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Protecting public health and the San Francisco Bay since 1952.

July 6, 2006

Via Email and Hand Delivery

San Francisco Bay
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

COMMENTS ON TENATIVE ORDER FOR NPDES PERMIT NO. CA-0037699

ATTN: MR. BRUCE WOLFE, EXECUTIVE OFFICER

Enclosed are the comments by Vallejo Sanitation and Flood Control District on the tentative order for NPDES Permit No. CA-0037699. Please consider our suggestions for change to the tentative order language during this development of the final document for approval.

Thank you for the willingness to discuss and consider the various concerns of the District.

VALLEJO SANTITATION AND FLOOD CONTROL DISTRICT

RONALD J. MATHESON
District Manager

Vallejo Sanitation and Flood Control District
2006 NPDES Permit Renewal

Detailed Comments on Vallejo Tentative Order
July 7, 2006

Comments on the Vallejo Sanitation and Flood Control District tentative order are shown below in the order they appear in the permit:

1. (Page 6) Since the sanitary sewer overflow (SSO) provision acknowledges the adoption of the statewide SSO waste discharge requirements (WDR) on May 2, 2006, the third prohibition should be revised as agreed at a meeting on June 27 follows:

    C. The bypass of untreated or partially treated wastewater to waters of the State, at the Facility, is prohibited, except as provided for bypasses under the conditions stated in 40 CFR 122.41(m)(4), in A.13 of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* (Attachment I).

2. (Page 12) The District requests that the surface water limitations be changed to be neutral regarding the subsequent action that would be taken if water quality standards are changed. Language should be revised as agreed to at a meeting on June 27 follows:

    4. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Clean Water Act and regulations adopted thereunder. If new applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board may reopen and modify this Order in accordance with such standards.

3. (page 14) The District requests that the Final Report for the Ambient Background Receiving Water Monitoring have language consistent with the previous paragraph as follows (and agreed to on June 27):

    c. Ambient Background Receiving Water Monitoring. The Discharger shall continue to collect or participate in collecting background ambient receiving water data with other dischargers and/or through the Regional Monitoring Program. This information is required to perform RPAs and to calculate effluent limitations. To fulfill this requirement, the Discharger shall submit (or cause to have submitted on its behalf) data sufficient to characterize the concentration of each toxic pollutant listed in the CTR in the ambient receiving water. The data on the conventional water quality parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the ambient receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through monitoring through the Collaborative BACWA Study, or a similar ambient monitoring program for San Francisco Bay. This permit may be reopened, as appropriate, to incorporate effluent limits or other requirements based on Regional Water Board review of these data.

Final Report: The Discharger shall submit (or cause to have submitted on its behalf) a final report that presents all the data to the Regional Water Board 180 days prior to Order expiration. This final report shall be submitted with the application for permit reissuance.

4. (Page E-9) The District requests that TSS be specified as the (sole) appropriate indicator of compliance for effluent limits during blending in this permit, because BOD correlates well with TSS and is therefore redundant. In addition, the BOD 5-day test is not a practical indicator during blending because blending happens on the order of hours instead of the several days it takes to get results back from a BOD test. Please see Attachment A for a scatter plot and correlation statistic (R^2) for TSS vs. BOD. In addition, the District requests that coliform be removed from the list of parameters to analyze during blending, because coliform measured during blending has always been well below effluent limits (shown for 16 events in Attachment A), and standard operating procedures include increasing the chlorine from a routine avergae dosage of 3.0 mg/L up to 7.0 mg/L during blending. Coliform densities during blending, along with standard operating procedures for increasing chlorine dosage, are shown in Attachment A.

   In addition, there are several problems associated with performing acute toxicity testing during blending. The test requires the use of larval fish with a narrow age range, and it takes several days to obtain the fish, which is not practical with blending events because these events are normally occurring on the order of hours, not days. If the District was required to conduct acute toxicity during blending events, it would have to expend the cost to keep fish at all times and kill them each week if they were not needed, so fish would be killed more frequently than they would be used for toxicity testing. Also, the District would be performing a flow-through test (as required by our permit) and the blending event would typically be completed way before the toxicity test is over. Moreover, acute toxicity measured during the April 12, 2006 blending event gave a result of 100% survival. As a result, the District requests that acute toxicity be removed from the effluent limits to be analyzed if the TSS effluent limit is exceeded..

   The District requests that language on page E-9 be revised as follows, as agreed at a meeting on June 27:

   2. <u>Section C.2.h of Part A shall be amended as follows</u>:

      h. When any type of bypass occurs, except for bypasses that are consistent with Prohibition III.C of this Order, composite samples shall be collected on a daily basis for all constituents at all affected discharge points that have effluent limits for the duration of the bypass.

         When bypassing occurs from any treatment process (primary, secondary, chlorination, dechlorination, etc.) in the Facility that is consistent with Prohibition III.C of this Order, during high wet weather inflow, the self-monitoring program shall include the following sampling and analyses, in addition to the schedule given in this MRP:

         i. When bypassing occurs from any primary or secondary treatment unit(s), samples of the discharge shall be collected for the duration of the bypass event for TSS analysis in 24-hour composite or less increments, and continuous

monitoring of flow, chlorine residual, and grabs for pH. Samples in accordance with proper sampling techniques for all other limited pollutant parameters shall also be collected and retained for analysis if necessary. If TSS values exceed the weekly average effluent limits, analysis of the retained samples shall be conducted for pollutant constituents that have effluent limits, except toxicity, CBOD, and coliform, for the duration of the bypass, until the TSS is in compliance with the weekly effluent limitation. Holding times for these retained samples must be complied with. Additional sampling requirements in the event of a TSS effluent limit exceedance may be modified based on results from the Blending Monitoring Study in the permit (Provision C.2.a.).

ii. When bypassing the chlorination process, grab samples shall be collected at least daily for fecal coliform analyses; and continuous monitoring of flow.

iii. When bypassing the dechlorination process, grab samples shall be collected hourly for chlorine residual; and continuous monitoring of flow.

5. (Page 14) For Provision C.2.d., Mare Island Straight Receiving Water Study, the permit should indicate that monitoring will occur at E-002 (not E-001), in the table, since E-002 is the Mare Island Straight location.

6. (Page 15) For the Pollutant Minimization Program (Provision C.3.), the District requests that language be revised to reflect more realistic goals for pollutant loadings of copper, mercury, and cyanide. The District already has one of the lowest concentrations of effluent copper in the entire Bay Area, especially for a secondary wastewater treatment plant, and cyanide is an artifact of the wastewater treatment process and is not considered to have a water quality impact due to the fast degradation upon discharge to the receiving water. As a result, additional flexibility is needed to address these pollutants. Language should be revised as agreed to with Regional Water Board staff on June 27 as follows:

3. Best Management Practices and Pollution Prevention - Pollutant Minimization Program.

1) The Discharger shall continue to implement and improve, in a manner acceptable to the Executive Officer, its existing Pollutant Minimization Program to promote minimization of pollutant loadings of copper, mercury, and cyanide to the treatment plant and therefore to the receiving waters. The Discharger shall implement any applicable additional pollutant minimization measures described in the Basin Plan's implementation requirements associated with the copper SSO and cyanide SSO if and when these SSOs become effective and the alternate limits take effect.

7. (Pages 17-18) The District believes it is inappropriate to require, in advance, pollutant reductions by permittees starting July 1, 2009, in the event the cyanide site-specific objective and the mercury TMDL are not adopted by the Regional Water Board. The municipal governments around the Bay Area have contributed millions of dollars to conduct these studies, the technical work is complete, and peer review is complete. The only activity that remains is the Basin Plan Amendment adoption and approval process, over which the permittees have **no control.** This requirement will effectively punish permittees if the

Regional Water Board cannot complete the Basin Plan Amendment process in a timely fashion. Because the amendment process is not under the control of the permittees, the District requests that language be removed as follows:

4. **Compliance Schedule.** This Order grants compliance schedules for mercury and cyanide, and alternate final limits for copper and cyanide. Pursuant to Section 2.1 of the SIP and Chapter 4 of the Basin Plan, the Discharger shall (a) conduct pollutant minimization in accordance with Provision C.3., (b) participate in and support the development of a mercury TMDL, a dioxin-TEQ TMDL, a cyanide SSO, and a copper SSO. The Discharger shall submit an update to the Regional Water Board in the annual self-monitoring report to document its efforts toward development of these TMDL(s) and SSO(s). Regional Water Board staff shall review the status of TMDL development.

(Also, Page F-36)

4. **Actions for Compliance Schedule Pollutants (Provision C.4).** This provision, based on the SIP, requires that the Discharger participate in the development of a TMDL or SSO for mercury, cyanide, tributyltin, and dioxin-TEQ. In accordance with Section 2.1 of the SIP, and Chapter 4 of the Basin Plan, for the Regional Water Board to authorize compliance schedules in a permit the Discharger must, in part, propose a schedule for additional or future source control measures, pollution minimization actions, or waste treatment. In the case of mercury, cyanide, tributyltin, and dioxin-TEQ, the Discharger indicates that it proposes to achieve compliance with final limits through the SSO or TMDL process. Therefore, annual reporting on the Discharger's efforts to facilitate SSO or TMDL development along with implementation of its Pollution Minimization Plan (required by Provision C.3.a) satisfy the intent of Section 2.1 of the SIP.

8. (Page 21) The District requests that Provision C.6.c., Sanitary Sewer Overflows, be updated to be consistent with other permits, to read as follows (only replacement language is provided; not a mark-up):

c. Sanitary Sewer Overflows and Sewer System Management Plan

The Discharger's collection system is part of the facility that is subject to this Order. As such, the Discharge must properly operate and maintain its collection system (Attachment D, Standard Provisions - Permit Compliance, subsection I.D). The Discharger must report any noncompliance (Attachment D, Standard Provision - Reporting, subsections V.E.1 and V.E.2), and mitigate any discharge from the Discharger's collection system in violation of this Order (Attachment D, Standard Provisions - Permit Compliance, subsection I.C). The General Waste Discharge Requirements for Collection System Agencies (Order No. 2006-0003 DWQ) has requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Compliance with these requirements will also satisfy the federal NPDES requirements specified in this Order. Furthermore, the Discharger shall comply with the schedule for development of sewer system management plans (SSMPs) as indicated in the letter issued by the Regional Water Board on July 7, 2005, pursuant to Water Code Section 13267. Until the statewide on-line reporting system becomes operational, the Discharger shall report sanitary

sewer overflows electronically according to the Regional Water Board's SSO reporting program.

9. (Page 22) There is new compliance determination language included in a more recent version of the permit template. The District requests the following changes in that section (Section VI, page 27):

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, 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).

B. Multiple Sample Data.

When determining compliance with an AMEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C.Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D.Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E.Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection B above for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F.Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G.Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

10. (Page F-3) The District believes it is inappropriate to indicate a "permitted" wet weather flow of 60 mgd for Peak Hour Wet Weather Flow in the first table of the Fact Sheet. This misuse of standard terminology in the wastewater industry results in effectively creating a disincentive for maximizing flow through the publicly-owned wastewater treatment plant, and it is more stringent than federal law. In addition, the term "permitted flow" is customarily used to mean Average Dry Weather Design Flow (ADWDF), *not* Maximum Dry Weather Flow. In other words, the ADWDF is what the treatment plant is designed for, during dry weather. For compliance purposes, the actual flow, which is taken as an *average* over three consecutive dry weather months, is compared to the permitted flow, or ADWDF.

    Additionally, Phil Isorena, the lead person for development of the permit template at the State Water Resources Control Board, indicated by telephone on June 28, 2006 that the

reason there are two lines, one for "Facility Permitted Flow" and one for "Facility Design Flow" is that some POTWs want their permitted flow to be equal to their actual flow (which is usually less than the Average Dry Weather Design Flow), because the NPDES permit fee is based on the permitted flow. In addition, he confirmed that the permitted flow would always therefore be *less* than the design flow. The language should be revised as follows:

Facility Permitted Flow	**15.5 million gallons per day, Average Dry Weather Design Flow**
Facility Design Flow	**15.5 million gallons per day, Average Dry Weather Design Flow**

11. (Page F-4) References to sanitary sewer overflows should be removed from the Fact Sheet, to be consistent with the agreed-upon regulatory approach to focus the NPDES permit on the treatment plant, discharge, and focus the new statewide SSO waste discharge requirements on SSOs. Additionally, Provision C.6.c. of the permit covers SSOs. Therefore, language should be changed as follows:

    6. The Discharger's wastewater collection system includes about 387 miles of sanitary sewer lines, and 35 pump stations. The Discharger has an ongoing program of maintenance and capital improvements for these sewer lines and pump stations in order to ensure adequate capacity and reliability of the collection system. The Discharger's interceptor system includes two wet weather overflow structures, namely the Sears Point Pump Station Overflow and the Ryder Street Overflow. The Discharger states that these overflow structures reduce public exposure and potential public health threats by providing a controlled overflow point, thereby minimizing multiple overflows that would otherwise occur at various locations from collection system manholes in residential neighborhoods in the collection system area. During the past five years, there were no overflows at the Ryder Street overflow, and one wet weather overflow at the Sears Point Pump Station.

12. (Page F-5) The District requests additional clarifying language for the facility description, as follows:

    9. The US EPA Region IX determined in its June 18, 1986, letter that East Bay Municipal Utility District's wet weather overflow structures (EBMUD's Overflow Structures) are not POTWs, and are therefore not subject to secondary treatment requirements pursuant to 40 CFR 122.2. The Basin Plan recommends (Chapter 4, Wet Weather Overflows, Conceptual Approach) combination of maintenance and associated treatment and overflow requirements to control wet weather overflows. The Executive Officer relied upon US EPA's June 18, 1986 letter and approved the October 2000 Study and concurred with its conclusions that the 5-year conveyance and treatment alternative and the collection system upgrades and maintenance program meets the Basin Plan's requirements for wet weather overflows. However, in a letter to the Regional Water Board regarding EBMUD's Overflow Structures, (September 7, 2004), US EPA reversed its June 18, 1986 letter and stated that any releases from collection systems must meet secondary treatment requirements. The Discharger has spent approximately $60 million to construct facilities based on the approach approved by the Regional Water Board. The facilities include increased capacity for wet weather flow treatment as well as storage basins and sewer

rehabilitation to control wet weather overflows.

13. (Page E-8) The District conducts its ultra-clean mercury sampling using a single grab, as allowed in the table on Page E-4. This approach would also allow for ultraclean analysis (lower detection limits). The District understands that it is desirable under the pretreatment program to conduct 24-hour composites, but found that there are not specific requirements in the pretreatment regulations (40 CFR 403) that require POTWs to use 24-hour composites (only industrial users). The District requests that language be changed as follows:

IX. OTHER MONITORING REQUIREMENTS

A. Pretreatment Program Monitoring - A-001, E-001, and B-001

The Discharger shall comply with the pretreatment requirements as follows for both influent (A-001), effluent (E-001), and biosolids (B-001):

Constituents	Sample Locations and Frequency		
	Influent A-001	**Effluent E-001**	**Biosolids (B-001)**
VOC	Twice per year	Twice per year	Twice per year
BNA	Twice per year	Twice per year	Twice per year
Metals [1]	Monthly	Monthly	Twice per year

[1] The parameters are arsenic, cadmium, selenium, copper, lead, mercury, nickel, silver, zinc, cyanide, and total chromium if the Discharger elects to substitute total chromium for hexavalent chromium. The mercury sample may be collected as a grab sample, and also both collected and analyzed using ultra-clean techniques.

14. (Page F-8) The compliance history shown in the tentative order is incorrect, and should be revised as follows:

D. Compliance Summary. The following tables summarize the number of effluent limitation exceedances at each discharge point during the previous permit period.

1. Discharge Point E-001

Parameter	Number of Exceedances for the Year				
	2001	**2002**	**2003**	**2004**	**2005**
TSS Daily Maximum					
Settleable Matter Instantaneous Maximum			1		
pH Maximum					
Chlorine Residual Instantaneous Maximum	5	3			
Acute Toxicity 11 Sample Moving Median					
Selenium Monthly Loading					
Cyanide Daily Maximum					

2. Discharge Point E-002

Parameter	Number of Exceedances for the Year				
	2001	**2002**	**2003**	**2004**	**2005**
Chlorine Residual Instantaneous Maximum	2				
Fecal Coliform Monthly No more than 10%	2	1		1	

15. (Page F-24) It appears that the dilution and assimilative capacity section of the permit is much longer than for other POTW permits, although it is recognized that Water Board staff customized the language somewhat for the District. Of particular concern is the statement

that an accurate mixing zone cannot be established. The District disagrees because the science *is* available to establish mixing zones in complex estuarine systems. The District requests that language at IV.C.4.a. be revised as follows to more closely reflect other standard permit language while still retaining information regarding the site-specific conditions:

a. **Dilution and Assimilative Capacity**

1) **Dilution:** Wastewater is discharged year-round to Discharge Point E-001 through a submerged diffuser 400 feet from the north shore of Carquinez Strait and about 75 feet below the water surface. The Discharger indicates that Discharge Point E-001 receives a minimum initial dilution of 200:1. The second outfall is used intermittently during wet weather, when flows to the Facility exceed 30 mgd or the hydraulic capacity of the Discharge Point E-001 outfall is exceeded. During these conditions, some secondary treated wastewater is automatically sent to Discharge Point E-002, while a blend of primary and secondary treated wastewater is routed to Discharge Point E-001. The wastewater diverted to Discharge Point E-002 is discharged through a submerged diffuser about 100 feet from the east shore of Mare Island Strait and about 2 feet below the water surface. The Discharger indicates that Discharge Point E-002 receives a minimum initial dilution greater than 10:1. This Order continues the 10:1 dilution credit in the previous permit for both Discharge Points E-001 and E-002. The basis for the dilution credit is explained below.

a) **Discharge Point E-001.** The Regional Water Board believes a conservative 10:1 dilution credit for discharges of non-bioaccumulative pollutants to San Francisco Bay is necessary for protection of beneficial uses. The basis for limiting the dilution credit is based on SIP provisions in Section 1.4.2. The following outlines the basis for limiting the dilution credit:

(1) A far-field background station is appropriate because the San Francisco Bay watershed, including the receiving waters, is a very complex estuarine system with highly variable and seasonal upstream freshwater inflows and diurnal tidal saltwater inputs.
(2) Due to the complex hydrology of the San Francisco Bay watershed, a mixing zone has not been established.
(3) Previous dilution studies do not fully account for the cumulative effects of other wastewater discharges to the system.
(4) The SIP allows limiting a mixing zone and dilution credit for persistent pollutants (e.g., copper and mercury).

The main justification for limiting dilution credit is uncertainty in accurately determining ambient background and uncertainty in accurately determining the mixing zone in a complex estuarine system with multiple wastewater discharges. The basis for using 10:1 is that it was granted in the previous permit. This 10:1 limit is also based on the Basin Plan's prohibition number 1, which prohibits discharges with less than 10:1.

b) **Discharge Point E-002.** Section 1.4.2 of the SIP allows the Regional Water Board to grant dilution credit when the Discharger has demonstrated

through studies to the Regional Water Board that the credit is appropriate. The Regional Water Board believes that carrying over the 10:1 dilution credit from the previous permit for the intermittent discharges to Mare Island Strait (Discharge Point E-002) is appropriate, because the Discharger has documented (described below) that this discharge receives at least 10:1 dilution.

In 1997, the Discharger conducted an evaluation of the outfall at Discharge Point E-002 in order to define the initial dilution ratio. The final report, *Mare Island Outfall Dilution Study*, March 1997, concluded that, with specified modifications to the outfall, an initial dilution of greater than 10:1 would be achieved when the outfall's diffuser was submerged. In July 1997, the Discharger installed 12 inch variable width 'Tideflex' port valves to induce turbulent mixing, and oriented the discharge ports at a downward angle of 11.5 degrees from horizontal. In 2000, the Discharger installed a lazer-beam monitor on top of the outfall to continuously monitor its depth below the receiving water surface during all conditions (i.e. Napa River inflow and tidal influences). Regional Water Board staff evaluated the Discharger's monitoring data from the periods January 2003 through December 2005, and found that the outfall was always submerged (depth variances: minimum = 0.12 feet, average = 1.17 feet, and maximum = 2.0 feet). As such, the minimum dilution for Discharge Point E-002 should be at least 10:1.

2) **Assimilative Capacity.** In response to the State Water Board's Order No. 2001-06, Regional Water Board staff has evaluated the assimilative capacity of the receiving water for 303(d) listed pollutants for which the Discharger has reasonable potential in its discharges. The evaluation included a review of RMP data (local and Central Bay stations), effluent data, and WQOs/WQC. From this evaluation, the assimilative capacity appears to be highly variable due to the complex hydrology of the receiving water. Therefore, there is uncertainty associated with the representative nature of the appropriate ambient background data to conclusively quantify the assimilative capacity of the receiving water. Pursuant to Section 1.4.2.1 of the SIP, "dilution credit may be limited or denied on a pollutant-by-pollutant basis…"

For certain bioaccumulative pollutants, based on BPJ, dilution credit is not included in calculating the final WQBELs. This determination is based on available data on concentrations of these pollutants in aquatic organisms, sediment, and the water column. Selenium, mercury, PCBs, and dioxins and furans are on the CWA Section 303(d) list. Dilution credit is not included for these pollutants. The following factors suggest that there is no more assimilative capacity in the Bay for these pollutants.

a) San Francisco Bay fish tissue data shows that these pollutants, except for selenium, exceed screening levels. The fish tissue data are contained in "Contaminant Concentrations in Fish from San Francisco Bay 1997," May 1997. Denial of dilution credits for these pollutants is further justified by fish advisories to the San Francisco Bay. The Office of Environmental Health and Hazard Assessment (OEHHA) performed a preliminary review of the data from the 1994 San Francisco Bay pilot study, "Contaminated

Levels in Fish Tissue from San Francisco Bay." The results of the study showed elevated levels of chemical contaminants in the fish tissues. Based on these results, OEHHA issued an interim consumption advisory covering certain fish species from the bay in December 1994. This interim consumption advice is still in effect due to health concerns based on exposure to sport fish from the bay contaminated with mercury, PCBs, dioxins, and pesticides.

16. The District requests that several typos and formatting issues be corrected, as follows (shown in order that they appear in the permit):

    a. The main part of the permit shows page numbers on the computer screen, but didn't always print out for recipients. This may need to be checked.

    b. (Page 7)

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points E-001 and E-002

1. **Final Effluent Limitations**

a. The discharge of treated wastewater shall maintain compliance with the following effluent limitations at Discharge Points E-001 and E-002, with compliance measured at Monitoring Location E-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units[1]	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Carbonaceous Biochemical Oxygen Demand 5-day @ 20º ($CBOD_5$)	mg/L	25	40	--	--	--

    c. (Page F-6)

2. Discharge Point E-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, or when the hydraulic capacity of the Discharge Point E-001 outfall 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, located at Latitude 38 degrees, 5 minute, 23 seconds, and Longitude 122 degrees, 15 minutes, 12 seconds, and receives an effluent to receiving water initial dilution of greater than 10:1. During the years 2003 through 2005, 20 discharge events occurred from Discharge Point E-002, and the following table presents the months in which the discharges occurred, and the volume of effluent discharged.

    d. (page F-8)

3. **Best Management Practices and Pollution Prevention (Provision C.3)**

    a. **Pollutant Minimization Program**: This provision is based on Chapter 4 of the Basin Plan and Section 2.4.5 of the SIP. Furthermore, for mercury, and cyanide implementation of pollution minimization is based on Section 2.1 of the SIP because compliance schedules are granted for these two pollutants. For copper, the pollution prevention measures are to ensure compliance with antidegradation because the copper limits in this Order are numerically less stringent.

Attachment A

Vallejo Sanitation and Flood Control District
2006 NPDES Permit Renewal

Data Collected During Blending Events
February, 2001 Through April, 2006

Date of Event	TSS (mg/L)	BOD (mg/L)	Fecal Coliform (MPN/100ml)		Chlorine Dose (1) (mg/L)	Chlorine Residual (mg/L)	Acute Toxicity (% survival)	Chronic Toxicity (T.U.)
February 12, 2001	13	18		7	5.9	4.2		
February 20, 2001	16	19		17	4.3	3.2		
February 24, 2001	20	20			4.5			
December 1, 2001	14	21			3.5			
December 2, 2001	40	32			3.4			
December 28, 2001	27	28			3.3			
December 29, 2001	15	14			4.4			
December 30, 2001	19	26			3.8			
December 31, 2001	12	13	<	2	3.9	2.7		
January 2, 2002	19	18		14	3.5	2.0		
December 13, 2002	19	23			4.0			
December 14, 2002	20	22			4.0			
December 16, 2002	23	18		220	3.8	2.4		
December 19, 2002	44	28			4.1			
December 20, 2002	34	32		4	3.8	3.2		
December 21, 2002	17	13			4.8			
December 28, 2002	24	26			4.0			
December 29, 2002	15	14			4.0			
December 29, 2003	28	26			5.2			
January 1, 2004	14	13			3.6			
February 16, 2004	14	19			3.9			
February 17, 2004	31	29			3.8			
February 18, 2004	11	15		9	4.4	2.7		
February 25, 2004	21	22		13	4.2	3.1		
December 27, 2004	34	36		17	4.0	3.5		
January 2, 2005	24	25			5.0			
January 11, 2005	24	17		22	4.5	2.9		
December 18, 2005	47	45		2	4.7	3.2		
December 22, 2005	25	23			6.5			
December 27, 2005	17	17			6.3			
December 28, 2005	20	18		7	5.1	2.5		
December 30, 2005	24	24			5.5			
December 31, 2005	38	31			4.3			
January 1, 2006	24	27			6.0			
January 2, 2006	26	32			5.3			
January 3, 2006	13	11		8	6.8	3.0		
February 27, 2006	22	31			4.7			
February 28, 2006	13	14	<	2	5.5	3.5		
March 5, 2006	30	30			3.8			
March 6, 2006	23	22		8	3.9	3.3		
March 7, 2006	13	10		4	6.3	3.8		2.8

Date of Event	TSS (mg/L)	BOD (mg/L)	Fecal Coliform (MPN/100ml)		Chlorine Dose (1) (mg/L)	Chlorine Residual (mg/L)	Acute Toxicity (% survival)	Chronic Toxicity (T.U.)
March 25, 2006	12	17			4.9			
March 29, 2006	12	13			5.8			
April 3, 2006	11	13			5.8			
April 4, 2006	16	16			5.9			
April 12, 2006	16	18			5.0		100	
April 16, 2006	13	16			4.8			
Effluent Limit/Trigger	45	45		400	N/A	0.0	No less than 70	20
	Weekly Avg	Weekly Avg		90th percentile	N/A	Instantaneous maximum	90th percentile	Single sample max
Minimum	11	10	<	2	3.3	2.0	100	2.8
Maximum	47	45		220	6.8	4.2	100	2.8
Average	21	22		22	4.6	3.1	100	2.8

Notes:
(1) Chlorine dose varies during routine operations but is generally in the range of 3.0 mg/L. During blending events, chlorine dose can reach up to 7.0 to achieve chlorine residual.

Metals and Cyanide Data for April 12, 2006 Event

Parameter	NPDES Limit (µg/l)	Observed Value (µg/l)	
Antimony	None	0.50	DNQ
Arsenic	None	1.1	
Beryllium	None	0.12	ND
Cadmium	None	0.04	ND
Chromium *	None	1.3	
Copper	36	5.00	
Lead	None	0.75	
Mercury	0.2	0.025	
Molybdenum	None	1.3	
Nickel	53	3.50	
Selenium	50	1.0	
Silver	None	0.09	DNQ
Thallium	None	0.008	DNQ
Zinc	None	17.0	
Cyanide	10	1.4	DNQ
Phenols	None	8.0	

Notes:
* Total Chromium
ND = Non Detect, less than the method MDL. Used MDL for calculations.
DNQ = Did Not Quantify, less than the method ML, greater than the method MDL. Used an estimated concentration for calculations.

Figure 1. TSS Correlates Well With BOD During Blending

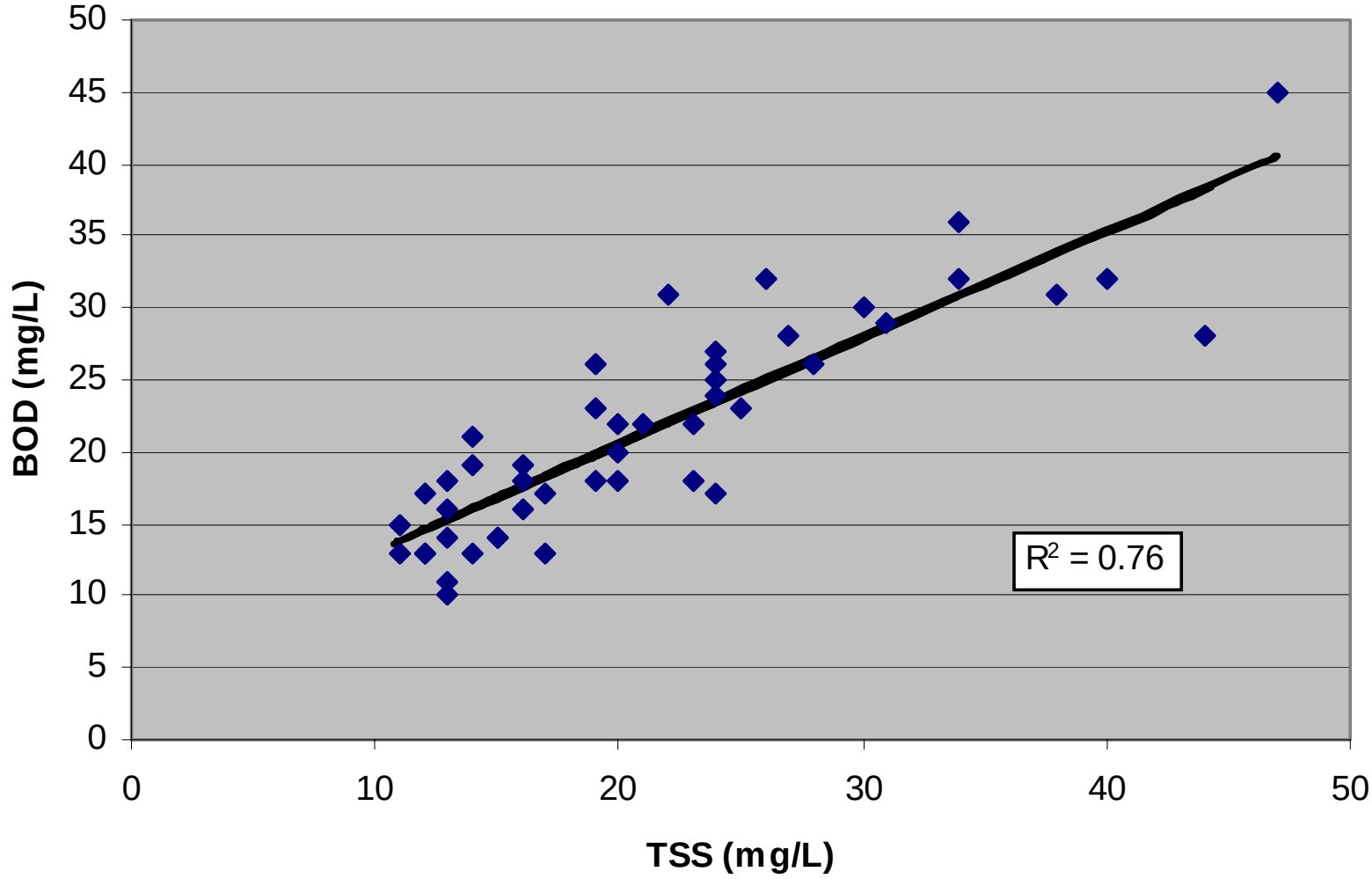
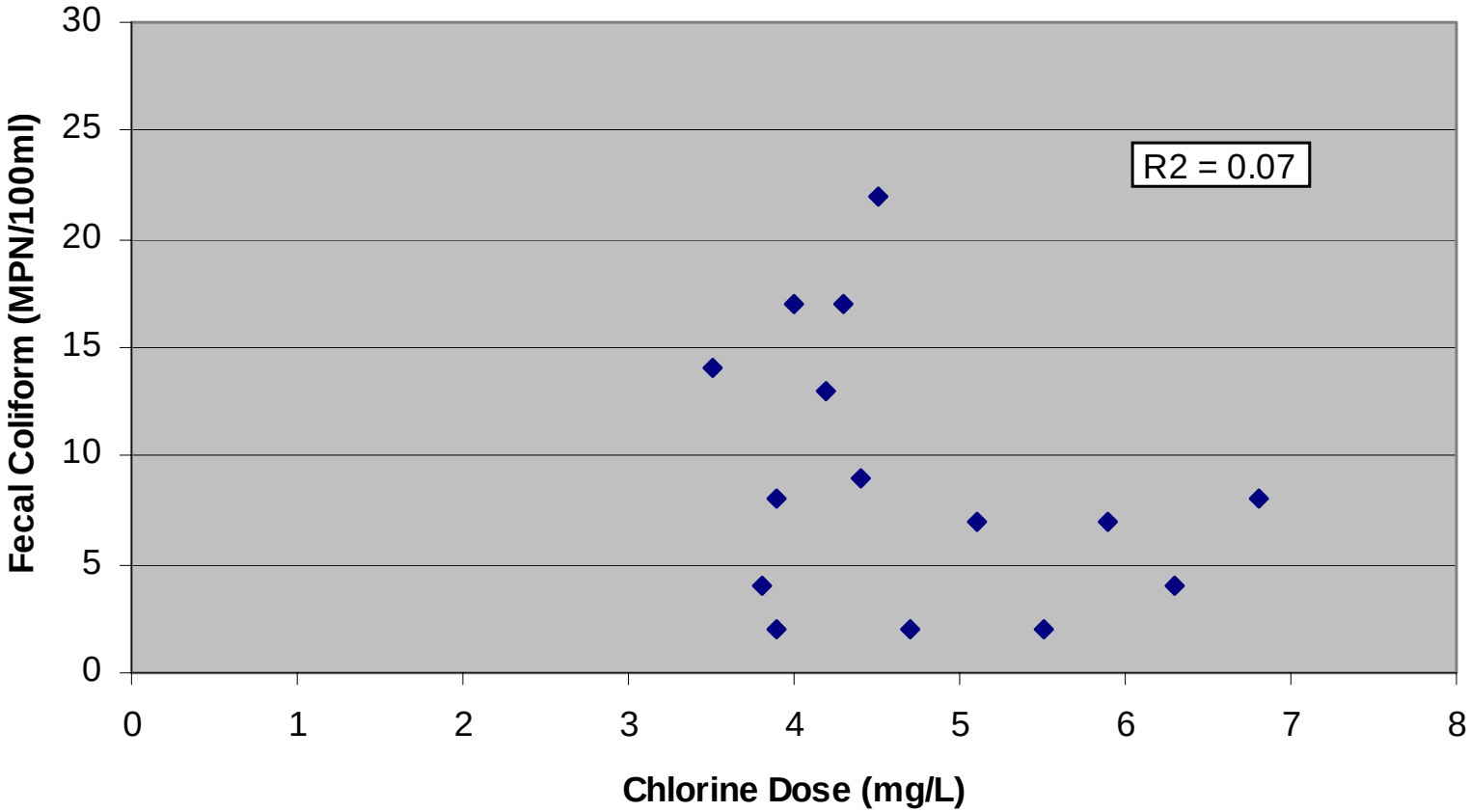


Figure 2. Fecal Coliform Generally Decreases with Increased Chlorine Dose During Blending (but not good correlation at high dosages)



Note: Fecal coliform value of 220 (with chlorine dose of 3.8 mg/L) was not included in figure so scale could be adjusted to see scatter of remaining data.

WET WEATHER PLANT OPERATIONS PROCEDURES

20 MGD AND RISING

(last revised March 2006)

1. **Verify that five Influent Pumps are in "Auto" and that the designated standby Influent Pump is in "Manual". There is a chance that five Influent Pumps won't pump 60 mgd. If five pumps are on at 100% and flow is lower that 60 mgd, ramp the Influent Pumps. If still below 60 MGD run the sixth Pump in hand to maintain 60 mgd maximum.**

2. **Close the FSS#1 Drain Valve to the Influent Wet Well.**

3. **Open the second Barscreen Inlet and Outlet Gates and put Bar Screen in "Auto". Close Barscreen Drain.**

4. **Put Grit Screw in "Manual" (large amounts of grit during excessive flows).**

5. **Leave Primary Sludge pumping in Ratio and adjust as necessary to keep density down while keeping sludge pumps from running continuously. Large amounts of grit are expected during the first few events of the season. It may be necessary to dilute the sludge with W3 at the pump to prevent pump from stalling.**

6. **Verify that the Sed. Tank 1-8 Influent Gates are set to operate in "Auto" and the Effluent Gates on all tanks are open.**

7. **Verify that the Mud Valves in Sed. Tanks 1-8 are closed.**

8. **Verify Mare Island Diversion Valve is open and handle is in place.**

   Note: Close the M.I. valve after diversion is over to prevent unauthorized diversions caused by possible unintentional MIPS Effluent Pump start.

9. **When the FSS3 flow reaches 25 MGD:**

   A. Set or increase the SHC dose to 3.5 mg/l.

   B. Slowly open the east side of Contact C until Gate is fully open and tank is on line. Verify that drain is shut.