 8 of this Order or SIP Appendix 4 shall be reported...."

35. Page E-12 4.b

“Dischargers are to instruct laboratories to establish calibration standard so that the ML value (or its equivalent if there is a differential treatment of samples relative to calibration standards) is the lowest calibration standard.”

Please replace the above paragraph with the following: “Dischargers are to instruct laboratories to establish calibration standard (curve) such that the lowest point on the calibration curve is not higher than the respective ML value shown in SIP Appendix 4.”

36. Page F-3

Please correct “Facility Address,” “Facility Contact, Title and Phone,” and “Facility Design Flow” information as noted in our Comment No. 1.

37. Page F-4 II. Facility Description

“The discharger provides sewerage service for the Central Contra Costa Sanitary District.”

Please change “Central Contra Costa Sanitary District” with “Central Contra Costa County.”

38. Page F-4 II. Facility Description

A. Description of Wastewater and Biosolids Treatment or Controls, paragraph 2: “The facility’s dry weather design...the discharge: Report of Wastewater Discharge describes the average daily flow rates that vary between 44 and 167 MGD.”

Please change “flow rates that vary between 44 and 167 MGD” to read “flow rates that vary between 26.7 and 260 MGD.”

Please add the following at end of paragraph 3: “CCCSD will be constructing a project to discharge excessive wet weather flows to Walnut Creek from Basin B at point EFF-003 instead of discharging from Basin C at point EFF-002.”

39. Page F-5 C. Storm Water

Please change the number of pumping stations to 19.

40. Page F-5 Last paragraph.

Please delete reference to EFF-005. Note that EFF-005 is no longer a designated discharge point.

41. Page F-6

Second paragraph: "A fourth basin not owned or operated by the discharger."

Please replace the above with the following: "A fourth basin owned but not operated by the discharger."

42. Page F-8 Table F-6. Basin Plan Beneficial Uses

Please delete Rec-1 classification. See our discussion under Comment No. 2 above.

43. Page F-15 2. Enterococci Bacteria

Please change "30-day geometric mean" to read "Monthly geometric mean."

44. Page F-27 4.a.(5). Antibacksliding/Antidegradation

"Because the previous permit limits were lower than the calculated limits and it has been feasible to comply with them, the previous permit limits have been retained to avoid backsliding."

CCCSD does not agree with the above conclusion. Refer to comments under "Final Limits for Copper."

45. Page F-29 C. Mercury. (1) Mercury WQC

"The most stringent applicable water quality criteria for mercury are established by the Basin Plan for protection of saltwater aquatic life – 2.1 $\mu\text{g/L}$ and 0.025 $\mu\text{g/L}$ acute and chronic criteria respectively."

Note that the 0.025 $\mu\text{g/L}$ criterion is outdated. Refer to comments under, "Final Limits for Mercury."

46. Page F-36 Enterococci Bacteria

Please change "30-day geometric mean" to read "Monthly geometric mean."

47. Page F-36 Table F-17.

Footnote [3]: "The Order retains from the previous permit an interim, mass emission limitation for dioxin-TEQ of 0.836 mg/month expressed as a running annual average."

Please add the following to footnote [3]: "Interim limitation for dioxin-TEQ shall remain effective through June 30, 2011. Final effluent limitation shall become effective after that date."

Please add the following after footnote [3]:

"^[a] Alternate mercury effluent limits: When the Mercury TMDL becomes legally effective, the TMDL limitations shall supersede the final effluent mercury limits."

48. Page F-40 1.C.

"The previous permit included an interim mass-based effluent limitation for dioxin-TEQ of 0.836 mg/month. This interim limitation is being retained until final concentration –based limitation for dioxin-TEQ becomes effective on May 18, 2010."

Please change the date "May 18, 2010" to "June 30, 2011."

49. Page F-43 D.1. Surface Water

"The MRP retains all receiving water monitoring requirements from the previous permit."

The above language conflicts with language in paragraph VIII on page E-10.

50. Page F-45 VII.C.4. Requirement to Support SSO and TMDL, and Assure Compliance with Final Limits

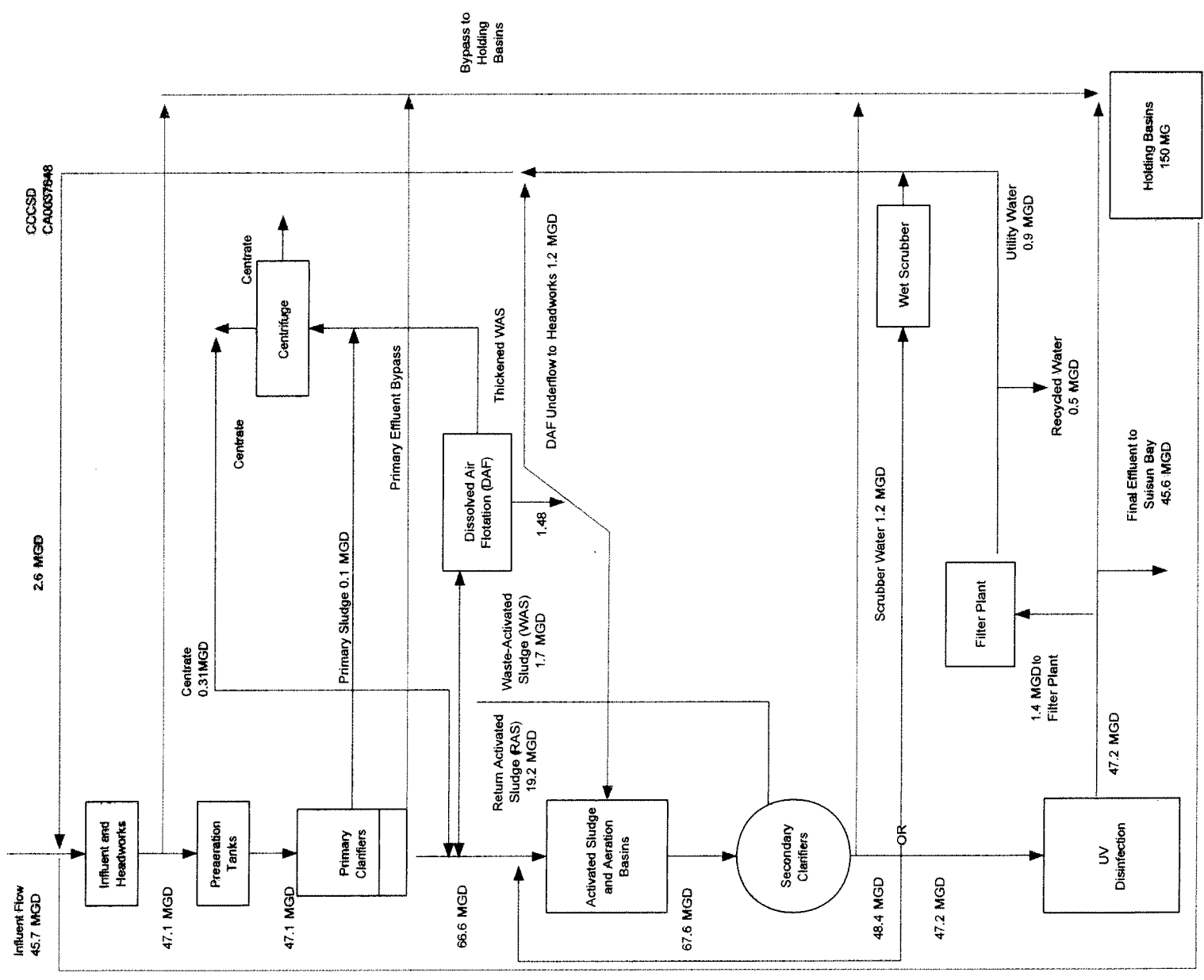
Third paragraph: "The requirement to submit a report of further measures to reduce these pollutants and ensure compliance with the final limits should the TMDL or SSO, is based on...."

Please change the above sentence to read, "The requirement to submit a report of further measures to reduce these pollutants and ensure compliance with the final limits should the TMDL or SSO be adopted and approved, is based on...."

51. Page H-10 Appendix C

First paragraph: "The discharger shall conduct sampling of its treatment plant: influent, effluent, and sludge, at a frequency as shown in Table 2 on page 5 of the Self-Monitoring Program (SMP)." Please change the above paragraph to read: "The discharger shall conduct influent, effluent, and sludge sampling semi-annually."

Water Balance and Flows Between Treatment Units



LEGEND

- ← Flow Through Plant
- ← Scrubber Water
- ← Primary Sludge and Return or Waste-Activated Sludge
- ← DAF Underflow
- ← Thickened WAS and Centrate
- ← Filter Plant Flow
- ← Bypass to and from holding basins

CCCCSD
CA0037948

2.5 MGD

Influent Flow
45.7 MGD

47.1 MGD

Centrate
0.31MGD

47.1 MGD

Primary Sludge 0.1 MGD

66.6 MGD

Centrate

Primary Effluent Bypass

Bypass to
Holding
Basins

Return Activated
Sludge (RAS)
19.2 MGD

Waste-Activated
Sludge (WAS)
1.7 MGD

Thickened WAS

DAF Underflow to Headworks 1.2 MGD

67.6 MGD

48.4 MGD

OR

47.2 MGD

Scrubber Water 1.2 MGD

1.4 MGD to
Filter Plant

47.2 MGD

UV
Disinfection

Recycled Water
0.5 MGD

45.6 MGD

Final Effluent to
Suisun Bay

150 MG