

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESPONSE TO WRITTEN COMMENTS
ON THE REISSUANCE OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT FOR

Discharges from Union Sanitary District Wet Weather Outfall
NPDES No. CA0038733

Note: The format of this response begins with comments quoted verbatim, and some less controversial comments paraphrased for brevity. Responses follow each comment. The comment letters are attached to this Response to Comments.

Deleted: entire

RESPONSE TO UNION SANITARY DISTRICT'S (USD) COMMENTS

USD Comment 1: *“The Regional Board should recognize that dilution is occurring in Old Alameda Creek during wet weather discharges and allow this dilution as in the current permit.*

The District is currently allowed dilution in its previous permit, as indicated on Page 1 of Order No. 95-053 as follows:

*“Old Alameda Creek is operated as a flood control channel by Alameda County Flood Control and Water Conservation District and flows to Lower San Francisco Bay where **dilution of greater than 10:1 is expected.**” (emphasis added)*

The District has been allowed dilution since the inception of this permit for the wet weather discharge. In addition, the wet weather discharges are happening only during very large storm events and it is reasonable to expect a large amount of dilution is occurring in the receiving water during this time. In fact, the District has measured the ratio of effluent flow to receiving water flow during the last discharges in 1998. The dilution quantities ranged from 55:1 and 79:1 during the three events in February, 1998. This information was submitted to the Regional Board in March 1998, and should be sufficient to continue granting dilution to the District, as the Regional Board has always been. In addition, it seems inappropriate to require the District to spend tens of thousands of dollars to conduct a special study to determine dilution, for a discharge that is expected to happen only once every 10 years and only during large storm events. Likewise, the pH effluent limitation should be revised to reflect the dilution allowance.”

Response 1:

- a. A Dilution Study is necessary in order to determine an appropriate dilution credit pursuant to the State Implementation Policy (SIP).

We recognize that dilution is likely occurring in Old Alameda Creek during peak wet weather conditions. However, a Dilution Study is necessary in order to determine (1) if the wet weather discharge is a completely mixed discharge, and (2) what is an appropriate dilution credit.

The dilution ratios obtained by USD during 1998 wet weather discharges are estimated dilution values, which were calculated based on only one surface float velocity in the creek. We believe this one value alone is not adequate to characterize the stream flow volume. This 1998 work also does not

give information on whether the wet weather discharge is a completely mixed discharge as defined in the SIP.

We do not believe that a Dilution Study will cost USD tens of thousands of dollars, as we believe simple studies and use of available creek flow data will guide the information needed for a dilution determination. According to the SIP, the Dilution Study will involve (1) measuring the amount of receiving water available to dilute the effluent, in other words, conducting flow monitoring during peak wet weather conditions in Old Alameda Creek, and (2) verifying if the wet weather discharge is completely mixed discharge as defined in SIP. To verify completely mixed discharge, you will need to take samples across a transect of the creek within two creek widths from the discharge point and measure for a tracer or dye.

- b. The previous permit does not grant a dilution credit.

Contrary to USD's interpretation, the previous permit did not grant a dilution credit. In fact, Finding 12 of the previous permit explains why an exception to the Basin Plan's prohibition against discharges that do not get at least 10:1 dilution should be allowed in this case. Finding 12 states, "the Basin Plan prohibits discharge of any wastewater... at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1." Therefore, the previous permit in Finding 13 granted an exception to this prohibition in order to permit this wet weather discharge.

USD quotes Finding 4 of the previous permit as basis for the Board's allowance of a dilution credit. Finding 4 states, "Old Alameda Creek is operated as a flood control channel by...and flows to Lower San Francisco Bay where dilution of greater than 10:1 is expected." A more proper interpretation of this statement is that the Board felt that by the time the discharge reached lower San Francisco Bay, it would have been diluted by 10:1.

Regardless of what the previous permit may or may not have granted, dilution credits in the current permit must be consistent with applicable regulations (i.e. SIP) that have come into effect since the previous permit.

- c. Dilution credit is not pertinent in determining limits in this permit renewal.

The tentative order prescribes interim performance based limits. Dilution credit is not a factor in calculating interim performance based limit. USD will get the same limits with or without dilution credit.

USD Comment 2: *Replacing "test bypass valve" with "exercise valve".*

Response 2: The Tentative Order has been changed as suggested.

USD Comment 3: *"The Regional Board should indicate in Finding 20 that the wet weather discharge does not increase the total load to San Francisco Bay. The only reason the wet weather discharge (the subject of this NPDES permit) exists is due to the limitation in capacity of the East Bay Discharger Authority's outfall. Therefore, the District would like to acknowledge this fact with the following language added to Finding 20:*

...

- e. PWWF discharges do not increase the total load of pollutants to San Francisco Bay but result in their discharge to Old Alameda Creek instead of the EBDA outfall."*

Response 3: Findings 20.a. through 20.d. are identical to the previous order, and relate to the reasons for granting a exception to the prohibition against shallow discharge. Pollutant loadings are not one of the considerations described in the Basin Plan for granting this exception. However, to address your comment, we added the following language under Finding 8:

“The treated wastewater discharged through the wet weather outfall is a portion of the flow diverted from the main outfall E-2. This wet weather discharge would have been discharged through the EBDA pipeline if that pipe were large enough to transport all the wet weather flow. Therefore, this discharge is not an additional discharge of pollutants.”

USD Comment 4: *“The receiving water salinity should be classified as salt water, not estuarine.*

Formatted

The District’s receiving water for the wet weather outfall is currently classified as salt water, also called “marine,” as indicated on Page 6 of Order No. 95-053, in Footnote a. to Table 1, as follows:

“These [toxic substances effluent] limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.” (emphasis added)

As indicated in the Tentative Order (Finding 24), the District collected salinity data at the discharge location in Old Alameda Creek for a period of 22 days in June 1993. The salinities at the vicinity of the wet weather outfall ranged from 10 ppt to 20 ppt, which is salt water. These data were collected at the discharge location and these data alone should be used to confirm the salinity condition as salt water. Using data from one mile away as an indication of the salinity at the discharge location is only speculative and should not be used to justify an estuarine condition. The District is required to collect salinity data for future discharge events and only these data should be used to change the classification of the discharge salinity condition.”

Formatted

Response 4: Revised Basin Plan in 1995 (after adoption of the previous permit), and revised regulations in 2000 (California Toxic Rule) require use of new salinity definitions in reissued permits. The tentative order is consistent with these new definitions. These definitions are in Findings 22 and 23 of the Tentative Order.

As explained in Finding 24 of the Tentative Order, lacking actual data, the salinity of the receiving water is estuarine because it is comprised of a mixture of freshwater and saltwater. The June 1993 data cited by USD is not representative of the condition of the receiving water at the time of maximum discharge during extreme wet weather (December through March). The available salinity data were taken in June, in the summer during the dry season. The subject discharge occurs in winter during the wet season. The tentative order requires USD to take receiving water salinity data in the receiving water during the peak wet weather condition. The next permit will be able to determine accurately if the receiving water is salt water or estuarine during peak wet weather flow conditions.

Finally, the determination of estuarine instead of saltwater has little effect in this reissuance. This is because all the pollutants that triggered the need for a limit were triggered using saltwater criteria, not freshwater.

USD Comment 5: *“The new effluent limit for oil and grease is inappropriate for the proposed permit.*

Formatted

Formatted

Oil and Grease should not be included in the proposed permit because (1) it is a minor, extremely infrequent discharge, not a continuous discharge which could generate a long term effect, (2) it has high

storm water dilution during discharge, (3) it was not in the previous permit, (4) it is not in EBDA's current permit, (5) during the previous permit renewal of the EBDA permit the historical values were evaluated and found to be consistently nondetect, and (6) the District and EBDA continue to carry out a comprehensive pollution prevention campaign to prevent oil and grease from entering the sewer system.”

Response 5: The Basin Plan requires all permits for sewage treatment facilities include the O&G limit. The O&G limit is a performance-based limit and establishes the treatment plant's on-going performance at all times including wet weather conditions. It is also used to evaluate the effectiveness of pollution prevention measures implemented by dischargers. Excellent past performance records do not guarantee future compliance.

Formatted

We believe the omission of O&G limit from EBDA's permit was an error. We intend to add this limit back into EBDA's permit in the next reissuance.

Formatted

USD Comment 6: “Effluent limits from the existing permit should be continued into the current permit.

Formatted

Formatted

The Regional Board agreed at a meeting on October 6, 2003, and in a telephone conversation of November 5, 2003 that it was appropriate to continue the existing permit limits for toxic substances into the new permit. In particular, The Regional Board indicated that due to the emergency nature of this discharge, and due to the fact that there are very limited effluent data available to calculate the performance-based limit for the wet weather discharge, the interim limits should be based on the existing permit limits.

The District supports the use of the existing permit limits. For the past 10 years, only three discharges occurred on February 3, 7, and 21 of 1998 due to El Nino weather conditions. So only 3 data points are available from these 3 discharges. More data need to be gathered for future discharge events to establish a sufficient data base for a statistically valid performance-based evaluation.

Additionally, the use of E-2 data are not representative of the wet weather outfall because they are 24-hour composite samples representing the 24-hour daily average of effluent quality, and therefore do not represent the actual wet weather discharge, which only occurs over a very short period of time – a couple of hours at the most.”

Formatted

Formatted

Response 6: Except for mercury, the Tentative Order has been changed as suggested mainly because of USD's arguments concerning 24-hour composites verses the short duration of discharge.

We believe that the mercury interim limit should be the performance-based limit obtained from statistical analysis of pooled data (285 data points) from selected municipal dischargers in this region. These mercury data were obtained from grab samples, primarily, from both dry and wet weather discharges from 18 secondary treatment plants in this region. Therefore, we believe the variations in mercury concentrations during wet weather discharges were included in the performance based limit calculation for mercury.

USD Comment 7: “If the Water Board does not use the effluent limits for toxics from the previous permit, the results from the computation of interim limits should be revised to reflect proper statistical procedures. The revised interim limits should be as follows:”

Formatted

Formatted

Formatted

Formatted

Formatted

Formatted

Copper	36 µg/L
Nickel	30 µg/L
Zinc	94 µg/L”

Response 7: See Response 6 above.

Formatted

USD Comment 8: *USD would like to add an additional sentence as identified below in Prohibition 3 to cover natural disaster-type storm events that USD has no control over, but would like recognition for enforcement purposes.*

Formatted

Formatted

“However, flows due to bypass or upset, greater than the 20-year storm event, are allowed as stated in 40 CFR 122.41 (m) and (n).”

Response 8: It is not necessary to quote 40CFR 122.41(m) in Prohibition 3. 40CFR 122.41(m) for bypassing portion of the treatment facility is detailed in changes that we have made to Prohibition 4. Prohibition 4 was changed to be consistent with U.S. EPA’s new blending policy, and the language discussed with Bay Area Clean Water Agencies. Therefore, it is unnecessary to add 40 CFR 122.41(m) in Prohibition 3.

Formatted

It is incorrect to allow plant upset persuade to 40CFR 122.41(n). 40CFR 122.41(n) does not allow upset. Instead, 40CFR 122.41(n) gives definition on plant upset, and include an affirmative defense for enforcement consideration. 40CFR122.41(n)(1) defines plant upset as an exceptional incident, which results in treatment facility upset causing unintentional and temporary non-compliance with technology based effluent limits in the permit. We interpret 40CFR 122.41(n) as that the Board can excise enforcement discretion if the discharger is able to demonstrate that this non-compliance is an upset as defined under 40CFR122.41(n)(1) through an affirmative defense as specified under 40CFR 122.41(n)(3).

USD Comment 9: *“Prohibitions 4 and 5 related to blending should be made consistent with the recently adopted Delta Diablo Sanitation District and Los Gallinas Valley Sanitary District permits.”*

Formatted

Formatted

Response 9: Prohibitions 4 and 5 has been revised to be consistent with the Delta Diablo permit.

USD Comment the first 10: *USD requests that the permit become effective 75 days following the expected date of permit adoption.*

Formatted

Formatted

Response to the first 10: The effective date for this Order is changed to April 1, 2004. This permit will expire on March 1, 2009.

Formatted

USD Comment the second 10: *“The Pollutant Minimization Program required under Provision 11 should be removed. This permit expands the source control/pollution prevention program required in Order No. 95-053, by making it more specific and by including pollutant minimization program requirements contained in the SIP. In adopting a provision that requires the District to expand its source control and pollution prevention program without first assessing the impacts of this requirement on the District and determining that the burden and costs bear a reasonable relationship to the need for the information and the benefits to be obtained from it, the RWQCB will have violated, at a minimum, Water Code sections 13000, 13241, 13263(a), and 13267.”*

Formatted

Formatted

Response to the second 10: Requirement for Pollutant Minimization Program is necessary because SIP requires the Board impose interim requirements, such as pollutant minimization, if a compliance schedule is granted. Therefore, this requirement can be removed only if the permit includes final water quality based effluent limits.

Formatted

Additionally, the Pollutant Minimization Program specified in the tentative order is the same program required under the permit to EBDA for USD's main discharge through outfall E-2 (NPDES Permit No. CA0037869). This is not an additional requirement.

USD Comment 11: "The several apparent omissions, extraneous text, and typographical errors should be corrected in the final NPDES permit as indicated in USD comment."

Formatted

Formatted

Formatted

Response : All four (4) typographical errors pointed out in the comments were corrected

USD Comment on Self-Monitoring Program (SMP): USD requests that all metal sampling be conducted as grabs since the discharges are only a couple of hours in duration, and are much more scientifically appropriate for conducting ultra-clean sampling.

Formatted

Formatted

Formatted

Response to comment on (SMP): We revised footnote a to be written as follow so that USD has the option of taking grab or composite sample:

"If the discharge is expected to last less than 24 hour, the Discharger has the option of taking grab sample, or composite sample by mechanically or manually compositing samples on an hourly, or once every two hour basis for the duration of the discharge."

Ultra-clean sampling is only required for mercury samples. The tentative SMP already requires grab sample for mercury.

RESPONSE TO BAY AREA CLEAN WATER AGENCIES (BACWA) COMMENTS

BACWA Comment 1: The previous NPDES permit allows for a 10:1 dilution. BACWA believes that the Board does not have sufficient justification to remove this dilution allowance.

Response 1: See response to USD comment 1.

BACWA Comment 2: The previous NPDES permit allows for a marine, or salt-water classification, and BACWA believes that this classification is proper and should be maintained.

Response 2: See response to USD comment 4.

BACWA Comment 3: Language of Prohibitions 4 and 5 should be revised to be consistent with language discussed with BACWA, and as adopted in recent permits.

Response 3: See response to USD comment 9.

Additional Changes to the tentative order in response to internal Board staff comments:

Finding 11 Change: Finding 11 about the Basin Plan is revised to be more accurate and be consistent with the recently adopted permits. The deletions (with strike through), and additions (with underline) are expressed in the following:

11. The Board, on June 21, 1995, adopted, in accordance with Section 13240 et seq. of the CWC, a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) ~~on June 21, 1995~~. This updated and ~~consolidated plan represents the Board's master water quality control planning~~

~~document. The revised Basin Plan was approved by the State Water Resources Control Board (SWRCB) and the Office of Administrative Law on July 20, 1995 and November 13, 1995, respectively. A summary of revisions to the regulatory provisions changes is contained in Title 23 of the California Code of Regulations, Section 3912. The Basin Plan identifies beneficial uses and water quality objectives (WQOs) for waters of the State in the Region, including surface waters and ground waters. The Basin Plan also identifies discharge prohibitions intended to protect beneficial uses. This Order is in compliance with implements the Board's Basin Plan.~~

Mercury interim performance based limit: Please note that the Tentative Order has been changed to correct a typographical error in the Tentative Order regarding mercury interim performance-based limit. The correct interim limit for mercury should be 0.087 µg/L. This limit is a region wide performance-based limit derived from the statistical analysis of pooled ultra-clean mercury data from selected municipal dischargers. The detailed analysis is presented in Staff Summary Report titled "Statistical Analysis Data From Regionwide Ultra Clean Mercury Sampling For Municipal Dischargers" and adopted by the Board in June 2001.

Deletion of footnote (5) under item B.2 of the Tentative Order:

~~(5) If the permit expiration date is extended by the Regional Board, the interim limits remain in effect until the permit is renewed or a permit amendment addressing these limits is adopted, whichever occurs sooner.~~

Please note that this footnote is being deleted, because it is in conflict with footnotes (2) and (3), and potentially inconsistent with allowable time frames in the regulations.

Annual Self-Monitoring Report (SMR) Submission Date: The annual SMR submission date is changed from March 1 each year to February 1 each year to be consistent with newly established timeframes for all dischargers in this region. This change is necessary to facilitate the administration of Assembly Bill 1541 that establishes Mandatory Minimum Penalty for late reports.

Delete footnote (5) in T.O.