VALLEJO SANITATION &
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DISTRICT MANAGER
Ronald J. Matheson

November 28, 2011

VIA EMAIL: To: jmadigan@waterboards.ca.gov
Cc: bwolfe@waterboards.ca.gov; ltang@waterboards.ca.gov; wjohnson@waterboards.ca.gov; moakley@rmcwater.com

Mr. John H. Madigan
San Francisco Bay Regional Water Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Comments Regarding Tentative Order Reissuing the NPDES Permit (CA0037699) for the Vallejo Sanitation and Flood Control District

Dear Mr. Madigan:

Thank you for the opportunity to comment on the Tentative Order for the reissuance of the Vallejo Sanitation and Flood Control District (District) Wastewater Treatment Plant's NPDES Permit. The District would particularly like to thank you and your staff for your diligence and care in preparing the Tentative Order. Our comments can be found in the attached document.

Thank you for consideration of these comments. Please let me know if you have any questions or would like additional information.

Sincerely,

Ronald J. Matheson, District Manager
Vallejo Sanitation and Flood Control District

cc: Bruce Wolfe, Regional Water Board
Lila Tang, Regional Water Board
Bill Johnson, Regional Water Board
Monica Oakley, RMC Water and Environment

Vallejo Sanitation and Flood Control District
Wastewater Treatment Plant

Comments on Tentative NDPES Permit
November 28, 2011

The Vallejo Sanitation and Flood Control District (District) appreciates the opportunity to submit the following comments on the Tentative Order (TO) reissuing the NPDES Permit for our Wastewater Treatment Plant (CA0037699). The sections being commented on are shown in roughly the same order as they appear in the Permit. Due to variations in formatting on different computers and printers, page numbers listed may be approximate.

COMMENTS ON NPDES PERMIT TENTATIVE ORDER

1. The District requests clarification of the minimum dilution requirement.

The District understands that the minimum dilution requirement of 26:1 is consistent with the dilution credit included in the ammonia limits calculations, and is intended to protect beneficial uses. Initial dilution was modeled following guidance in the State Implementation Policy (SIP). The District's *Mixing Zone Study Report, Vallejo Sanitation and Flood Control District* (March 22, 2011) indicates, particularly for the Mare Island Strait outfall, that a 26:1 dilution ratio is intended to be used to calculate effluent limits that are protective of beneficial uses. It is very important to the District that it is clear that this minimum initial dilution requirement is consistent with its estimation and would not necessarily apply under all possible conditions. In addition, the District requests clarification that although the Carquinez Strait outfall is estimated to have a 44:1 initial dilution, the 26:1 estimated for Mare Island Strait is being used for both outfalls for simplicity. For these reasons, the District requests the following revisions to the TO regarding the discharge prohibition. Typographical corrections in these sections are also requested, as shown below.

(Page 7)
III. DISCHARGE PROHIBITIONS

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B. Discharge at any point at which the treated wastewater does not receive an initial dilution of at least a nominal 26:1 as described in Fact Sheet section ~~section~~ IV.C.4.b~~(2)(d)~~ is prohibited.

(Page F-11)

A. Discharge Prohibitions

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2. Discharge Prohibition III.B (Discharge at any point at which ~~of~~ treated wastewater ~~that~~ does not receive an ~~minimum~~ initial dilution of a nominal 26:1 as described in Fact Sheet section IV.C.4.b is prohibited: The ammonia WQBELs in this Order are calculated to protect beneficial uses based on a conservative estimate of actual initial dilution of 26:1 (see Fact Sheet section IV.C.4.b~~(2)(d)~~). ~~These WQBELs would not be protective of water quality if the discharge did not actually achieve at least a 26:1 minimum initial dilution.~~

(Page F-24)

(3) Ammonia. For ammonia, a conservative estimated actual initial dilution was used to calculate the effluent limitations. This is justified because ammonia, a non-persistent pollutant, quickly disperses and degrades to a non-toxic state, and cumulative toxicity effects are unlikely. In the Mixing Zone Study Report (Vallejo Sanitation and Flood Control District, 2011), the Discharger developed dilution estimates for the Facility's discharges from Discharge Point Nos. 001 and 002. The Facility has a dry weather design capacity of 15.5 MGD with an average dry weather discharge rate of ~~10.8~~9.4 MGD. Flows are discharged from Discharge Point No. 001 until wet weather flows exceed ~~35~~30 MGD. When wet weather flows exceed ~~35~~30 MGD, the excess flow is discharged from Discharge Point No. 002. The study estimated the actual initial dilution ratio at Discharge Point No. 001 to be 41:1 (D = 40), and at Discharge Point No. 002 to be 26:1 (D = 25). For simplicity and with concurrence by the Discharger, this Order establishes the more conservative dilution of 26:1 to achieve compliance with water quality objectives.

2. The District requests revisions to the total ammonia effluent limits, based on corrected background concentrations.

The District has reviewed the calculations for water quality based effluent limits for total ammonia, as presented in the Fact Sheet of the TO, and noticed inconsistencies with the RMP station being used. Data from the Napa River RMP station (BD50) located in Mare Island Strait has been used to develop the water quality criteria for total ammonia, but data from the Yerba Buena RMP station (BC10) is used for the background concentrations of total ammonia, which effect the effluent limits calculations. Revising the effluent limits calculations based on data from the Napa River RMP station produces slightly higher total ammonia effluent limits. There are also a few typographical errors that have been noted in the table of effluent limits calculations (Table F-8). Therefore, the District requests the following revisions:

(Page 9)

Table 7. Effluent Limitations for Toxic Pollutants

Parameter	Units	Final Effluent Limitations[(1)]	
		Average Monthly Effluent Limit (AMEL)	Maximum Daily Effluent Limit (MDEL)
Cyanide	µg/L	19	40
Copper	µg/L	89	119
Total Ammonia, as N	mg/L	~~43~~45	~~85~~88
Dioxin-TEQ	µg/L	1.4×10^{-8}	2.8×10^{-8}

(Page F-18)

c. Ambient Background Data. Ambient background values are used in the RPA and in the calculation of effluent limitations. For the RPA, ambient background concentrations are the observed maximum detected water column concentrations. The SIP states that, for calculating WQBELs, ambient background concentrations are either the observed maximum ambient water column concentrations or, for objectives intended to protect human health from carcinogenic effects, the

arithmetic mean of observed ambient water concentrations. The RMP station at Yerba Buena Island, located in the Central Bay, has been monitored for most of the inorganic (CTR constituent numbers 1–15) and some of the organic (CTR constituent numbers 16–126) toxic pollutants, and these data were used as background data in performing this RPA, except for ammonia. Ambient background data from the Napa River RMP station (BD50) has been used for total ammonia in the RPA and for calculating effluent limits, consistent with the calculation of the water quality objectives for total ammonia.

(Page F-20)

Table F-8. Summary of RPA Results

CTR #	Priority Pollutants	MEC or Minimum DL (1),(2) (µg/L)	Governing Water Quality Objective (WQO)/WQC (µg/L)	Maximum Background or Minimum DL (1),(2) (µg/L)	RPA Results (3)
⋮	⋮	⋮	⋮	⋮	⋮
	Total Ammonia (mg/L N)	**32**	**1.7**	**~~0.43~~0.16**	**Yes**

(Pages F-26 and F-27)

(c) WQBELs. The most stringent total ammonia WQBELs, calculated according to SIP procedures using a CV of 0.38 and a dilution of 26:1 (D = 25), are an AMEL of ~~43~~45 mg/L and an MDEL of ~~85~~88 mg/L. Statistical adjustments were made to the WQBEL calculations because:

(Pages F-28 through F-30)

Table F-9. WQBEL Calculations

PRIORITY POLLUTANTS	⋮	Total Ammonia (acute)	Total Ammonia (chronic)
Units	⋮	**mg/L as N**	**mg/L as N**
Basis and Criteria type	⋮	Basin Plan Aquatic Life	Basin Plan Aquatic Life
Criteria -Acute	⋮	4.9	-----
Criteria -Chronic	⋮	-----	1.70
SSO Criteria -Acute	⋮	-----	-----
SSO Criteria -Chronic	⋮	-----	-----
Water Effects ratio (WER)	⋮	1	1
Lowest Water Quality Objective	⋮	4.9	1.70
Site Specific Translator - MDEL	⋮	-----	-----
Site Specific Translator - AMEL	⋮	-----	-----
Dilution Factor (D) (If Applicable)	⋮	~~20~~25	~~20~~25
No. Of Samples Per Month	⋮	4	30
Aquatic Life Criteria Analysis Required? (Y/N)	⋮	Y	Y
HH Criteria Analysis Required? (Y/N)	⋮	N	N
	⋮		
Applicable Acute Water Quality Objective	⋮	~~4.53~~ 4.9	-----

Applicable Chronic Water Quality Objective		-----	~~1.10~~ 1.7
HH criteria		-----	-----
Background (Maximum Conc. for Aquatic Life calc)		~~0.43~~ 0.16	~~0.14~~ 0.9
Background (Average Conc. for Human Health calc)		-----	-----
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?		N	N
ECA acute		~~117~~ 123	-----
ECA chronic		-----	~~41~~ 42
ECA HH		-----	-----
No. of data points <10 or at least 80 percent of data reported non detect? (Y/N)		N	N
Avg of effluent data points		12	12
Std Dev of effluent data points		4.59	4.59
CV calculated		0.38	0.38
CV (Selected) - Final		0.38	0.38
ECA acute mult99		0.46	-----
ECA chronic mult99		-----	0.96
LTA acute		~~53~~ 56	-----
LTA chronic		-----	~~39~~ 40
minimum of LTAs		~~53~~ 56	~~39~~ 40
AMEL mult95		1.3	1.1
MDEL mult99		2.2	2.2
AMEL (aq life)		~~71~~ 75	~~43~~ 45
MDEL(aq life)		~~117~~ 123	~~85~~ 88
MDEL/AMEL Multiplier		1.6	2.0
AMEL (human hlth)		----	----
MDEL (human hlth)		----	----
minimum of AMEL for Aq. life vs HH		~~71~~ 75	~~43~~ 45
minimum of MDEL for Aq. Life vs HH		~~117~~ 123	~~85~~ 88
Current limit in permit (30-day average)		-----	-----
Current limit in permit (daily)		-----	-----
Final limit - AMEL		~~71~~ 75	~~43~~ 45
Final limit - MDEL		~~117~~ 123	~~85~~ 88
Max Effl Conc (MEC)		32	32

3. The District requests revision of the chronic toxicity requirement to ensure clarity of Permit requirements and expectations in the enforceable part of the Permit.

The District understands that meeting the Basin Plan water quality objectives for chronic toxicity requires the use of routine and accelerated effluent monitoring. To clarify the Permit requirements and expectations for meeting the chronic toxicity water quality objectives with such

monitoring, the District requests the language below. This language is consistent with the parallel sections in the recent permit for the City of Petaluma, as well as the TOs recently issued for three other Bay Area agencies: the East Bay Dischargers Authority, the City of Livermore, and the Dublin San Ramon Services District.

(Page 10)

a. The discharge shall not contain chronic toxicity at a level that would cause or contribute to toxicity in the receiving water. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, or any other relevant measure of the health of an organism population or community. Compliance with this limitation shall be determined by analyses of indicator organisms and toxicity tests. This limitation applies to Discharge Point Nos. 001 and 002, and compliance shall be measured at Monitoring Location EFF-001 as described in MRP (Attachment E) section V.B.

b. Compliance with the Basin Plan narrative toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated effluent meeting test acceptability criteria:

(1) Conduct routine monitoring.

(2) Conduct accelerated monitoring after exceeding a three-sample median of 10 chronic toxicity unit (TU_c[1]) or a single-sample maximum of 20 TU_c or greater.

(3) Return to routine monitoring if accelerated monitoring does not exceed the "trigger" in (2), above.

(4) If accelerated monitoring confirms consistent toxicity in excess of either "trigger" in (2), above, initiate toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE) procedures in accordance with Section V.B.3. of the MRP (Attachment E).

(5) Return to routine monitoring after appropriate elements of TRE workplan are implemented and either the toxicity drops below the "trigger" levels in (2), above, or based on the results of the TRE, the Executive Officer authorizes a return to routine monitoring.

c. The Discharger shall monitor chronic toxicity using the test species and protocols specified in MRP section V.B (Attachment E). The Discharger shall also perform chronic toxicity screening phase monitoring as described in Appendix E-1 of the MRP.

[*Footnote*]

[1] A TUc equals 100 divided by the no observable effect level (NOEL). The NOEL is determined from IC, EC, or NOEC values. These terms, their usage, and other chronic toxicity monitoring program requirements are defined in more detail in the MRP (Attachment E).

4. The District requests that the Regional Standard Provisions section be revised to clarify sections of Attachment G that are no longer applicable.

The District is not able to follow certain requirements of Attachment G, specifically those relating to submittals to www.wbers.net. We understand per the June 2, 2011, email from Gina Kathuria (Subject: *Water Board SSO and MWTP Online Reporting Program wbers.net Will Be Terminated Effective on July 1, 2011*) that the Regional Water Board staff no longer requires 2-hour notification of unauthorized discharges separate from that given to the California Emergency Management Agency. Therefore, the District requests the following revisions:

(Page 11)

VI. PROVISIONS

A. Standard Provisions

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2. **Regional Standard Provisions.** The Discharger shall comply with all applicable items of the Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits (Attachment G), including amendments thereto. Attachment G, section V.C.1.h, "Reporting data in electronic format," shall not apply. Regarding Section V.E.2, "Unauthorized Discharges from Municipal Wastewater Treatment Plants," no reports shall be submitted to www.wbers.net. Instead, 2-hour notification to the California Emergency Management Agency shall constitute 2-hour notification and 24-hour certification to the Regional Water Board; and the Discharger shall submit 5-day reports in hard copy to the Regional Water Board case manager.

5. The District requests that references to "spills" be revised to "sanitary sewer overflows" for consistency in language usage.

The TO includes "spills" and "sewage spills" to refer to sanitary sewer overflows, although the term "sanitary sewer overflow" is used elsewhere. For consistency in the Sanitary Sewer Overflows section, the District requests the revisions below.

(Pages 18-19)

c. Sanitary Sewer Overflows and Sewer System Management Plan

⋮

The General Waste Discharge Requirements for Wastewater Collection Agencies (General Collection System WDRs), State Water Board Order No. 2006-0003 DWQ, has requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. While the Discharger must comply with both the General Collection System WDRs and this Order, the General Collection System WDRs more clearly and specifically stipulate requirements for operation and maintenance, and for reporting and mitigating sanitary sewer overflows.

Implementation of the General Collection System WDRs requirements for proper operation and maintenance and mitigation of ~~spills~~ sanitary sewer overflows will satisfy the corresponding federal NPDES requirements specified in Attachment D (as

supplemented by Attachment G) of this Order. Following notification and reporting requirements in the General Collection System WDRs will satisfy NPDES reporting requirements specified in Attachment D (as supplemented by Attachment G) of the Order for ~~sewage spills from the collection system~~ sanitary sewer overflows upstream of the Plant boundaries. Attachments D and G of this Order specify reporting requirements for unauthorized discharges from anywhere within the Plant downstream of the Plant boundaries.

6. The District requests that bypass monitoring requirements be removed from Table E-3 because they are redundant with requirements in Attachment G.

The District is already required to monitor and record the volume and start and end times of bypasses pursuant to Attachment G, Section IV.B.5. Redundant information and requirements would increase the chances that the same information in two different places will be inconsistent and it will also create confusion in implementing the Permit. The District requests the following revisions:

(Page E-3 and E-4)
IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

The Discharger shall monitor the treated wastewater at EFF-001 as follows:

Table E-3. Effluent Monitoring, EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Rate[1]	MGD	Continuous	Continuous
~~Volume of Wastewater that bypasses biological treatment [1a]~~	~~MG~~	~~n/a~~	~~Each bypass event~~
~~Start Time and Date of Biological Treatment Bypass[1a]~~	~~n/a~~	~~n/a~~	~~Each bypass event~~
~~End Time and Date of Biological Treatment Bypass~~	~~n/a~~	~~n/a~~	~~Each bypass event~~
CBOD[2]	mg/L	C-24	2/Week
TSS[2]	mg/L	C-24	2/Week
Oil and Grease[3]	mg/L	Grab	1/Month
pH[4]	s.u.	Continuous	Continuous
Chlorine, Total Residual[5]	mg/L	Continuous	Continuous
Enterococcus Bacteria	MPN/100mL	Grab	2/Week
Temperature	°C	Grab	1/Day
Dissolved Oxygen	mg/L & % saturation	Grab	1/Day
Total Ammonia[6]	mg/L as N	C-24	1/Month
Acute Toxicity[7]	% survival	C-24	1/Month
Chronic Toxicity[8]	TUc	C-24	1/Quarter

Parameter	Units	Sample Type	Minimum Sampling Frequency
Cyanide, Total	µg/L	Grab	1/Month
Copper	µg/L	C-24	1/Month
2,3,7,8-TCDD & Congeners	pg/L	Grab	2/Year
1,2-Diphenylhydrazine	µg/L	Grab	1/5 Years
Remaining Priority Pollutants	µg/L	Grab	Once per permit term
Standard Observations[9]	--	--	1/Month

Footnotes to Table E-3:

Units:

MGD = million gallons per day
mg/L = milligrams per liter
s.u. = standard units
MPN/100 mL= Most Probable Number/100 mL
°C = degree Celsius
µg/L = micrograms per liter
C-24 = 24-hour composite

TU_c = chronic toxicity units, equal to 100/NOEL, where NOEL = IC_{25}, EC_{25}, or NOEC as discussed in the MRP (Attachment E)

(1) For effluent flows, the following information shall also be reported monthly:
Daily:Daily average flow (MGD)
Monthly: Monthly average flow (MGD)
Daiily: Maximum daily flow (MGD)
Dailly: Minimum daily flow (MGD)

~~(1a) During Blending: Volume of primary-treated wastewater that bypasses biological treatment (MG)~~
~~During Blending: Start time and date of biological treatment bypass~~
~~During Blending: End time and date of biological treatment bypass~~

(2) The percent removal for CBOD and TSS shall be reported for each calendar month in accordance with Effluent Limitation IV.A.2.

(3) Each oil and grease sampling and analysis shall be conducted in accordance with USEPA Method 1664.

(4) If pH is monitored continuously, the minimum and maximum pH values for each day shall be reported in monthly self-monitoring reports.

(5) Chlorine residual shall be monitored continuously or, at a minimum, every hour. The Discharger shall report, on a daily basis, both maximum and minimum concentrations. If continuous monitoring is used, the Discharger may record discrete readings from the continuous monitoring every hour on the hour and report, on a daily basis, the maximum concentration observed following dechlorination. Total chlorine dosage (kg/day) shall be recorded on a daily basis.

(6) Monitoring for total ammonia shall occur concurrently with monitoring for temperature and pH in order to provide for determination of the un-ionized ammonia fraction.

(7) Acute bioassay test shall be performed in accordance with section V.A of this MRP.

(8) Critical Life Stage Toxicity Test shall be performed and reported in accordance with the Chronic Toxicity Requirements specified in section V.B of this MRP.

(9) Standard observations are specified in the Regional Standard Provisions (Attachment G).

7. The District requests revision of Oil and Grease monitoring to once per quarter, consistent with requirements for other similar agencies.

Over the last four years the District has demonstrated excellent plant performance with respect to oil and grease, with 94% of effluent oil and grease samples below the reporting level of 5 mg/L and all samples well below the maximum daily effluent limitation of 20 mg/l in the current permit. As compared to quarterly monitoring, monitoring monthly for oil and grease provides the Regional Water Board with no significant additional information and instead adds an

unnecessary burden to the District. In addition, recent NPDES permits for the Napa Sanitation District and Fairfield-Suisun Sewer District, agencies that operate with permitted flows similar to the District, require quarterly effluent monitoring for oil and grease. The District thus requests the following revision:

(Page E-3)

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

The Discharger shall monitor the treated wastewater at EFF-001 as follows:

Table E-3. Effluent Monitoring, EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Rate(1)	MGD	Continuous	Continuous
Volume of Wastewater that bypasses biological treatment (1a)	MG	n/a	Each bypass event
Start Time and Date of Biological Treatment Bypass(1a)	n/a	n/a	Each bypass event
End Time and Date of Biological Treatment Bypass	n/a	n/a	Each bypass event
CBOD(2)	mg/L	C-24	2/Week
TSS(2)	mg/L	C-24	2/Week
Oil and Grease(3)	mg/L	Grab	~~1/Month~~ 1/Quarter
pH(4)	s.u.	Continuous	Continuous
Chlorine, Total Residual(5)	mg/L	Continuous	Continuous
Enterococcus Bacteria	MPN/100mL	Grab	2/Week
Temperature	°C	Grab	1/Day
Dissolved Oxygen	mg/L & % saturation	Grab	1/Day
Total Ammonia(6)	mg/L as N	C-24	1/Month
Acute Toxicity(7)	% survival	C-24	1/Month
Chronic Toxicity(8)	TUc	C-24	1/Quarter
Cyanide, Total	µg/L	Grab	1/Month
Copper	µg/L	C-24	1/Month
2,3,7,8-TCDD & Congeners	pg/L	Grab	2/Year
1,2-Diphenylhydrazine	µg/L	Grab	1/5 Years
Remaining Priority Pollutants	µg/L	Grab	Once per permit term
Standard Observations(9)	--	--	1/Month

8. The District requests revision of the Chronic Toxicity Reduction Evaluation (TRE) Work Plan requirements for clarity and consistency.

The District finds the TRE Work Plan requirements in the TO to be unclear and impractical to implement. Detecting persistent toxicity requires conducting a TRE, but such detection can occur only if results of an accelerated monitoring test have been received and reviewed to see if the test shows continued exceedance of the applicable threshold. Chronic toxicity testing and the reporting of results can take more than the 30 days allowed in the TO. Consistent with the Basin Plan, the District requests that the Permit requires the TRE Work Plan submittal and initiation following 30 days of receiving results that indicate persistent toxicity. The District specifically requests the following revisions:

(Page E-8)

3. Chronic Toxicity Reduction Evaluation (TRE)

⋮

b. *Specific TRE Work Plan.* Within 30 days of ~~the date of completion of the~~ receiving results of an accelerated monitoring test that shows continued exceedance of ~~testsexceeding~~ either trigger for accelerated monitoring, the Discharger shall submit a specific TRE work plan to the Regional Water Board, which shall be the generic work plan revised as appropriate for the toxicity event after consideration of available discharge data.

c. *Initiate TRE.* Within 30 days ~~the date of completion of the~~ receiving results of an accelerated monitoring test~~s~~ that shows continued exceedance of ~~observed to exceed~~ either trigger, the Discharger shall initiate a TRE in accordance with a TRE work plan that addresses any and all comments from the Executive Officer.

9. The District requests revision of pretreatment monitoring requirements to collect grab samples for most constituents, consistent with the District's current practices.

The District currently collects grab samples for pretreatment monitoring, consistent with requirements of Attachment G and the Mercury Watershed Permit. The requirement to collect multiple grab samples for these compounds would not provide significant additional information to the Regional Water Board and would instead impose additional burden on the District and not be a practical use of staff resources. Single grab samples are also consistent with the monitoring and reporting efficiency goals that drove the recent revisions to Attachment H, the Pretreatment Program Provisions. Additionally, the pretreatment monitoring requirements in the recent permits for the Napa Sanitation District and City of American Canyon allow for grab samples for organic compounds, hexavalent chromium, and cyanide. In addition, since mercury is separately regulated under the Mercury Watershed Permit, the District requests including mercury as a separate line item, also as a grab sample consistent with the District's current practice and requirements in the Mercury Watershed Permit, as well as the TOs recently issued for the East Bay Dischargers Authority, the City of Livermore, and the Dublin San Ramon Services District. The District agrees with collecting 24-hour composite samples for metals, as long as total chromium is allowed to be substituted for hexavalent chromium, as footnote 3 in the TO currently allows.

The District requests that pretreatment monitoring sampling requirements be revised for consistency with current monitoring practices and similar requirements in other recent Bay Area NPDES permits and tentative orders as follows:

(Page E-9)

Table E-5. Pretreatment and Biosolids Monitoring Requirements

Constituents	Sample Locations and Frequencies[1]			Sample Type	
	INF-001	EFF-001	Biosolids	INF-001	Biosolids
Volatile Organic Compounds (VOC)	2/Year	2/Year	2/Year	~~multiple~~ grab~~s~~ [~~3a~~]	grabs[~~3~~b2a]
Base/Neutrals and acids extractable organic compounds (BNA)	2/Year	2/Year	2/Year	~~multiple~~ grab~~s~~ [~~2a~~]	grabs [2~~b~~a]
Hexavalent Chromium[3]	1/Month	1/Month	2/Year	~~multiple~~ grab~~s~~ [~~2a~~]	grabs [2~~b~~a]
Metals[4]	1/Month	1/Month	2/Year	~~multiple grabs~~24-hr Composite [2~~c~~b]	grabs [2~~b~~a]
Mercury	1/Month	1/Month	2/Year	grab	grabs [2a]
Cyanide	1/Month	1/Month	2/Year	~~multiple~~ grab~~s~~ [~~2c~~]	grabs [2~~b~~a]

[1] The Discharger may elect to use the influent, and effluent monitoring conducted in accordance with Tables E-2, E-3, and E-4 to satisfy these pretreatment requirements, and sampling shall be conducted at whichever frequency is greater.

[2] ~~Sample types:~~

~~a. Multiple grab samples for VOC, BNA, hexavalent chromium, and cyanide must consist of a minimum of four discrete grab samples, collected at equal intervals spaced over the course of a 24-hour period, with each grab sample analyzed separately and the results mathematically flow-weighted, or with all grab samples combined (volumetrically flow-weighted) prior to analysis.~~

~~b~~a. The biosolids sample shall be a composite of the biosolids to be disposed. Biosolids collection and monitoring shall comply with the requirements specified in Attachment H, Appendix H-4. The Discharger shall also comply with the biosolids monitoring requirements of 40 CFR 503.

~~c~~b. If an automatic compositor is used, the Discharger shall obtain 24-hour composite samples through flow-proportioned composite sampling. Alternatively, 24-hour composite samples may consist of discrete grab samples combined (volumetrically flow-weighted) prior to analysis or mathematically flow-weighted.

[3] The Discharger may elect to report total chromium instead of hexavalent chromium. Samples collected for total chromium measurements shall be 24-hour composites.

[4] The metals are arsenic, cadmium, copper, lead, ~~mercury,~~ nickel, silver, zinc, and selenium.

10. The District requests removing the requirement to include "Estimated Concentration" with estimated laboratory results as the requirement is unnecessary and impractical.

The MRP already requires the District to report sample results less than the reporting level as "Detected, but Not Quantified," or "DNQ." Adding "Estimated Concentration" or "Est. Conc." next to the chemical concentration is redundant, burdensome, and adds to the number of characters that must be entered into the electronic reporting system, which has limits on total characters in a cell. Therefore, the District requests the following revision:

(Page E-12)

4. **ML and MDL Reporting.** The Discharger shall report with each sample result the Reporting Level (RL) and Method Detection Limit (MDL) as determined by the procedure in 40 CFR 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ ~~as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.")~~. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means the laboratory considers appropriate.

11. The District requests consistency in the references to approving the Mare Island Strait outfall for use under year-round conditions.

The District supports the multiple references in the TO that "Upon Executive Officer approval pursuant to Section VI.C.2.c of this Order, wastewater may be discharged through Discharge Point No. 002 under year-round conditions" however the Fact Sheet is not entirely consistent. Also, the Fact Sheet language differs in the description of the planned change from other sections of the Permit, including the last paragraph of Section II.A of the Fact Sheet. For these reasons, the District requests the following revisions:

(Page F-7 and F-8)

E. Planned Changes

The Discharger plans to investigate the possibility of ~~changing their main discharge point from the Carquinez Strait outfall (Discharge Point 001)~~ discharging to the Mare Island Strait outfall (Discharge Point 002) under year-round conditions. This would require improvement of the Mare Island Strait outfall to continue to achieve a dilution ratio of 26:1 at design effluent flows. Approval of the Executive Officer ~~A permit modification~~ would be required to begin discharging to Mare Island Strait year-round. The Discharger plans to study the technical and financial feasibility of this project further before implementing it.

(Page F-34)

VII. RATIONALE FOR PROVISIONS

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C. Special Provisions (Provision VI.C)

⋮

2. Special Studies and Additional Monitoring Requirements

⋮

[The following revisions are also included in Comment 5:]

c. Mare Island Strait Diffuser Upgrade. This provision is required to support the Discharger possibly using the Mare Island Strait outfall (Discharge Point 002) ~~as its main~~ for discharges under year-round conditions ~~point~~ (currently allowed only for Discharge Point 001 at Carquinez Strait). This would require improving the Mare Island Strait outfall to achieve an initial dilution of at least 26:1 at the

Plant's design flow. The Discharger plans to do further analysis of the technical and financial feasibility of this project before proceeding. This provision requires the Discharger to submit documentation ~~demonstrtating~~ demonstrating the following:

The remaining comments below pertain to typographical errors contained in the TO and indicate the District's requested corrections.

12. ***Revision to Page 2:***
"Tables", the heading to the Table of Tables, should be bold.

13. ***Revision to Page 21:***
Table 10. Cyanide Action Plan

Task	Compliance Date
1. Review Potential Cyanide Contributors The Discharger shall submit an inventory of potential cyanide sources to the treatment plant (e.g., metal plating operations, hazardous waste recycling, etc.) If no cyanide sources are identified, Tasks 2 and ~~3~~4 are not required, unless the Discharger receives a request to discharge detectable levels of cyanide to the sewer. If so, the Discharger shall notify the Executive Officer and implement Tasks 2 and ~~3~~4.	Completed October 23, 2008
⋮	⋮

14. ***Revisions to Page E-4:***
Table E-3. Effluent Monitoring, EFF-001
⋮
Footnotes to Table E-3:
⋮
(1) For effluent flows, the following information shall also be reported monthly:
Daily: Daily average flow (MGD)
Monthly: Monthly average flow (MGD)
Dai~~l~~ly: Maximum daily flow (MGD)
Dai~~l~~ly: Minimum daily flow (MGD)

15. ***Revision to Page E-9:***
VII. PRETREATMENT AND BIOSOLIDS REQUIREMENTS

The Discharger shall comply with the pretreatment requirements specified below for ~~both~~ influent (at Monitoring Location INF-001), effluent (at Monitoring Location EFF-001), and biosolids monitoring. The Discharger shall report summaries of analytical results in annual and semi-annual pretreatment reports in accordance with Attachment H. At its option, the Discharger may also report biosolids analytical results in its eSMR by manual entry, by EDF/CDF, or as an attached file.

16. ***Revisions to Page E-17:***
Table AE-3. Toxicity Test Requirements for Stage One Screening Phase

Requirements	Receiving Water Characteristics		
	Discharges to Coast	Discharges to San Francisco Bay(2)	
	Ocean	Marine/Estuarine	Freshwater

Taxonomic diversity	1 Plant 1 invertebrate 1 fish	1 Plant 1 invertebrate 1 fish	1 Plant 1 invertebrate 1 fish
Number of tests of each salinity type: Freshwater[1] *[Hard return]* Marine/Estuarine	*[Hard return]* 0 4	*[Hard return]* 1 or 2 3 or 4	*[Hard return]* 3 0
Total number of tests	4	5	3

Footnotes to Table AE-3:

1. The freshwater species may be substituted with marine species if:
   a. The effluent salinity is above 1 part per thousand (ppt) greater than 95 percent of the time, or
   b. The effluent ionic strength (TDS or conductivity) at the test concentration used to determine compliance is documented to be toxic to the test species.
2. a. Marine/Estuarine refers to receiving water salinities greater than 1 ppt at least 95 percent of the time during a normal water year.
   b. Freshwater refers to receiving water with salinities less than 1 ppt at least 95 percent of the time during a normal water year.

17. ***Revision to Page F-1:***

18. ***Revision to Page F-3:***

I. PERMIT INFORMATION

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B. The Plant discharges wastewater to Carquinez Strait (Discharge Point No. 001) and Mare Island Strait (Discharge Point No. 002), both waters of the United States, and is currently regulated under Order No. R2-2006-0056, which was adopted on ~~April 9~~ August 9, 2006, and expired on September 30, 2011. The terms of the previous Order automatically continued after the permit expiration date.

19. ***Revisions to Page F-4:***

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment

The Plant provides secondary treatment of wastewater from domestic and commercial sources within the City of Vallejo, the former Mare Island Naval Facility, and an adjacent unincorporated area. The Discharger's service area population is

approximately 117,000 people. The Plant has an average dry weather design capacity of 15.5 MGD and a wet weather capacity of 35 MGD for full secondary treatment, with an additional 25 MGD primary treatment capacity. The maximum wet weather capacity is 60 MGD. The average dry weather flow in 2010 was ~~10.5~~ 9.3 MGD. The maximum daily wet weather flow between October 2006 and December 2010 was 43.3 MGD.

The Discharger's wastewater collection system includes about 435 miles of sanitary sewer lines, and ~~36~~ 26 pump stations. In 2005 and 2006, the Discharger completed significant capital improvement projects to the collection system to eliminate sanitary sewer overflows from two constructed wet weather overflow structures, the Sears Point Pump Station Overflow and the Ryder Street Overflow. The improvements included a 3 million gallon (MG) underground storage tank constructed to eliminate sanitary sewer overflows from the Sears Pump Station, and an 8.6 MG storage facility adjacent to the Plant to eliminate sanitary sewer overflows from the Ryder Street Pump Station. In addition to eliminating sanitary sewer overflows from these two locations, the Discharger intends to operate the pump station storage basins, when possible, in a manner similar to equalization basins to reduce blending at the Plant.

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~~T.~~ During wet weather conditions, flows up to approximately 35 MGD receive full secondary treatment.

20. ***Revision to Page F-5:***

2. Discharge Point No. 002, Mare Island Strait. Secondary-treated, disinfected, and dechlorinated wastewater is discharged to Mare Island Strait when wet weather peak flows are greater than 30 MGD, when the hydraulic capacity of Discharge Point No. 001 has been exceeded, or as approved by the Executive Officer. The discharge is through a submerged diffuser about 100 feet from the east shore of Mare Island Strait, and receives an initial dilution of at least 26:1. During the period from October 2006 through December 2010, ~~18~~ 17 discharge events occurred from Discharge Point No. 002. The following table presents the dates on which the discharges occurred and the volume of effluent discharged.

21. ***Revision to Page F-6:***

Table F-4. Previous Effluent Limitations and Monitoring Data from Discharge Point Nos. 001 and 002

Parameter	Units	Effluent Limitations			Monitoring Data (From May 2007-November 2011)		
		Monthly Average	Weekly Average	Daily Maximum	Highest Monthly Average	Highest Weekly Average	Highest Daily Discharge
Carbonaceous Biochemical Oxygen Demand (5-day @ 20 Deg. C) (CBOD)	mg/L	25	40	---	15	22	---
Total Suspended Solids (TSS)	mg/L	30	45	---	19	22	---
pH	s.u.	6.0-9.0			6.4 - 7.8		
Oil and Grease	mg/L	10	---	20	~~6.5~~ 5.7	---	7.1

Total Residual Chlorine	mg/L	---	---	0.0	---	---	ND
Copper[(1)]	µg/L	66	--	49	9.6	---	10
Cyanide[(2)]	µg/L	19	--	40	4.8	---	4.8

22. ***Revision to Page F-7:***

Table F-4. Previous Effluent Limitations and Monitoring Data from Discharge Point Nos. 001 and 002

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Footnotes to Table F-4:

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[(2)] ~~--~~ On July 22, 2008, USEPA approved a cyanide site-specific objective for San Francisco Bay, making the previous Order's alternative cyanide effluent limitations effective, as shown in this table.

23. ***Revision to Page F-9:***

Table ~~F-6~~ F-5 lists the beneficial uses of Carquinez Strait and Mare Island Strait specifically identified in the Basin Plan.

24. ***Revisions to Page F-14:***

2. Effluent Limitations for Conventional and Non-Conventional Pollutants

This Order retains the effluent limitations for conventional and non-conventional pollutants from the previous Order. The basis for these limitations is explained below.

a. CBOD and TSS. Secondary treatment standards from 40 CFR 133 for CBOD and TSS, including the 85 percent removal requirement, are technologically feasible for secondary wastewater treatment technologies. NPDES regulations at 40 CFR 122.45(d) specify that discharge limitations for publically-owned treatment works are to be stated as average weekly limitations and average monthly limitations, unless impracticable. CBOD and TSS effluent limitations are representative of the level of treatment the Plant should be able to meet. Therefore, the average monthly percent removal of CBOD and TSS is not to be less than 85 percent. These technology-based limitations are ~~from~~ the same as the previous Order.

b. pH. The effluent limitations for pH are based on secondary treatment standards from 40 CFR 133 and on Basin Plan Table 4-2 for deep water dischargers. These limitations are ~~from~~ the same as the previous Order.

c. Total Residual Chlorine. The residual chlorine effluent limitation is based on Basin Plan Table 4-2 and is consistent with the previous Order. The allowance for determination of false positives using continuous devices is based on the fact that continuous instruments occasionally will have anomalous spikes, and it is chemically improbable to have free chlorine present in the presence of sodium bisulfite.

d. Oil and Grease. The oil and grease effluent limitations are required by Basin Plan section 4.5.5.1 and Basin Plan Table 4-2 for all discharges to inland surface waters and enclosed bays and estuaries of the San Francisco Bay Region. These limitations are ~~from~~ the same as the previous Order.

e. Enterococcus Bacteria. The enterococcus bacteria effluent limitation is based on Basin Plan Table 4-2A

25. ***Revisions to Page F-17:***

f. Site-Specific Metal Translators…

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Basin Plan Table 7.2.1-2 establishes site-specific metal translators for copper for deep water discharges north of the Dumbarton Bridge. Site-specific nickel translators are available for deep water discharges to San Francisco Bay (*North of Dumbarton Bridge Copper and Nickel Development and Selection of Final Translators* [2005]). These translators are based on samples from four sampling events at thirteen stations between 2000 and 2001. The previous Order included nickel translators based on this translator study. This Order retains the site-specific translators from the previous Order for nickel and uses site-specific metal translators for copper from Basin Plan Table 7.2.1-2, as shown in Table ~~F-8~~ F-7, below.

26. ***Revisions to Page F-22:***

(2) Pollutants with no Reasonable Potential. WQBELs are not included in this Order for constituents that do not demonstrate Reasonable Potential; however, monitoring for such pollutants is still required. If concentrations of these constituents are found to have increased significantly, this Order requires the Discharger to investigate the sources of the increase (see Provision VI.C.2.a and Provision VI.C.3.b(3) of this Order). This Order also requires the Discharger to implement remedial measures if the increases pose a threat to water quality in the receiving water (see Provision VI.C.3.b~~(3)~~(4) of this Order).

27. ***Revisions to Page F-35:***

(3) The upgraded diffuser and outfall have been constructed as designed and are available for use; and

~~**(4) The Operations and Maintenance Manual and to the Contingency Plan have been updated to include the new diffuser and outfall facilities.**~~

(4) The Operations and Maintenance Manual and to the Contingency Plan have been updated to include the new diffuser and outfall facilities.

28. ***Revisions to Page G-2:***

Table of Contents

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29. ***Revisions to Page G-17:***

IV. STANDARD PROVISIONS – RECORDS

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~~A.~~ B. Records of monitoring information shall include