

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**RESPONSE TO WRITTEN COMMENTS**

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

East Bay Municipal Utility District, Special District No. 1  
Main Wastewater Treatment Plant and Interceptor Conveyance System  
Alameda County  
NPDES Permit No. CA0037702

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- I. San Francisco Baykeeper & Our Children's Earth – January 25, 2010**  
**II. East Bay Municipal Utility District, Special District No. 1 (EBMUD) – January 25, 2010**  
**III. East Bay Collection System Satellites – January 25, 2010**  
**IV. Editorial Corrections**

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*Note: The format of this staff response begins with a brief introduction of the party's comments, followed with staff's response. Interested persons should refer to the original letters to ascertain the full substance and context of each comment.*

- I. San Francisco Baykeeper (Baykeeper) & Our Children's Earth (OCE) – January 25, 2010**

*Baykeeper and OCE Comment 1*

*Discharge Prohibition III.C incorrectly purports to allow discharges of blended wastewater in situations not allowed by federal law. The discharge of blended wastewater constitutes a bypass pursuant to federal regulations. 40 C.F.R. § 122.44(m)(1); see NPDES Permit Requirements for Peak Wet Weather Discharges from POTWs Serving SSOs. 70 Fed. Reg. 76013, 76015 (Dec. 22, 2005). Bypasses are illegal except in very narrowly defined circumstances, including when unavoidable to prevent substantial damage to life or property or when necessary for essential maintenance [40 C.F.R. § 122.41(m)]. Therefore, the Permit's assertion that discharge of blended wastewater is allowable (1) during certain levels of wet weather generated flow and (2) when the discharge complies with the Permit's effluent and receiving water limitations is contrary to law and must be removed. This Permit condition would harm the San Francisco Bay by allowing EBMUD to continue to discharge inadequately treated sewage to the Bay.*

Response 1

We disagree. As documented in EBMUD's No Feasibility Alternatives Analysis, dated February 13, 2007, it is necessary for EBMUD to blend primary treated wastewater with secondary treated wastewater during wet weather to avoid wash-out of the secondary treatment system or catastrophic flooding of the treatment plant. Because EBMUD has met the criteria for bypasses under 40 CFR 122.41(m) (see Fact Sheet), the discharge of blended wastewater is permitted.

However, Baykeeper and OCE's comment did give us cause to further consider the requirements of Prohibition III.C, specifically, the threshold at which EBMUD should be permitted to bypass during wet weather. The tentative order originally included a threshold of influent flows exceeding 168 million gallons per day (MGD) "subject to process and operational conditions." The caveat to the 168 MGD would make the prohibition difficult to enforce. Also, the 168 MGD was a design threshold for the capacity of the secondary treatment units under optimal conditions and does not consider the as-built limitations of process control instrumentation. For example, wastewaters flow to treatment units mostly by gravity and are dictated by the height of weirs. The flow rate through these units is adjusted by feedback loops from wastewater level sensors. Due to the large size of the units, the lag time for response causes fluctuations in the actual flow rates through the secondary units. So setting a hard limit at 168 MGD could cause EBMUD to be in violation about 50% of the time. Process information since 2005 shows that EBMUD has often initiated blending at lower flow rates, as low as 150 MGD, to ensure the effective operation of its treatment plant. We note that even without the threshold that is currently proposed, detailed flow data from 2009 show that on average, flows through the secondary units hover at 168 MGD during blending events. Therefore, for clarity and enforceability, and considering practical considerations, we revised Prohibition III.C as follows:

"The bypass of untreated or partially treated wastewater to waters of the United States is prohibited, except as provided for in the conditions stated in Section I.G.2 and I.G.4 of Attachment D of this Order.

Blended wastewater is biologically treated wastewater blended with primary treated wastewater that has been diverted around biological treatment units or advanced treatment units. Such discharges are approved under the bypass conditions when (1) the Discharger's peak wet weather secondary influent flow volumes equal or exceed the capacity of the secondary treatment unit(s) 150 MGD<sup>1</sup>, which is nominally 168 MGD, subject to process and operational conditions, (2) the Discharger maximizes treatment through all secondary treatment units, (23) when the discharge complies with the effluent and receiving water limitations contained in this Order, and (34) provided the Discharger satisfies Provisions VI.C.5. Furthermore, the Discharger shall operate its facility as designed and in accordance with the Operation & Maintenance Manual developed for the facility. This means that it shall optimize storage and use of equalization units, and shall fully utilize the biological treatment units and advanced treatment units, if applicable. The Discharger shall report incidents of the anticipated blended effluent discharges in routine monitoring reports, and shall conduct monitoring of this discharge as specified in the attached MRP (Attachment E)."

<sup>1</sup> As measured at station SEC-INF-001 described in Attachment E of this Order.

Also, we updated the Monitoring and Reporting Program to require EBMUD to monitor and report flows to its secondary treatment units, as shown in the following.

**Table E-1. Monitoring Station Locations**

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Influent Station	INF-001	Formerly Sampling Station A-001, at any point in the treatment facilities' headworks at which all waste tributary to the treatment system is present, and preceding any phase of treatment, and exclusive of any return flows or process side streams that would significantly impact the quantity or quality of the influent.
<u>Secondary Influent Station</u>	<u>SEC-INF-001</u>	<u>At a point that captures all primary treated effluent that is routed to secondary treatment units.</u>
Effluent Station	EFF-001	Formerly Sampling Station E-001, at any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present (may be the same as EFF-001-D).
Effluent Station	EFF-001D	Formerly Sampling Station E-001-D, at any point in the disinfection facilities for Waste EFF-001, at which point adequate contact with the disinfectant is assured.
Overflows and Bypass Station	OV-1 thru OV-n	Bypass or overflows from treatment facility, manholes, pump stations, and interceptors under the discharger's control.

**B. Monitoring Location SEC-INF-001**

The Discharger shall continuously monitor the flow rate to its secondary treatment units. If the Discharger blends, it shall report relevant flow information from this station in the self-monitoring report as part of its demonstration of compliance with Prohibition III.C. The Regional Water Board Executive Officer may consider evidence provided by the Discharger to dismiss a flow rate datum that is due to instrument spikes or short-lived hydraulic surges (e.g., less than 5 minutes, typically when the Discharger initiates or ceases blending). Such evidence must be provided as soon as practical such as with the appropriate self-monitoring report.

Finally, we revised Special Provision C.5, Corrective Measures to Minimize Blending Events to require EBMUD to implement measures that will maximize use of secondary treatment during blending events. These changes are shown below:

**5. Corrective Measures to Minimize Blending Events**

The Discharger shall comply with the following tasks and deadlines to further minimize blending.

**Table 8. Requirements to Minimize Blending Events**

Tasks	Compliance Deadline
1. <i>Report Annual Status of Storage Basin Standard Operation Procedure (SOP).</i> The Discharger shall analyze and report on the	February 1 <sup>st</sup> of each year with the Annual

Tasks	Compliance Deadline
<p>effectiveness of the new storage basin SOP identified in its report, dated February 13, 2007. The Discharger shall provide a description of all blending events over the course of the year and how they were managed. Specifically, this description shall include, for each blending event, the volume of wastewater that received secondary and primary treatment, and how the Discharger managed its storage basin to minimize the duration and magnitude of blending events (this evaluation shall also include blending events that were avoided because of the new storage basin SOP). Finally, the Discharger shall evaluate further enhancements to its operation of the storage basin SOP to maximize stored flow volume, and therefore, reduce the need to blend during wet weather.</p>	<p>Self-Monitoring Report required pursuant to Attachment E, Section XI.B.2</p>
<p><u>2. Report Annual Status of Measures to Maximize Secondary Treatment during Blending.</u> To ensure full utilization of available secondary treatment capacity, the Discharger shall evaluate process operations and implement appropriate changes to ensure that it maximizes flows to secondary treatment units. This shall include, at a minimum, (a) ensuring maximum capacity of activated sludge units (e.g., control of filamentous organisms in all available units in service), (b) exercising appropriate measures for process control to promote healthy biomass (e.g., control impacts of excess filamentous organisms), and (c) ensuring that process controls optimize the allocation of flows to secondary treatment units (e.g., wet weather mid plant pump station, flow meters, and activated sludge set points).</p>	<p>February 1<sup>st</sup> of each year with the Annual Self-Monitoring Report required pursuant to Attachment E, Section XI.B.2</p>

Baykeeper and OCE Comment 2

*The Permit authorizes anticipated bypasses as blending events but fails to include the required feasibility determination. Anticipated bypasses may be allowed provided that they meet all the requirements of 40 C.F.R. § 122.41(m)(4), which requires, in part, that no feasible alternatives exist. As the EPA pointed out in EPA’s comments on Regional Board 2’s NPDES Permit to the East Bay Dischargers Authority, anticipated bypasses may only be approved in the permit after analysis and implementation of all feasible alternatives. Letter to Lila Tang from EPA regarding NPDES Permit No. CA 0037699, July 12, 2006. Furthermore, the conclusions of the feasibility analysis must be stated in the permit findings and the permit must include the specific conditions under which the discharge may occur, including minimum wet weather flow rates. Id. To comply with federal regulations, the draft permit must be amended to include a thorough feasibility analysis if it is to authorize anticipated bypasses.*

*The Permit purports to require a utility analysis as a condition of blending/bypass discharges being allowed, but irrationally does not require completion of this analysis until 180 days before the Permit expires. Provisions VI.C.5. While just what this means with respect to when blending/bypass is allowed before this analysis is completed is unclear, it could be read to allow bypasses/blending discharges even before the utility analysis is completed, i.e., to continue for several years without a utility analysis having*

*been conducted. The Permit should be amended to require a utility analysis to be conducted and approved by the Regional Board (after issuing public notice and responding to public comment) before any further blending/bypass discharges are authorized. In sum, the utility analysis must be part of the Regional Board's permit proceeding administrative record before the Regional Board issues a permit condition authorizing bypass/blending discharges.*

### Response 2

We disagree. The Fact Sheet summarizes EBMUD's No Feasibility Alternatives Analysis, dated February 13, 2007, and describes why EBMUD has satisfied 40 CFR 122.41(m)(4)(i)(A)-(C). In other words, EBMUD has already submitted a No Feasible Alternative Analysis. At this time, it is not possible for EBMUD to provide full secondary treatment of flows above an instantaneous maximum of 168 mgd without potentially causing severe damage to its treatment plant.

Because the actions that are necessary to eliminate blending at EBMUD's main treatment plant will take longer than the five year life of the proposed permit, the tentative order includes a provision that requires EBMUD to revisit its No Feasible Alternatives Analysis when it applies for permit reissuance.

Finally, in regards to the commenter's reference to U.S. EPA's 2006 comment letter on another permit, we satisfied U.S. EPA's concern by adding specific conditions under which blending would be allowed. Similar conditions are proposed in this tentative order including the need for dischargers to revisit their no feasible alternatives analyses.

### Baykeeper and OCE Comment 3

*The Permit allows bypasses in certain situations provided that effluent limitations and receiving water limitations are achieved, but the Permit fails to specify and require the sufficiently detailed monitoring that EBMUD would need to perform to ensure that its blending discharges do not cause exceedance of effluent limitations and receiving water limitations. Discharge Prohibition III.C provides that "EBMUD shall conduct monitoring of this discharge as specified in the attached MRP (Attachment E)." However, the Monitoring and Reporting Program ("MRP") in Attachment E omits any blending discharge-specific monitoring requirements, making it at best ambiguous what EBMUD's monitoring obligations are during blending events. The MRP must be amended to require EBMUD to sample any blending discharges at least daily and to analyze the blended effluent samples for all pollutant parameters for which there are permit effluent limitations. The MRP must further be amended to require EBMUD to sample receiving waters at the edge of the EBMUD discharge zone of initial dilution at least daily during any blending discharges and to analyze the receiving water samples for all pollutant parameters for which there are permit effluent limitations.*

Response 3

The monitoring suggested is unnecessary. We reviewed data from blending events between 2005 and 2009 for toxic pollutants. These data showed that EBMUD’s discharge always complied with its effluent limitations, and would continue to comply with the limitations proposed in the tentative order. The below table provides a summary.

<b>Pollutant</b>	<b>Maximum Result (µg/L)</b>	<b>Maximum Daily/Weekly Limit<sup>1</sup></b>	<b>Number of Tests</b>
Copper	19	85	6
Mercury	0.071	0.072	9
Zinc	120	590	6
Cyanide	<3	39	1
Ammonia (mg/L)	27	110	3

<sup>1</sup> Except for mercury all of the limits are maximum daily limits and from the tentative order. The mercury limit is a weekly average and from Order No. R2-2007-0077, Waste Discharge Requirements for Municipal and Industrial Wastewater Discharges of Mercury to San Francisco Bay.

Additionally, we reviewed acute toxicity data for blending events from 2005 to 2009. There were 5 results for acute toxicity, which all showed a survival rate of 100 percent. This high level of compliance is not unexpected. Blending occurs only during heavy storm events. The increase in flow comes from inflow and infiltration in upstream collection systems as much as 5 times above normal flows. Much of this extra water is clean rain water that’s filtered even cleaner through shallow permeable soil matrices before finding its way through leaks in sewer pipes. Though there maybe some areas with soil and groundwater contamination, these areas are limited in extent relative to the large size of this service area and the time for mobilization of such contaminants is very short. As for inflow, while urban runoff will add pollutants to the wastewater through inflow, some of those pollutants are most likely bound to particles. Most particles are removed by primary treatment. All blended discharge is primary treated, with at least half and often much more than half, of the total volume also fully treated through secondary units.

So based in part on the data review described above, and assumptions about low sources of pollutants during wet weather, the new monitoring requirements set forth in the new Attachment G are appropriate for EBMUD. (The Regional Water Board approved this new Attachment G in February 2010 for other dischargers in the region.) In essence, during blending, Attachment G would require that a discharger monitor flows and collect and retain samples for the duration of the blending event. The discharger would be required to analyze for total suspended solids (TSS) and for bacteria indicators with effluent limits. If TSS exceeds 45 mg/L in any composite sample, the discharger would be required to analyze retained samples for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. Additionally, at least once each year, the discharger would be required to analyze the retained samples for one blending event for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity.

The new monitoring requirements set forth in Attachment G do not require monitoring for oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity because the environmental relevance of these samples are difficult to evaluate over the short duration that facilities blend. The primary concern with bioaccumulative pollutants such as mercury and dioxin-TEQ is the mass discharged. Any additional loading of these pollutants from approved wet weather blending is insignificant relative to the amount discharged throughout the year. Together with the evidence above that there's been no significant acute toxicity measured, it is also difficult to evaluate the toxicity of acute and chronic tests because most of these tests are based on collecting samples over multiple days, and blending typically occurs on the order of hours.

Additionally, it is logistically difficult to collect samples for oil and grease, mercury, dioxin-TEQ, acute and chronic toxicity during wet weather blending. For oil and grease, proper sampling protocols for a representative sample stipulate that a sample be made up of discrete grab samples collected at equally timed intervals. Because the duration of blending is always unknown, it is not possible to satisfy this requirement. Samples for the remaining parameters (mercury, dioxin-TEQ, acute and chronic toxicity) require advanced planning. Mercury and dioxin-TEQ samples require special handling to ensure that samples are not contaminated. As blending occurs at unpredictable times, it may not be possible for a discharger to have appropriate personnel on site. To ensure that acute and chronic toxicity tests are done according to U.S. EPA protocols, a discharger needs to have its test species available and acclimated so that it can conduct a valid test. Again, because blending occurs at unpredictable times, it would be difficult for dischargers to satisfy such a monitoring requirement.

Finally, on Baykeeper and OCE's suggestion that the MRP be revised to require receiving water sampling during each blended event, such sampling would not provide useful information. As long as there is some effluent sampling during blending events, we will be able to assess the potential impact of the discharges on receiving water better than receiving water samples themselves because of potential interferences from other wet weather sources such as urban runoff.

#### Baykeeper and OCE Comment 4

*While Baykeeper and OCE agree that Discharge Prohibition III.E. should at least prohibit SSOs to waters of the United States, the Permit should further expressly prohibit: (a) all SSOs to waters of the State and (b) all SSOs from EBMUD's sewage collection system.*

*EBMUD's sewage collection system constitutes a Publicly Owned Treatment Works ("POTW") as that term is defined by the CWA and accompanying U.S. EPA regulations. CWA § 212(2) (A), 33 U.S.C. § 1292(2)(A); 40 C.F.R. § 403.3. Specifically, a POTW includes all sewers, pipes and other conveyances that convey wastewater to a POTW's WWTP. EPA regulations require that POTWs subject to CWA regulation be properly operated and maintained. 40 C.F.R. § 122.41(e). As sewage collection systems are part of the system/appurtenances used to collect and treat sewage to meet CWA requirements and as proper operation and maintenance of such systems would preclude SSOs, NPDES*

*permits must prohibit SSOs. Furthermore, SSOs that do not directly reach waters, but overflow into public streets and other public places and back up into people's homes and businesses, pose nuisance public health threats that the State Board properly must regulate and seek to curtail. Notably, past NPDES permits issued by various California Regional Boards and permits issued by EPA have included such blanket prohibitions on SSOs.*

*To protect the public health and welfare from the grave health risks and frequent potential property damage caused by SSOs to public streets, parks, residences and businesses, the Permit must follow the example of past NPDES permits and include a blanket prohibition on all SSOs. The Regional Board may not condone the spilling of raw sewage into people's homes, places of business, public streets, and other areas accessible to the public.*

*In addition, the Permit must include a separate and express prohibition on SSOs to waters of the State to comply with the Porter Cologne Act/California Water Code. The Permit is not only an NPDES permit, it is a WDR issued pursuant to the California Water Code. The California Water Code precludes the discharge of raw sewage to waters of the State, and the Permit must reflect this. California Water Code § 13264. Notably, Prohibition III.E is also not as broad as comparable SSO prohibitions included in other NPDES permits recently issued to EBMUD's satellite systems. These permits included these additional prohibitions:*

*The discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.*

*The discharge of chlorine, or any other toxic substance used for disinfection and cleanup of wastewater spills, to any surface water body is prohibited.*

*See City of Oakland, NPDES NO. CA0038512, Regional Board Order No. R2-2009-0085,*

*Discharge Prohibitions III.C. & D. The EBMUD Permit should be amended at least to include these prohibitions imposed on EBMUD's satellites. In addition to not complying with applicable law, the SSO prohibition in the Permit is insufficient for effective SSO enforcement. The SSO reporting information in the State Board's California Integrated Water Quality System Project (CIWQS) database posted on the State Board's website makes obvious that there is an endemic problem with accurate reporting of SSOs. Many spill reports from sewage system operators indicate large volume SSOs, with little to no of the spilled sewage recovered and yet the reports still indicate that none of the spills reached waters. It is extremely unlikely that large volume SSOs that are not recovered have not flowed into waters. The SSO prohibition as drafted gives sewage systems incentive to slant their reporting as not showing that spills reached waters of the United States, given the potential escape from liability if spills are not reported as reaching waters of the United States.*

*An additional problem with the prohibition is the lack of clear definition in current case law of the term “waters of the United States.” The U.S. Supreme Court’s recent fractured decision in *Rapanos v. United States*, 547 U.S. 715 (2006) leaves highly uncertain what is a water of the United States.<sup>3</sup> The State Board’s current Water Quality Enforcement Policy aptly observes that “fair, firm and consistent enforcement depends on a foundation of solid requirements in law, regulations, policies, and the adequacy of enforceable orders. . . . The extent to which enforceable orders include well-defined requirements . . . affects the consistency of compliance and enforcement” (emphasis added). Given the current uncertainty as to what constitutes a water of the United States under the governing case law, the Permit is inconsistent with the State Board’s Enforcement Policy’s directive that enforceable orders should specify well-defined requirements. To be consistent with the Enforcement Policy, the Permit must include a clear, unambiguous and thus enforceable prohibition on all sewage spills, not just those that reach “waters of the United States.”*

*Notably, California Water Code sections 13260(a)(1) and 13263 provide the Regional Board with authority to regulate all SSOs, not just those that reach waters of the United States or waters of the State. Section 13260(a)(1) mandates that “Any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state” must file a report of waste discharge with the appropriate Regional Board (emphasis added). Any SSO has the potential to adversely affect quality of waters of the State. As the SSO reports in the CIWQS database show, many SSOs flow directly into State waters. Even when SSOs do not flow directly into waters, SSOs tend to leave sewage residue on streets or in storm drains that are eventually flushed into waters when it rains. Accordingly, sewage system operators must report all SSOs to the Regional Board to comply with California Water Code section 13260(a) (1). Section 13263, in turn, provides the Regional Board with broad authority to impose conditions regulating reported waste discharges, including conditions necessary to avoid public nuisance or indirect harm to waters.*

#### Response 4

We have not made changes in response to this comment. The tentative order would prohibit illicit discharges to waters of the United States, which is where the focus should appropriately remain at this time. To revise the prohibitions to include State waters as the commenter requested would in essence add groundwaters to the mix and thus diffuse the focus of the current effort. Similarly, to expand the prohibitions to encompass all SSOs regardless of their destination would also diffuse the current effort. The prohibitions in the tentative order are sufficient to ensure that EBMUD properly operates and maintains its interceptor conveyance system so untreated wastewaters do not discharge to surface waters.

Furthermore, while the prohibitions would not specifically address discharges to waters of the State, this does not mean that such discharges are permitted. As pointed out by Baykeeper and OCE, such discharges would be in violation of California Water Code Section 13260, which requires that any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State

file a report of waste discharge. Such discharges would be directly enforceable under California Water Code sections 13304 and 13350.

Finally, in regards to the Baykeeper and OCE's comment about condoning sanitary sewer overflows that do not reach surface waters, but overflow into public streets and other public places or back up into people's homes, the tentative order does not condone these discharges. Such discharges are prohibited by Attachment G, Regional Standard Provisions, Monitoring, and Reporting Requirements I.I.1, which states: "Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code Section 13050." This standard prohibition is equivalent to the two prohibitions that are included in the City of Oakland's NPDES permit and mentioned by Baykeeper and OCE.

#### Baykeeper and OCE Comment 5

*The Permit inappropriately omits an enforceable chronic toxicity effluent limit. The Regional Board's proposed approach to chronic effluent toxicity regulation, only requiring EBMUD to perform toxicity reduction evaluations and toxicity identification evaluations should chronic toxicity be observed, is inappropriately calculated to insulate the discharger from enforcement. Permit, Effluent Limitations, § IV.A.1.g EPA regulations mandate the inclusion of whole effluent toxicity limits in NPDES permits whenever a discharge "causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative criterion within an applicable State water quality standard." 40 C.F.R. § 122.44(d)(1)(v). The Basin Plan contains a narrative water quality objective for whole effluent toxicity ("WET"). Consistent with long-established EPA guidance, compliance with a narrative WET standard must be determined by considering both the acute and chronic toxicity of a discharge. U.S. EPA, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, page 4 (March 1991) ("[t]he whole effluent approach to toxics control... involves the use of acute and chronic toxicity tests."). EBMUD's discharge has reasonable potential to cause both acute and chronic toxicity. It has been EPA policy for over a decade that whole effluent toxicity regulation should include limitations on both acute toxicity and chronic toxicity in such settings. By merely including provisions that require toxicity reduction evaluations and toxicity identification evaluations should chronic toxicity be observed, the Permit fails to comply with EPA regulations and policy concerning protection against whole effluent toxicity.*

*The Permit's current approach fails to comply with the approach to whole effluent toxicity regulation mandated by the State Water Resources Control Board's permit remand decision in the Matter of Own Motion Review of East Bay Municipal Utility District Wet Weather Permit to the East Bay Municipal Utility District's Wet Weather Facilities, Order WQ 2007-0004 ("EBMUD Order"). The EBMUD Order effectively directed the Regional Board to revisit EBMUD's Wet Weather Facilities' permit to "address reasonable potential for [whole effluent toxicity] and, if reasonable potential exists, include appropriate limitations based on Basin Plan [acute and] chronic toxicity requirements." EBMUD Order at 21*

#### Response 5

We have modified the tentative order to include a narrative effluent limitation for chronic toxicity consistent with a 2009 State Water Board order, and identical to the limitation in NPDES permits the Board has adopted since August 2009. Under Effluent Limitations and Discharge Specifications A.g, we made the following changes:

“There shall be no chronic toxicity in the discharge in toxic amounts. Chronic toxicity is a detrimental biological effect of growth rate, reproduction, fertilization success, larval development, or any other relevant measure of the health of an organism population or community. Compliance with this limit shall be determined by analyses of indicator organisms and toxicity tests. Compliance shall be measured at EFF-001 as described in the MRP (Attachment E).”

The Discharger shall comply with the following tiered requirements based on results from representative samples of the effluent at E-001 as described in the attached MRP (Attachment E). Compliance with the Basin Plan narrative chronic toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated final effluent meeting test acceptability criteria and complying with MRP Section V.B (Attachment E).”

~~Compliance with the Basin Plan narrative chronic toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the discharge, as measured at EFF-001, meeting test acceptability criteria and Section V.B of the MRP (Attachment E). Failure to conduct the required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity.~~

#### Baykeeper and OCE Comment 6

*The Permit inappropriately limits EBMUD’s chronic toxicity monitoring requirement to performance of two tests per year. Permit, Attachment E, MRP, § V.B. This is insufficient frequency to ensure that EBMUD is detecting incidents of whole effluent toxicity. Sewage effluent is well known to be highly variable in its chemical composition in urban systems. The varying levels of rainfall derived infiltration and inflow into the EBMUD satellite systems’ sewer lines and the variety of what the hundreds of thousands of users of the EBMUD satellite systems are placing into sewer lines will predictably cause significant fluctuation in the levels of toxic substances in EBMUD’s effluent discharges. This warrants more frequent chronic toxicity testing.*

#### Response 6

We have not made changes in response to this request. We statistically analyzed EBMUD’s effluent data since 2003. This shows that chronic toxicity values have exhibited very little variability (coefficient of variation of 0.13). Over the past seven years, the average chronic toxicity was 7.0 chronic toxicity units and the standard

deviation was 0.935. This equates to a 99 percent probability that chronic toxicity will be below 9.2 toxicity units, which is still below the threshold of 10 chronic toxicity units that would suggest a potential impact to water quality. As such, and because these tests cost around \$1,400 each, we view semi-annual monitoring as appropriate for this discharge.

Baykeeper and OCE Comment 7

*The Permit inappropriately limits EBMUD's requirement to monitor dioxins levels to twice per year. Permit, Attachment E, MRP, § IV.E. This is insufficient frequency to ensure that EBMUD is detecting the presence of dioxins in its effluent. Again, sewage effluent is well known to be highly variable in its chemical composition in urban systems. The varying levels of rainfall derived infiltration and inflow into the EBMUD satellite systems' sewer lines and the variety of what the hundreds of thousands of users of the EBMUD satellite systems are placing into sewer lines will predictably cause significant fluctuation in the levels of toxic substances in EBMUD's effluent discharges. This warrants more frequent dioxins testing.*

Response 7

We have not made changes in response to this request. EBMUD has shown that dioxin and furan congeners have been mostly nondetect, and for those few congeners that are detected, their toxic equivalents (TEQs) have been below the water quality objective for the past 6 years. On monitoring frequency, we do not believe that increasing the frequency is likely to provide beneficial information relative to the costs (approximately \$1,000 per analysis). The dioxin-TEQ monitoring frequency required by the tentative order is within the range of monitoring requirements for dioxin-TEQ and other priority pollutants in other Region 2 permits.

Baykeeper and OCE Comment 8

*The Permit should be amended to specify that minimum levels/reporting levels ("RLs") are to be used only for purposes of reporting and administrative enforcement, but not to effectively alter the Permit's water quality-based effluent limitations ("WQBELs").*

*CWA section 301(b)(1)(B) requires NPDES permits to include WQBELs based upon water quality standards ("WQS"), i.e., that are sufficiently stringent to ensure attainment of WQS. As drafted, the Permit effectively specifies that the Permit's RLs for pollutant parameters rather than the Permit's actual WQBELs are EBMUD's enforceable limits. Specifically, the Permit specifies that EBMUD shall be deemed out of compliance with the Permit's WQBELs only if the concentration of a given pollutant exceeds both the WQBELs and the RL for that constituent. See Permit, Compliance Determination, § VII.A. The RL is the minimum level of the pollutant that Regional Board 2 indicates the laboratory must be able to detect when sampling the discharger's effluent. These RLs are typically higher than the Permit's WQBELs, effectively changing EBMUD's applicable effluent limitation from the duly set WQBEL to the RL, instead.*

*This RLs approach is unlawful. In Waterkeepers N. California v. State Water Resources Control Board, the First Division of the California Court of Appeal held that, while the*

*State Board may provide enforcement guidelines for the Regional Boards, it lacks authority to "frame effluent requirements to reflect the technological limits for detection in discharge samples." Waterkeepers, 102 Cal.App.4th 1448, 1461 (2002). To prevent RLs from essentially supplanting WQBELs in situations where the RL is equal to or greater than applicable WQBEL, RLs must be used only to determine compliance for purposes of reporting and the exercise of enforcement discretion.*

*Moreover, at least some of the RLs have been set higher than at least some laboratories' true technological capability of detecting the levels of pollutants in an effluent. This is reflected by dischargers region-wide often reporting in their required Discharge Monitoring Reports to Regional Board 2 lower levels of pollutants than the RL levels, but levels that exceed applicable WQBELs—demonstrating that laboratories are often capable of reliably measuring pollutant levels less than the RL but higher than the WQBEL. Indeed, many Regional Board 2 permits have expressly acknowledged that laboratories can, at least on occasion, detect pollutants in effluents at levels below the RLs, i.e., at levels equal to the laboratory's "Method Detection Level" (MDL). This underscores that the Regional Board's approach to MLs is rendering NPDES permits, such as the EBMUD Permit, unduly lenient and therefore not appropriately protective of the environment.*

#### Response 8

We agree with this comment, but no changes are necessary. This is because the tentative order already captures this concern. Specifically, page 26 of the tentative order states:

“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).”

This language in no way changes the water quality limitations that will be required in the permit. The ML<sup>1</sup> is the concentration at which the entire analytical system gives a recognizable signal and acceptable calibration point. Since values reported below the ML represent values where the analytical system produces less reliable results, such values are merely estimates. Regardless of the pollutant, it is bad public policy to use mere estimates for compliance purposes. Further, the MLs required by the tentative order are consistent with State Water Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California*.

Finally, on Baykeeper and OCE's last point, we were not able to substantiate their assertion that laboratories are able to quantify pollutants at levels below the RL or equal

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<sup>1</sup> The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

to the MDL. The MDL is the point at which the presence or absence of a pollutant can be assessed; it is not a point at which the concentration of the pollutants can be reliably quantified. Dischargers sometimes do erroneously report MDLs as RLs in discharge reports because these two concepts are easy to misunderstand.

Baykeeper and OCE Comment 9

*The Permit inappropriately provides that EBMUD may seek to refute its own monitoring reports by claiming that chlorine residual exceedances are “false positives.” Permit, Effluent Limitations, § IV.A.1. (Table 6, footnote 1). This is contrary to Congress’ intent and case law holdings that the Clean Water Act create a simple enforcement scheme based on a discharger’s obligations to self-monitor and conclusively report its effluent limit violations. See Sierra Club v. Union Oil Co. of California, 813 F.2d 1480, 1490-91 (9th Cir. 1987). This provision should be deleted.*

*This provision is particularly problematic to effective enforcement in that it provides no deadlines for EBMUD to make a claim to the Regional Board that EBMUD’s chlorine residual exceedances are false positives. This would allow EBMUD to raise a false positive affirmative defense years after a reported exceedance when the relevant information will be stale and inherently harder to evaluate. This is contrary to the approach, for example, in EPA’s bypass regulation, which puts a strict time limit on making a claim that a bypass meets the requirements for an allowable bypass. 40 C.F.R. § 122.44(m)(3). If the Regional Board is going to leave a false positives affirmative defense provision in the Permit, it should at least specify a deadline for EBMUD to assert that a result is a false positive.*

Response 9

We have not made changes in response to this comment. Because chlorine is extremely toxic to aquatic life at low concentrations and even over short durations, we want to encourage dischargers to implement continuous monitoring for this pollutant. However, one of the drawbacks of continuously monitoring for chlorine is that these devices are occasionally subject to signal spikes or false positives. To encourage dischargers to use continuous monitoring devices without triggering erroneous violations, it is appropriate to provide dischargers with the opportunity to document whether or not detected chlorine values are accurate.

On Baykeeper and OCE’s second point, unlike the timeframes required to provide notification of a bypass, federal regulations do not specify time limits for when a discharger must raise an affirmative defense. However, we have structured the permit to make this unlikely because EBMUD is required to investigate the cause and implement corrective actions whenever it violates any effluent limitation including chlorine. Specifically, Attachment D, Standard Provisions – Reporting, V.E.1 states:

“The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5)

days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR §122.41(l)(6)(i).)”

Because EBMUD is required to immediately determine the cause of noncompliance, its 5-day letter would need to address the potential for false positives (e.g., examine the ratio of sodium bisulfite to chlorine used). However, if additional evaluation is needed, the permit requires that EBMUD provide within 60 days a request for invalidation of any data submitted so that violations can be expeditiously investigated and resolved. (See Attachment G, Regional Standard Provisions – Reporting, V.C.1.a.5).

#### Baykeeper and OCE Comment 10

*The Permit appears inappropriately to allow for the possibility of relaxing the Permit's WQBELs when the Regional Board determines that meeting WQBELs is infeasible as part of approval of a mass offset plan. See Provisions VI.C.2.c. The CWA requires the Regional Board to establish WQBELs that are sufficient to achieve WQS. See Dioxin/Organochlorine Ctr. v. Rasmussen, 1993 WL 484888 at \*3 (W.D. Wash. 1993), aff'd sub nom. Dioxin/Organochlorine Ctr. v. Clarke, 57 F.3d 1517 (9th Cir. 1995) ("The Act required the adoption by the EPA of 'any more stringent limitation, including those necessary to meet water quality standards,' by July 1, 1977.") (citation omitted); Longview Fibre Co. v. Rasmussen, 980 F.2d 1307, 1312, (9th Cir. 1992) (CWA section 301(b)(1)(C) "requires achievement of the described limitations 'not later than July 1, 1977.'" (citation omitted). Any discharger not in compliance with a WQBEL after July 1, 1977 violates this clear Congressional mandate. See Save Our Bays and Beaches v. City & County of Honolulu, 904 F. Supp. 1098, 1122-23 (D. Haw. 1994). The CWA does not allow the Regional Board to set more lenient limits that do not insure achievement of WQS. Indeed, states are explicitly prohibited from establishing or enforcing effluent limitations in NPDES permits that are less stringent than those required by the CWA. See 33 U.S.C. § 1370; Cal. Water Code §§ 13372, 13377. That WQBELs are expensive or difficult to meet provides no basis for the Regional Board to decline to do so. See State Water Control Board v. Train, 559 F.2d 921, 924-25 (4th Cir. 1977) ("Section 301(b)(1)'s effluent limitations are, on their face, unconditional."); Bethlehem Steel Corp. v. Train, 544 F.2d 657, 661 (3d Cir. 1976), cert. denied sub nom. Bethlehem Steel Corp. v. Quarles, 430 U.S. 975 (1977) ("Although we are sympathetic to the plight of Bethlehem and similarly situated dischargers, examination of the terms of the statute, the legislative history of [the Clean Water Act] and the case law has convinced us that July 1, 1977 was intended by Congress to be a rigid guidepost").*

#### Response 10

We removed the optional provision for a mass offset program.

### Baykeeper and OCE Comment 11

*The Permit violates the CWA's anti-backsliding provisions by providing for relaxed permit limits for copper, cyanide and zinc compared to the limits imposed by EBMUD's prior permit. See Permit, Effluent Limitations, § IV.A (Table 7). The CWA's antibacksliding provisions and accompanying EPA policy are meant to implement the CWA's "national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." 33 U.S.C. § 1251; 49 Fed. Reg. 37,898, 38,019 (September 26, 1984). The CWA and accompanying regulations generally provide that a permit may not be renewed or reissued with less stringent effluent limitations than those contained in the previous permit. 33 U.S.C. § 13429(o), 40 C.F.R. § 122.4(l) (1), especially when the discharger (as here) has demonstrated its ability to comply with the interim limits.*

### Response 11

We have not made changes in response to this comment. For copper and cyanide, antibacksliding does not apply because the previous permit included interim limits based on performance, and the tentative order proposes final limits based on protecting water quality. In other words, these two sets of limits are not comparable, and therefore, not subject to antibacksliding (see State Water Board Order WQ 2001-06, pages 50-51). On zinc, the final effluent limits are from the previous permit. The only distinction is that we rounded to two significant figures as required by the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California*.

## **II. East Bay Municipal Utility District (EBMUD), Special District No. 1 – January 25, 2010**

### EBMUD Comment 1

*EBMUD indicates that a study of near-field dilution characteristics at its outfall was completed in February 2008. The study identified a minimum initial dilution of around 25:1 based on very low ambient current speeds and water column stratification. While the duration of minimum initial dilution was not identified in the study, EBMUD believes that such conditions did not persist over the one-hour averaging period that U.S. EPA uses to derive acute water quality criteria. Therefore, EBMUD points out that minimum dilution was conservatively estimated in this study. Further, EBMUD indicates that, at some point, it may want to refine the minimum dilution value through additional modeling and/or dye study and submit a revised study to the Water Board. To document this approach, EBMUD requests that the Water Board revise the Findings and Fact Sheet as follows:*

#### *Finding II.B*

*The treated wastewater is discharged into Central San Francisco Bay, a Water of the United States. The wastewater is discharged through a submerged diffuser adjacent to the San Francisco-Oakland Bay Bridge about 5,700 feet off shore at a depth of 45 feet below mean lower low water through Discharge Point No. 001 (see table on cover page). Based on a study conducted by the Discharger in 2008, the outfall achieves a worst case initial dilution greater than 25:1 and a typical initial dilution of*

341:1. The actual minimum initial dilution, which is expected to be higher than 25:1, has not yet been established. The Discharger may choose to refine the minimum initial dilution value by completing an additional dilution study during this permit term.

*Fact Sheet, Facility Description II.B (page F-5)*

**Discharge Point 001.** *The discharge point, authorized by this Order, and the receiving water, are shown in Table F-2 below. The treated wastewater is discharged into Central San Francisco Bay, a Water of the United States. The Central San Francisco Bay is located in the Central Basin watershed management area. The wastewater is discharged through a submerged diffuser adjacent to the San Francisco-Oakland Bay Bridge about 5,700 feet off shore at a depth of 45 feet below mean lower low water through Discharge Point No. 001. Based on a study conducted by the Discharger in 2008, the outfall achieves a worst case initial dilution greater than 25:1 and a typical (50<sup>th</sup> percentile) initial dilution of 341:1. The actual minimum dilution has not yet been established. The Discharger may choose to refine the minimum initial dilution value by completing an additional dilution study during this permit term.*

*Fact Sheet, Dilution Credit IV.C.4.b (page F-28)*

- (2) *In calculating WQBELs for total ammonia (a non-bioaccumulative and non-persistent pollutant), the ~~actual~~ estimated minimum initial dilution of 25:1 was used for the acute objective and the estimated median initial dilution of 341:1 was used for the chronic objective ~~was used~~. This dilution is based on a 2008 URS report that estimated a minimum initial dilution of 25:1 during ambient current speeds less than 0.1 m/s and when the water column was stratified, and an initial dilution of 341:1 for effluent flow rates of 0 to 282 MGD and conservative receiving water conditions (i.e., current speeds up to 0.7 m/s). The actual minimum dilution has not yet been established. The Discharger may choose to refine the minimum dilution value by completing an additional dilution study during the permit term. Actual initial dilution is used because ammonia is not a persistent pollutant and the Basin Plan states, “In most instances, ammonia will be diluted or degraded to a nontoxic state fairly rapidly.” As such, there is unlikely to be cumulative toxicity effects associated with discharges containing elevated concentrations of ammonia. Therefore, granting dilution credits based on actual initial dilution is protective of water quality.*

*Fact Sheet, Special Provisions VII.C (page F-45)*

## 1. Reopener Provisions

*These provisions are based on 40 CFR §123 and allow future modification of this Order and its effluent limitations as necessary in response to updated WQOs that may be established, as well as water quality studies or a revised mixing zone study that may be undertaken by the Discharger and submitted for approval in the future.*

### Response 1

We have included a portion of the language suggested by EBMUD. Specifically, we revised the discussion in the Fact Sheet on dilution credits as follows:

*“In calculating WQBELs for total ammonia (a non-bioaccumulative and non-persistent pollutant), the ~~actual~~ estimated minimum initial dilution of 25:1 was used for the acute objective and the estimated median initial dilution of 341:1 was used for the chronic objective ~~was used.~~”*

We have not made any other changes in response to this comment. While we recognize that the initial dilution documented in *East Bay Municipal Utility District Main Wastewater Treatment Plant Outfall Dilution Study*, dated February 2008, is based on conservative estimates, it is the best information available at this time. This does not preclude EBMUD from conducting a more robust study in the future to better assess the duration over which minimum dilutions occur.

### EBMUD Comment 2

*EBMUD indicates that ambient monitoring of San Francisco Bay is conducted by the Regional Monitoring Program (RMP), and that it supports the RMP monitoring efforts through its membership with the Bay Area Clean Water Agencies (BACWA). It points out that all data is made available through the San Francisco Estuary Institute (SFEI) website. Because these data are readily accessible, EBMUD believes the requirement for it to transfer such data to the Water Board is unnecessary. Therefore, EBMUD requests the following change:*

*Regional Monitoring Program VI.C.2.b (page 15)*

*~~The Discharger shall submit, or cause to have submitted on its behalf, a final summary report that presents all such receiving water data to the Regional Water Board 180 days prior to expiration of this Order. This final report shall be submitted with the application for permit reissuance.~~*

### Response 2

We agree and have made changes in response to this comment. The Revised Tentative Order states as follows:

*“The Discharger shall monitor, or cause to be monitored, ambient receiving water for the priority, toxic pollutants or continue to participate in the RMP to provide on-going characterization of water quality in the Bay.*

Conventional water quality parameters (pH, salinity, and hardness) shall also be sufficiently and simultaneously characterized in the receiving water at a point after the discharge has mixed with receiving water. This permit may be reopened, as appropriate, to incorporate effluent limits or other requirements based on Regional Water Board review of these data.

~~The Discharger shall submit, or cause to have submitted on its behalf, a final summary report that presents all such receiving water data to the Regional Water Board 180 days prior to expiration of this Order. This final report shall be submitted with the application for permit reissuance."~~

*EBMUD Comment 3*

*As specified in Attachment G, EBMUD must sample daily during blending for all constituents with effluent limits. EBMUD requests an optional special study provision be included in the permit to allow use of a surrogate indicator to determine effluent quality during wet weather blending events. Consistent with the Regional Water Board's approach for other dischargers, EBMUD would like the option of analyzing for total suspended solids (TSS) and demonstrating that when a minimum level is met for TSS there are no violations of other effluent limits. Data collected at the Main Wastewater Treatment Plant during blending events of 2006, 2007, and 2008, as part of a Water Environment Research Foundation (WERF) funded Wet Weather Blending study indicate compliance with effluent limits during blending. EBMUD understands that a modification of Attachment G addressing this point may occur during a Regional Water Board Hearing in February 2010. If Attachment G is not modified to include blanket approval for this approach, EBMUD requests the following special study provision be included in its permit:*

*Provision VI.C.8 (page 23) [Proposed]*

***Optional Special Study to Establish Surrogate Monitoring During Blending Events***

***At the Discharger's discretion, the submittal of a special study establishing a surrogate (TSS or other) indicator for monitoring during blending events would be reviewed, and if accepted, would modify sampling and analytical requirements during blending events. Upon approval of the study, the Executive Officer can approve a change to the monitoring-during-blending requirements identified in this permit, associated MRP and Attachment G.***

*Response 3*

See response 3 to Baykeeper and OCE.

EBMUD Comment 4

*EBMUD indicates that it currently disposes of sludge by land application or to an authorized sanitary landfill. During the permit term, EBMUD indicates that it may implement additional sludge disposal methods that are in accordance with 40 CFR Part 503. In anticipation of these changes, EBMUD requests approval in this permit for all disposal methods authorized by 40 CFR Part 503. Specifically, EBMUD requests the following revisions:*

*Sludge Management Practices Requirements VI.C.4.b (page 19)*

- (1) All sludge generated by the Discharger must be disposed of in a municipal solid waste landfill, reused by land application or landfill alternative daily cover, ~~or~~ disposed of in a sludge-only landfill, or disposed of by any other practice in accordance with 40 CFR §503. If the Discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to USEPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR §503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the Discharger. The Regional Water Board should be copied on relevant correspondence and reports forwarded to USEPA regarding sludge management practices.*

Response 4

We revised the tentative order to reflect these changes.

EBMUD Comment 5

*EBMUD requests that the permit allow grab sample analysis and mathematical compositing for determining compliance with oil and grease limits. Attachment E of the Tentative Order requires that three grab samples be collected during the sampling date and then physically mixed (in proportion to the flow rate) to obtain one composite sample. EBMUD points out that the 2007 EPA publication Solutions to Analytical Chemistry Problems with Clean Water Act Methods states that “Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, fecal streptococcus, E. coli, Enterococci, and volatile organics, unless specified otherwise at 40 CFR Part 136.” Compositing of oil and grease samples is not recommended. EPA Method 1664A also recommends that samples be collected as grab, but does provide compositing instructions if a composite sample is required. The composite sample instructions, however, are limited to performing a manual liquid/liquid extraction. The EBMUD laboratory is certified for a solid phase extraction method for determination of oil and grease concentration. This method is not amenable to performing the sample compositing required in the Tentative Order. For these reasons, EBMUD requests that oil and grease measurements for NPDES permit compliance be performed on grab samples according to the instructions presented below:*

*Monitoring Location EFF-001 IV.A (page E-4)*

- (4) *Each oil and grease sample shall consist of the flow weighted average of three grab samples ~~a composite sample comprised of three grab samples~~ taken at equal intervals during the sampling date, with each grab sample being collected in a glass container. ~~The grab samples shall be mixed in proportion to the instantaneous flow rates occurring at the time of each grab sample, within the accuracy of plus or minus 5%. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent~~ rinsings as soon as possible after use, and the solvent rinsings shall be added to the ~~composite~~ sample for extraction or analysis.*

Response 5

We revised the tentative order to reflect these changes.

**III. East Bay Collection System Satellites – January 25, 2010**

East Bay Collection System Satellites Comment 1

*The Satellites' comment pertains to the rationale provided for Discharge Prohibition III.C in Section IV.A.3.c of the Tentative Order Fact Sheet. The Satellites point out that the terminology used to describe existing and future lateral programs is inconsistent in the Tentative Order. The Satellites indicate that the upper lateral is usually defined as the portion of the sewer lateral extending from a privately-owned structure to the property line to the sewer main or trunk line. A private sewer lateral, defined in EBMUD's July 22, 2009, Stipulated Order mandated by U.S. EPA and the State Water Board, is that which extends from a privately-owned structure to the jurisdiction's collection system. Therefore, it is not consistent with the Stipulated Order for the Tentative Order to suggest, "a potential avenue to achieve I/I reductions is through an aggressive upper lateral replacement program." Confining a lateral replacement program to the upper segment only does not accommodate the different lateral ownership among the jurisdictions tributary to the Main Wastewater Treatment Plant. Using the term private sewer lateral, with a definition consistent with the Stipulated Order, is not only more accurate but its application in a regional program would result in more comprehensive and cost effective reduction of extraneous flow in the system.*

*The Satellites request the following language revisions to page F-15 of the Tentative Order:*

*The Discharger and the other contributing communities are required to develop Sanitary Sewer Management Plans (SSMPs) per the requirements of the Regional Water Board, as well as per the requirements of the State Water Board's General Waste Discharge Requirements for Sanitary Sewer Overflows. Through the development of these programs, there is a potential for communities to identify opportunities for improved I/I reductions. One potential avenue to achieve I/I reductions is through an aggressive ~~upper~~ private sewer lateral replacement program. The Discharger's report, dated February 13, 2007, in support of permit reissuance indicates that experts in the wastewater*

*industry estimate that as much as 60% of I/I can be attributed to upper private laterals. At this time, the Cities of Alameda, Albany, Berkeley, and Stege Sanitary District (collectively represent about 40% of the ~~upper~~ private sewer laterals in EBMUD's service area) have ordinances that require inspection and replacement (if necessary) of leaky private sewer laterals prior to the transfer of title. The Cities of Oakland, Piedmont, and Emeryville currently do not have ordinances to address private laterals.*

#### Response 1

We modified the tentative order to include the suggested changes requested by the Satellites. Additionally, consistent with the Stipulated Order, we included a definition of "private sewer lateral" in Attachment A of the Revised Tentative Order as follows:

**"Private Sewer Lateral** is that which extends from a privately-owned structure to the jurisdiction's collection system."

#### **IV. Editorial Corrections**

##### Correction 1

The tentative order inadvertently required EBMUD to follow a chronic toxicity test method that does not apply to the required test species (*Mytilus sp.*). Additionally, because *Mytilus sp.* may not be available in the summer months, it is appropriate to include an alternative test species. The following changes are to correct this error.

##### **Whole Effluent Toxicity Testing Requirements V.B.1**

- b. *Test Species.* Mussel (*Mytilus sp.*) If *Mytilus sp.* is unavailable, the Discharger may use Pacific Oyster (*Crassostrea gigas*) as a substitute.
- c. *"Methodology.* Sample collection, handling and preservation shall be in accordance with USEPA protocols. In addition, bioassays shall be conducted in compliance with the most recently promulgated test method for *Mytilus sp.*, currently "Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms," (EPA-600-R-95-136, August 1995), ~~as shown in Appendix E-1. These are "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms," currently third edition (EPA-821-R-02-014), and "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," currently fourth Edition (EPA-821-R-02-013), with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).~~"

## Correction 2

To clarify the requirements of Provision 4.c, we modified the tentative order as follows:

### Provision 4.c

#### **Sanitary Sewer Overflows and Sewer System Management Plan**

The Discharger's interceptor conveyance system, except for the 3 WWFs, is part of the facility that is subject to this Order. As such, the Discharger shall properly operate and maintain its conveyance system (Attachment D, Standard Provisions - Permit Compliance, subsection I.D). The Discharger shall report any noncompliance (Attachment D, Standard Provision - Reporting, subsections V.E.1 and V.E.2) and mitigate any discharge from the Discharger's conveyance 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. While the Discharger must comply with both the General Waste Discharge Requirements for Collection System Agencies (General Collection System WDRs) and this Order, the General Collection System WDRs more clearly and specifically stipulates requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows.

Implementation of the General Collection System WDRs for proper operation and maintenance and mitigation of spills 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 ~~and the Regional Water Board's May 1, 2008, letter~~ will satisfy NPDES reporting requirements specified in Attachment D (as supplemented by Attachment G) of the Order for sewage spills from the Discharger's interceptor conveyance ~~collection~~ system.

The Discharger should note that Attachments D and G of this Order specify reporting requirements for unauthorized discharges from anywhere within the WWTP downstream of the WWTP boundaries.