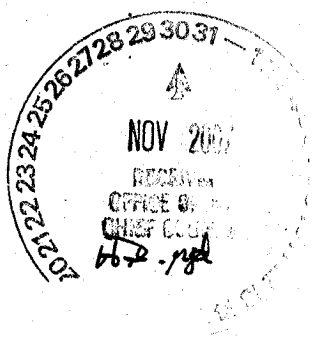
DOWNEY BRAND LLP
MELISSA A. THORME (SBN 151278)
ADAM M. FRIEDMAN (SBN 246491)
555 Capitol Mall, Tenth Floor
Sacramento, CA 95814-4686
Telephone: (916) 444-1000
Facsimile: (916) 444-2100

Attorneys for Petitioner
BAY AREA CLEAN WATER AGENCIES



BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Bay Area Clean Water Agencies' Petition for Review of Action and Failure to Act by the California Regional Water Quality Control Board, San Francisco Bay Region, in Adopting Order No. R2-2007-0075, NPDES Permit No. CA0037541 and Waste Discharge Requirements for the City of San Mateo and an accompanying Cease and Desist Order No. R2-2007-0076.	PETITION FOR REVIEW; PRELIMINARY POINTS AND AUTHORITIES IN SUPPORT OF PETITION (WATER CODE SECTIONS 13320 AND 13321)

Petitioner Bay Area Clean Water Agencies ("BACWA"), in accordance with section 13320 of the Water Code, hereby petitions the State Water Resources Control Board ("SWRCB" or "State Board") to review Order No. R2-2007-0075 of the California Regional Water Quality Control Board, San Francisco Bay Region, ("RWQCB" or "Regional Board") reissuing National Pollution Discharge Elimination System ("NPDES") Permit No. CA0037541 and Waste Discharge Requirements for the City of San Mateo (the "City") as well as an accompanying Cease and Desist Order ("CDO"), No. R2-2007-0076. Copies of Order Nos. R2-2007-0075 and R2-2007-0076, adopted on November 1, 2007, are attached to this Petition as Exhibit A and B, respectfully. The issues and a summary of the bases for the Petition follow. At such time as the full administrative record is available and any other material has been submitted, BACWA reserves the right to file a

detailed memorandum in support of the Petition and/or in reply to the Regional Board's response.[1] In addition, many of these issues are carried over from the previous permit appeal filed by BACWA on the City's previous permit in July of 2001 (SWRCB/OCC File No. A-1397), which is hereby consolidated with this appeal and incorporated by reference herein since it is currently being held in abeyance until August 23, 2008.

BACWA is a joint powers authority ("JPA") whose members own and operate publicly-owned treatment works ("POTWs") that discharge treated effluent to San Francisco Bay and its tributaries. Collectively, BACWA's members serve nearly 7 million people in the nine-county Bay Area, treating all domestic, commercial and a significant amount of industrial wastewater. BACWA was formed to develop a region-wide understanding of the watershed protection and enhancement needs through reliance on sound technical, scientific, environmental and economic information and to ensure that this understanding leads to long-term stewardship of the San Francisco Bay Estuary. BACWA member agencies are public agencies, governed by elected officials and managed by professionals, who are dedicated to protecting our water environment and the public health.

On September 13, 2007, BACWA submitted written comments on the tentative version of NPDES Permit No. CA0037541. For the reasons contained herein, and incorporated by reference as stated above, BACWA asserts that provisions contained in the recently issued permit for the City are improper and inappropriate. BACWA hopes that the State Board will choose to take up this petition and review the issues being raised that are vitally important to Bay Area POTWs.

1. NAME, ADDRESS, TELEPHONE, AND EMAIL FOR PETITIONER:

Michele Pla, Executive Director
Bay Area Clean Water Agencies
P.O. Box 24055 MS 702
Oakland, CA 94623
Telephone: (510) 547-1174
Facsimile: (510) 893-8205 Email: mpla-cleanwater@comcast.net

---

[1] The State Board's regulations require submission of a statement of points and authorities in support of a petition (23 C.C.R. §2050(a)(7)), and this document is intended to serve as a preliminary memorandum. However, it is impossible to prepare a thorough statement or a memorandum that is entirely useful to the reviewer in the absence of the complete administrative record, which is not yet available.

In addition, all materials in connection with this Petition for Review should also be provided to BACWA's special counsel at the following address:

Melissa A. Thorme
Downey Brand LLP
555 Capitol Mall, 10th Floor
Sacramento, California 95814
Telephone: (916) 444-1000
Facsimile: (916) 444-2100 Email: mthorme@downeybrand.com

2. THE SPECIFIC ACTION OF THE REGIONAL BOARD WHICH THE STATE BOARD IS REQUESTED TO REVIEW:

BACWA seeks review of Order Nos. R2-2007-0075 and R2-2007-0076, reissuing NPDES Permit No. CA0037541 for the City (the "Permit") and the accompanying CDO. The specific requirements of the Permit that BACWA requests the State Board to review relate to the following:

A. Numeric-based effluent limits for dioxin-TEQ;

B. Final effluent limits for mercury;

C. Mass limit for mercury;

D. Daily maximum effluent limitations;

E. Compliance schedule action plans for dioxin-TEQ and mercury; and

F. Inclusion of a comprehensive schedule to minimize blending.

The State Board is also requested to review the Regional Board's actions in adopting the Permit for compliance with due process and the California Administrative Procedures Act (Cal. Gov't Code §§11340, *et seq.*); the California Environmental Quality Act ("CEQA," Cal. Pub. Res. Code §21000, *et seq.*); [2] the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000, *et seq.*); the Clean Water Act ("CWA") (33 U.S.C. §§1251, *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130 and 131); the Water Quality Control Plan, San Francisco

---

[2] Although the Permit at II.E. discusses an exemption from CEQA under Water Code §13389, that exemption is narrow, and only exempts Chapter 3. The remaining non-exempted parts of CEQA require all Regional Boards to consider the environmental consequences of their permitting actions, and to explore feasible alternatives and mitigation measures prior to the adoption of waste discharge requirements. *See e.g.*, Cal. Pub. Res. Code §21002; 23 C.C.R. §3733 (which states that the exemption in §13389 "does not apply to the policy provisions of Chapter 1 of CEQA"). Because this issue is currently pending before the California Supreme Court by way of a petition for review, BACWA includes this issue to preserve its rights pending resolution by that Court.

Bay Region (the "Basin Plan"); and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California ("SIP").

3. THE DATE ON WHICH THE REGIONAL BOARD ACTED:

The Regional Board adopted the Permit on November 1, 2007.

4. A STATEMENT OF THE REASONS THE ACTION WAS INAPPROPRIATE OR IMPROPER:

A. <u>The Regional Board Improperly Imposed Numeric Effluent Limitations for Dioxin-TEQ.</u>

BACWA has been concerned about the imposition of numeric effluent limitations for dioxin since the California Toxics Rule ("CTR") was promulgated, notwithstanding that regulations' promise that the "rule would not impose undue or inappropriate burden on the State of California or its dischargers." 65 Fed. Reg. 31687 (May 18, 2000). BACWA was initially hopeful that the United States Environmental Protection Agency's ("USEPA") prediction that costs to meet the CTR criteria would be "unlikely to reach the high-end of the [cost] range because State authorities are likely to choose implementation options that provide some degree of flexibility or relief to the point source dischargers" was accurate; unfortunately, in practice, this has not been the case. *Id.* at 31706. The purpose of this petition is to request that the State use its presumed flexibility when issuing discharge permits where compliance with water quality criteria (whether these criteria are CTR criteria or narrative objectives) has been demonstrated to be infeasible.

The Permit being appealed by BACWA contains concentration limits for dioxin-TEQ, mercury, and mass limitations for mercury. Similar limits were challenged by BACWA in previous administrative and court appeals. Unfortunately, some of the holdings of those previous appeals are not being upheld by the Regional Board. BACWA tried for several years to settle the outstanding petitions on Bay Area POTW permits filed since 2000 by BACWA and others, but disagreement as to legal requirements prevented consummation of a global settlement. Because these issues remain as important today as they did seven years ago, or perhaps more important since the time for final compliance with CTR criteria becomes shorter every day, BACWA continues to press for a final ruling to re-incorporate the "flexibility or relief" promised over the years.

BACWA believes that the Regional Board included interim compliance requirements and final numeric water quality-based effluent limitations ("WQBELs") for these constituents in the Permit that are contrary to the requirements of the CWA and state law.[3] In most cases, these numeric limitations have been demonstrated to be infeasible to meet,[4] and could result in the permitted entities having to construct expensive new treatment facilities, if technology even exists to provide such treatment. These treatment technologies far exceed the mandated treatment requirements of the CWA and will likely become unnecessary once new water quality objectives, site specific objectives, or TMDLs for these substances are in place and finally approved.[5] Such a waste of resources is not reasonable nor required (*see* Water Code §13000), and ignores the fact that control of some substances may instead require a "carefully conceived, agency-approved, long-term pollution control procedure for a complex environmental setting." *Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th 1089, 1107 (2003). For these reasons, BACWA challenges these limits herein as being contrary to federal and state law requirements.

1) Numeric Effluent Limitations are Not Required.

The Regional Board has imposed numeric water quality-based effluent limitations ("WQBELs") for various constituents in the Permit based on 40 C.F.R. §122.44(d). *See* Permit at

---

[3] The Regional Board must ensure its actions to implement the CWA are consistent with any applicable provisions of the CWA and its implementing regulations. Cal. Water Code §13372.

[4] As defined by SWRCB Policy, "infeasible" means "not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." *See* SIP at Appendix 1-3.

[5] Courts have recognized a step-wise process in pollutant control. In *San Francisco BayKeeper v. Whitman*, 287 F.3d 764,766-767 (April 15, 2002), the Ninth Circuit Court of Appeals determined that:

> "[w]hen the NPDES system fails to adequately clean up certain rivers, streams or smaller water segments, the Act requires the use of a water-quality based approach. States are required to identify such waters, which are to be designated as 'water quality limited segments' ('WQLSs'). The states must then rank these waters in order of priority, and based on that ranking, institute more stringent pollution limits called 'total maximum daily loads' or 'TMDLs.' 33 U.S.C. §§1313(d)(1)(A), (C). TMDLs are the maximum quantity of a pollutant the water body can receive on a daily basis without violating the water quality standard. The TMDL calculations are to ensure that the cumulative impacts of multiple point source discharges are accounted for, and are evaluated in conjunction with pollution from non-point sources. States must ***then*** institute whatever additional cleanup actions are necessary, which can **include further controls on both point and nonpoint pollution sources**." (emphasis added).

Thus, the Court reasoned that the TMDL program is the tool for correcting water quality impairments when they are deemed to exist, not continued ratcheting down under the NPDES permitting program. Any other determination would render the TMDL program superfluous.

Section IV.A.2, pg. 11. However, as explained below, section 122.44(d) does not require the imposition of *numeric* WQBELs.

EPA regulations require that "each NPDES permit shall include the following requirements when applicable." *See* 40 C.F.R. § 122.44 (emphasis added). Subsection (d) of this section imposes "any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of the CWA necessary to achieve water quality standards established under Section 303 of the CWA, including State narrative criteria for water quality . . ." 40 C.F.R. § 122.44(d) (emphasis added). The regulations require the imposition of "requirements," not numeric effluent limitations. Furthermore, when numeric effluent limitations are infeasible, EPA regulations specifically authorize the use of Best Management Practices (BMPs) and other non-numeric or narrative requirements in lieu of numeric limits. 40 C.F.R. §122.44(k)(3); *see also* SWRCB Order No. WQ 2003-12 at pg. 9. Alternatively, the Regional Board could have styled this Permit after recent permits in the Central Valley Region, which have imposed final numeric limits, but stated that these limits do not apply if certain actions are undertaken by the discharger. *See* Order Nos. R5-2007-0036 and R5-2007-0039. This approach, which was not vetoed by USEPA, takes a creative approach to dealing with infeasible final limits without the necessity of compliance schedules.

The California Court of Appeal in the *Tesoro* case specifically ruled on this issue and stated that numeric limits are not required, and that, where infeasibility is demonstrated, numeric limits can be replaced with non-numeric requirements. *See Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th at 1103-1105; *see accord In the Matter of the Petition of Citizens for a Better Environment, Save San Francisco Bay Association, and Santa Clara Audubon Society*, SWRCB Order No. WQ 91-03 (May 16, 1991). This appellate decision is binding on the State Board as a party to that case and must be followed in the case of this Permit.

By including final numeric effluent limitations in lieu of non-numeric or narrative requirements where numeric limits have been demonstrated to be infeasible, the Regional Board exceeded federal law requirements. If the Regional Board chooses to exceed federal law requirements, then it must comply with state law requirements. *City of Burbank, et al v. SWRCB, et*

al., 35 Cal. 4th 613, 627-628 (2005). However, the Regional Board failed to comply with the requirements of Water Code §13263(a), which requires consideration of several factors including those contained in Water Code §13241 when adopting numeric effluent limitations more stringent than required by federal law into this Permit.

Thus, the State Board should remand the Permit to the Regional Board and direct the Regional Board to comply with the provisions of 40 C.F.R. §122.44(k)(3), by removing the numeric concentration-based effluent limits for mercury and dioxin-TEQ, and the mass emission limit for mercury, where compliance with such limits has been demonstrated to be infeasible, and replace these numeric limits with narrative requirements (source control, best management practices, etc.) in lieu of the numeric limits.[6]

2) Dioxin-TEQ Limits

The Permit contains the following effluent limitations for dioxin-TEQ:

AMEL (µg/L)	MDEL (µg/L)	Effective Date
1.4×10^{-8}	2.8×10^{-8}	1/31/2018

The CTR did not promulgate numeric water quality criteria for dioxin-TEQ, only for 2,3,7,8-tetrachlorodibenzo-p-dioxin ("2,3,7,8-TCDD"). In addition, no aquatic life criteria were promulgated in the CTR of the Basin Plan for dioxin-TEQ. Only a human-health criteria for municipal ("Water & Organisms"), and non-municipal drinking water supply waters (*e.g.*, "Organisms Only") were set at 0.000000013 and 0.000000014 µg/L, respectively, based on a carcinogenicity risk of $1x10^{-6}$. 40 C.F.R. §131.38(b)(1)(#16). These figures are based on an assumed exposure pathway of consumption of 6.5 grams per day of organisms from the Bay that are contaminated at a level equal to the criteria concentration, but multiplied by a "bioconcentration factor." 65 Fed. Reg. 31693 (May 18, 2000). This amount can be consumed over a lifetime (70 years) without expecting an adverse effect. *Id.* However, current detection technologies cannot measure to these levels.

---

[6] Such an action would negate the need for compliance schedules as well since the City would presumably be able to immediately comply with narrative requirements for the constituents at issue.

The Permit did not show a demonstrated reasonable potential for 2,3,7,8-TCDD. *See* Permit at pg. F-22. However, the same table containing the reasonable potential analysis ("RPA") shows reasonable potential ("RP") for dioxin-TEQ, even though no adopted water quality criteria or objective exists for dioxin-TEQ upon which a RPA could be performed.[7] The Regional Board's action in finding reasonable potential in the absence of applicable numeric water quality criteria was unreasonable, in violation of Water Code §13000, and 40 C.F.R. §122.44(d).

The number used in the RPA was exactly the same as the promulgated criterion for 2,3,7,8-TCDD. The Permit provides:

> "The narrative bioaccumulation WQO is translated into a numeric objective expressed in 2,3,7,8-TCDD equivalents (or dioxin-TEQ) based on the CTR criterion for 2,3,7,8-TCDD and the application of the Toxic Equivalence Factors (TEFs) for dioxins and furans adopted by the World Health Organization in 1998.[8]"

See Permit at pg. F-31. Given that 9 years have passed since the TEFs were first adopted by the WHO, it is unreasonable for the Regional Board to continue to use a broad narrative objective and not adopt numeric objectives and an implementation plan through a formal rulemaking process as required by Water Code §13241 and §13242, and the triennial review process required by CWA section 303, 33 U.S.C. §1313(c) and (e). Moreover, the use of a narrative objective indefinitely to skirt state law requirements also ignores the congressional mandate that water quality standards criteria "shall be specific numeric criteria for such toxic pollutants." 33 U.S.C. §1313(c)(2)(B)(emphasis added).

a) The Regional Board Improperly Utilized the Basin Plan's Narrative Objective for Bioaccumulation to Justify the Imposition of a Dioxin-TEQ Limit.

---

[7] It should be noted that this is contrary to the RPA for other constituents where the Permit states "No Criteria" in the table instead of inserting a non-promulgated criteria. *See* Permit at pg. F-22-24.

[8] The "translated" dioxin-TEQ objective of 0.014 pg/L mirrors the dioxin-TEQ objective in the State Board's 1991 Enclosed Bays and Estuaries Plan ("EBEP"), which was invalidated in 1994 by the Sacramento County Superior Court due to the State Board's failure to consider economics and other factors under Cal. Water Code Section 13241, failure to comply with CEQA, and failure to comply with the Administrative Procedures Act ("APA"). *See Water Quality Control Cases*, Judicial Council Coordination Proceeding No. JC2610, Statement of Decision (Sacramento County Superior Court, Mar. 23, 1994). Following the Court decision, the State Board rescinded the plan, including the dioxin-TEQ objective of 0.014 pg/L. Thus, this invalidated and later rescinded dioxin-TEQ objective should not be used.

In adopting a numeric effluent limitation for dioxin-TEQ, the Regional Board attempted to justify its actions by claiming that the applicable water quality objectives specified in the Basin Plan require limits to protect against unsafe levels of dioxin in the fatty tissue of fish and other organisms. *See* Permit at pg. F-31. The Basin Plan contains no numeric objectives specifically set to define acceptable levels of these constituents in fish tissue or sediment, and the CTR only set numeric criteria for 2,3,7,8-TCDD, not for all the congeners of dioxins. Thus, the Regional Board improperly relied upon the Basin Plan's narrative objective for Bioaccumulation to justify limits for dioxin-TEQ.

In addition, the Regional Board improperly lumped together all of the congeners of dioxin and furans. Had the RPA been done on each individual congener, most if not all would not show reasonable potential because of the varying TEF for each. *See* Permit at pg. F-31. However, pooling all of the congeners together creates an unnecessary finding of reasonable potential for all congeners. The Regional Board's inclusion of an effluent limit for dioxin-TEQ based on all of the congeners of dioxins and furans improperly ignores that the congeners do not create reasonable potential. Imposition of limits on congeners without reasonable potential violates the specific mandates of the Basin Plan and federal regulations.[9]

A review of the Bioaccumulation objective demonstrates that this objective does not provide authorization for the numeric limits imposed in this instance. The Bioaccumulation objective found on page 3-2 of the Basin Plan provides:

> Many pollutants can accumulate on particles, in sediment, or bioaccumulate in fish or other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered. (emphasis added)

Courts have acknowledged that the presence of dioxin may be beyond the Discharger's control. *See, e.g., Communities for a Better Environment*, 109 Cal.App.4th at 1096 ("Dioxins are

---

[9] The insertion of limits without reasonable potential is contrary to permit findings that state "WQBELs are not included in this Order for constituents that do not demonstrate reasonable potential." *See* Permit at pg. F-25, para. C.3.e(2).

not produced intentionally. They are formed as undesired byproducts of combustion and the manufacture and use of certain chlorinated chemical compounds. They exist in the environment worldwide, particularly in air, water, soils, and sediments. They enter the atmosphere through aerial emissions and widely disperse through a number of processes, including erosion, runoff, and volatilization from land or water. For example, automobile exhaust is a common source of dioxins.") Therefore, the minimal contribution of dioxin-TEQ by the City's POTW is not a "controllable water quality factor" that is causing a "detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life," and imposing a limit for dioxin-TEQ is not necessary nor based upon the findings and evidence. Therefore, control of all of these sources is not within the jurisdiction of the City.

Additionally, a numeric effluent limitation can only be imposed through a narrative water quality objective if the narrative objective contains an appropriate mechanism to "translate" the narrative requirement (*i.e.*, to translate a narrative objective into a concentration or mass effluent limitation).[10] In order for a numeric limit derived from a narrative objective to be appropriate, the derivation of the numeric limit must be transparent. A clear explanation of the translation from the narrative water quality objective must be set forth in the NPDES permit.[11] *See* 40 C.F.R.

---

[10] Federal regulations mandate that "[w]here a State adopts narrative criteria for toxic pollutants to protect designated uses, the State must provide information identifying the method by which the State intends to regulate point source dischargers of toxic pollutants on water quality limited segments based on such narrative criteria. Such information may be included as part of the standards . . . ." 40 C.F.R. §131.11(a)(2). Since the Basin Plan's narrative objective for Bioaccumulation does not contain an appropriate translation mechanism, the only conclusion can be that subjective, arbitrary, or wholly inapplicable WQBELs for dioxin-TEQ have been imposed in the Permit. The rationale in the *EBMUD* Order, SWRCB Order No. WQ 2002-0012 at pgs. 6-7 does not apply in this case, since the dioxin-TEQ limits are final WQBELs and were not adopted in conformance with federal regulations as there are no 304(a) guidance criteria for dioxin-TEQ. *See* http://www.epa.gov/waterscience/criteria/wqcriteria.html.

[11] In EPA's official guidance documents, EPA explains at length the process the State must go through to implement an adequate translator mechanism. *See* EPA Water Quality Standards Handbook at 3-13 to 3-26 (1994). Among other things, EPA provides that a State's translator procedure for narrative criteria should specifically describe:

- specific, scientifically defensible methods by which the state will implement its narrative toxicity standard for all priority pollutants;
- how these methods will be integrated into the State's priority pollutant control program;
- methods the State will use to identify those pollutants to be regulated in a specific discharge;
- an incremental cancer risk for carcinogens;
- methods for identifying compliance thresholds in permits where calculated limits are below detection;
- methods for selecting appropriate hardness, pH, and temperature variables for criteria expressed as functions;
- methods or policies controlling the size and in-zone quality of mixing zones;

§124.8(b)(4); *Topanga Ass'n for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506, 515 (1974); *California Edison v. SWRCB*, 116 Cal. App. 3d 751, 761 (1981); *see also In re Petition of the Pinole-Hercules Water Pollution Control Plant and County of San Francisco*, State Board Order No. WQ-95-4 at 10 (Sept. 21, 1995). The failure by the Regional Board to clearly enunciate the translation from a narrative objective to a numeric limit in the Findings or Fact Sheet of the Permit was an abuse of discretion.[12]

b) Meeting the Dioxin Concentration Limit is Not Feasible

As stated above, dioxins enter the environment from a variety of sources, primarily combustion sources. *See Communities for a Better Environment*, 109 Cal. App. 4th at 1096 ("automobile exhaust is a common source of dioxins.") Further, the Regional Board has conceded that compliance with the dioxin-TEQ limits may be infeasible. *See* Permit at pg. F-32, IV.C.4.d.(5)(d). For these reasons, numeric effluent limitations were not required.[13]

The Regional Board's assertion that other strategies, including potential mass offsets (see Permit at pg. 27), could address the impairment ignores two basic points. First, the Regional Board has historically never agreed that there is an "impairment" for dioxin in the Bay.[14] In addition, mass

---

- design flows to be used in translating chemical-specific numeric criteria for aquatic life and human health into permit limits; and
- other methods and information needed to apply standards on a case-by-case basis.

Id. at 3-25; *see also* EPA, TSD for Water Quality-Based Toxics Control at 30-31(1991).

[12] Similar arguments can be made for the imposition of the mercury mass limit, which was also imposed in the last permit (and carried over into this Permit) based on the Bioaccumulation narrative objective. If, despite the above arguments and evidence, the State Board believes that mass should be addressed on a year round performance basis, prior to the completion of an applicable TMDL and implementation of the Mercury Watershed Permit, BACWA requests that the Regional Board be directed to reclassify the proposed kg/month values for mercury as effluent "goals" that, if exceeded, would trigger mandatory, enforceable additional new source identification and control activities beyond those currently being implemented, as is done with chronic toxicity requirements. The distinction between a goal and a limit is that the goal would not be subject to mandatory minimum penalties and unnecessary civil and criminal liability.

[13] The Regional Board should have done what it did in the Vallejo permit, Order No. R2-2006-0056, which was to state: "Due to the limited monitoring data, no dioxin limits (final or interim) are established. The final limits for dioxin TEQ will be based on the WLA assigned to the Discharger in the TMDL. This Order requires additional dioxin monitoring to complement the Clean Estuary Partnership's special dioxin project, consisting of impairment, assessment, and a conceptual model for dioxin loading into the Bay. The permit will be reopened, as appropriate, to include interim dioxin limitations when additional data become available." Order No. R2-2006-0056 at pg. F-24.

[14] *See* Letter and attachments from Loretta Barsamian, RWQCB to Alexis Strauss, EPA Region IX (Jul 14, 1998)("we believe the data do not support any other additions to the list at this time. This is particularly true in the case of

offsets will not address the ability to meet a *concentration* limit. Even the new Regional Board member, Dr. Terry Young, has previously questioned how an offset can be done for concentration. Offset programs for concentration-based limits have not been demonstrated to be feasible. Further, no state policy for offsets exists, so the feasibility of such an approach has not been determined. For these reasons, the numeric limits for dioxin-TEQ imposed in the Permits represent an abuse of discretion.

B. <u>The Regional Board Improperly Included Final Effluent Limits for Mercury.</u>

The City's Permit includes final effluent limits for mercury. Mercury is currently being addressed through alternative means in order to protect beneficial uses for the San Francisco Bay. Requiring final effluent limits that are unachievable by the City for compounds that are awaiting total maximum daily load allocations (mercury, selenium, pesticides) is inappropriate. Further, many of these limits are expressed as daily maximum limits when the impracticability of longer term (weekly and monthly) limits has not been established, contrary to 40 C.F.R. §122.45(d)(2). These final limits should be only provided for reference and should not be enforceable. Therefore, BACWA requests removal of these final concentration limits.

BACWA is specifically concerned about mercury which is being addressed through a recently adopted TMDL. EPA Region 9 has provided an opinion that TMDLs cannot be used to delay the implementation of a final limit in a permit. This is an opinion of EPA Region 9 expressed through their recent SIP disapproval action. However, this is not a regulation adopted by either the state of California nor the USEPA. Furthermore, EPA's recent action is contrary to appellate case law that affirms the deference of final numeric effluent limits until a TMDL can be implemented. For these reasons BACWA strongly objects to having final limits for mercury when BACWA

---

dioxin.")(incorporated herein by reference). The existing 303(d) listings for dioxins and furans in San Francisco Bay were made by USEPA Region IX in a letter dated May 12, 1999. These listings were made as changes (additions) to the 1998 303(d) list, which was originally adopted by the SWRCB, based on a 1994 study (San Francisco Regional Board/ SWRCB/ California Department of Fish and Game, *Contaminant Levels in Fish Tissue from San Francisco Bay*, December 1994). EPA based its determination on an OEHHA fish advisory, and by finding impairment of the Commercial and Sportfishing (COMM) use due to human consumption of fish. However, EPA's finding ignored other important information such as later studies and a 1998 national dioxin health risk study that showed that dioxin levels and dioxin consumption rates of other protein sources (e.g., beef, dairy products) is higher than through fish consumption. *See* Statements by Dr. William Farland, USEPA National Center for Environmental Assessment, 1998.

members have worked tirelessly with the Clean Estuary Partnership (CEP), the Regional Water Board and the State Water Board to have a final mercury TMDL adopted.

BACWA members are essentially being punished just because a final TMDL has not been finally approved. BACWA urges the State Water Board to question EPA Region 9's recent action and to repromulgate compliance schedule authority to deal with TMDL-based schedules as well as allowing compliance schedules for any new or more stringent effluent limit imposed. In the interim, the State Water Board should overturn the use of final limits prior to the implementation of a TMDL.

C. The Regional Board Improperly Imposed Mercury Limits.

1) Mercury Concentration Limits

The Permit contains final concentration limits for mercury at page 11, IV.A.2, Table 6c. These limits were derived from the Basin Plan objectives of 2.1 and 0.025 µg/L,[15] for acute and chronic criteria, respectively. *See* Permit at pg. F-29. There was no reasonable potential to trigger these limits since the objective use to determine reasonable potential was recently deleted from the Basin Plan and no reasonable potential exists under the CTR criteria. *See* Permit at pgs. F-22, F-29.

The 1998 303(d) list stated that "current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources." *See* 1998 303(d) List at pg. 8 (approved by USEPA on

---

More recent studies have also shown the benefits of eating fish notwithstanding health advisories for mercury or dioxins. Therefore, an advisory to avoid fish consumption may actually increase the health risk to Bay area residents.

[15] The 0.025 criterion has been recently removed from the Basin Plan and is no longer a valid water quality objective. BACWA supported removal of that old criterion for the reasons stated in its comments to the State Board in 2005 on the Mercury TMDL. In those comments, BACWA stated the 4-day mercury water quality standard was poorly designed with a bad technical basis in addition to being obsolete. This water quality objective did not take into account the conditions in the Bay where there is shallow water and high winds, causing the sediments to be re-suspended in the water column. In BACWA's review of the RMP data, BACWA concluded that even if mercury levels attained pre-industrial, pre-mining, pristine concentrations of 0.1 ppm, the water column objective of 0.025 µg/L would not be attained everywhere in the Bay without implementing massive dredging projects to modify the Bay's bathymetry. Moreover, the Basin Plan indicates that the 0.025 µg/L standard was based on the level of detection and not necessarily a level to protect aquatic life. *See* 1995 Basin Plan at pg. 3-10, footnote i.

May 12, 1999). Further, EPA's own response to comments stated that "The existence of the fish consumption advisory provides a strong rationale for determining that the fishing beneficial use of the Bay is impaired and that the Bay should be listed on the 303(d) list." *See* Responsiveness Summary for Comments Directed to the State Water Resources Control Board, prepared by Joe Karkoski and Dave Smith, USEPA at pg. 9 (October 19, 1998). Thus, there is no evidence in the listing record that the aquatic life use was impaired, or that the 0.025 µg/L was the water quality standard representing the basis of the 303(d) listing. *See accord* SWRCB Order No. WQ 2001-06 at pgs. 31-33 (remanding mercury concentration limit). In fact, data from the Regional Monitoring Program submitted by the predecessor of BACWA demonstrated that mercury concentrations were not above the 0.025 µg/L levels in the areas of San Francisco Bay to which this objective applied. *See* Letter from Bay Area Dischargers Association to Loretta Barsamian, SFRWQCB at Attachment B (Feb. 2, 1998).

Therefore, the 303(d) listing is not dispositive of a water column impairment and imposing a concentration-based limits for this reason is not justified, particularly when a mass limit is also imposed. For these reasons, the mercury concentration limits should be removed as unnecessary and improperly justified.

2) Mercury Mass Limits

Effluent Limitation IV.B on page 14 of the Permit contains a mass limit for mercury that limits the discharge of this constituent to 0.15 kg/month until such time that a Total Maximum Daily Load ("TMDL")[16] is required under CWA §303(d) and has been completed. *See* Permit at IV.B.

In adopting this permit limitation, the Regional Board acted in a manner that is inconsistent with CWA requirements, as the adoption of water quality-based effluent limitations for POTWs to address an alleged impairment before the adoption and implementation of TMDLs was neither intended by Congress, nor mandated by the CWA.

---

[16] A TMDL is a quantitative assessment of the mass loading of a pollutant that can be discharged to a waterbody each day and still implement the applicable water quality standards.

Congress, in the CWA, required that, where water quality standards were not being implemented even after the imposition of technology-based effluent limits, those waters were to be placed on the "303(d) List" and TMDLs were to be established at a level necessary to implement or achieve the standards. 33 U.S.C. §1313(d)(1)(C). This statutory provision makes clear that Congress intended water quality-based effluent limits to be based on the results of a TMDL process. This interpretation is consistent with the implementation language of the Basin Plan[17] and EPA guidance.[18]

The mere listing of a pollutant on the §303(d) list does not constitute conclusive evidence that there is a lack of assimilative capacity in the receiving water for that pollutant. SWRCB WQ Order No. 2001-06 at 23 (March 7, 2001). Under EPA regulations and the 1998 Clean Water Act Section 303(d) Listing Guidelines for California (August 11, 1997), a water body and pollutant may have been placed on the 303(d) list in the absence of any evidence of an exceedance of the water quality standard or objective for that pollutant or that the water body is otherwise impaired as a result of that pollutant. In fact, a waterbody was allowed to be listed just because the water quality is "of such concern that the Regional Water Board determines the waterbody needs to be afforded a level of protection offered by a 303(d) listing." *See* 1998 Clean Water Act Section 303(d) Listing Guidelines for California (August 11, 1997) at p. 3, para. B.6. Thus, the State's listing may have been *completely independent* of any finding of an actual impairment of water quality and should not be used as a basis for imposing mass limits.[19]

Although effluent restrictions are presumably intended to benefit water quality and the environment, the evidence shows that such benefits will not be realized. POTWs contribute only a

---

[17] The Basin Plan reiterates that "by considering pollutant influx from all sources, wasteload allocation [WLA] supports the identification and implementation of the most effective and economically efficient means of achieving water quality objectives in the larger Estuary system." Basin Plan at 4-2.

[18] *See* Water Quality-based Approach to Pollution Control described in Chapter 7 of EPA's Water Quality Standards Handbook (1994); *see also* 54 Fed. Reg. 23879 (1989) ("Pursuant to section 303(c) of the CWA, states adopt water quality standards, and then, under section 303(d), develop total maximum daily loads (TMDLs), for water quality-limited segments, to attain and maintain the water quality standards....This process results in effluent limits that protect aquatic life and human health because the limits are derived from water quality standards.")

[19] Although the State Board has adopted new listing criteria, it is not clear that all listed waters have been thoroughly reanalyzed under the new criteria for listing and delisting and may remain on the list as remnants of the broader previous listing process.

small percentage of the total pollutant loading to the Bay of toxic pollutants listed on the 303(d) list (including mercury). *See* Bay Area Regional Water Board's 2006 Mercury TMDL Report. Public clean water agencies' contribution to the input of mercury to the Bay, and any corresponding reduction sought in the TMDL is extremely small. Municipal wastewater results in 18 kg/yr out of the 1222 kg/yr total annual loading from all sources. This is less than one-tenth of one percent (.01%) of the total loading. *See* approved Basin Plan Amendment adopting Mercury TMDL at pg. BPA-9; *see also* State Board Res. 2007-0045. Imposing mass limits for mercury does not solve the problem, but merely unfairly targets point sources covered by permits and increases the regulatory burden on public agencies that have already stepped up to the plate to help with mercury reduction efforts voluntarily.[20]

Allowing normal economic growth and development to occur in the City's service area in the interim until the TMDL is finalized would not result in any appreciable degradation in water quality. Furthermore, completely eliminating the City's discharge to the Bay would not result in any measurable or significant improvement in water quality.[21] Therefore, regulation of this *de minimis* source is not reasonable and is likely not required. *See Ober v. USEPA*, 243 F.3d 1190 (9th Cir. 2001)("de minimis exception is allowed for regulation yielding trivial gain"; thus, regulators have "the authority to exempt from regulation those source categories in the area which contribute only negligibly to ambient concentrations which exceed [standards].")

The requirements to limit the *de minimis* mass inputs of mercury to current levels in the Permit[22] and subsequent permits will more likely impede, rather than facilitate, improvements in

---

[20] Recent scientific literature indicates that "...loadings to water in the San Francisco Bay Estuary are dominated by runoff from the Central Valley catchment and remobilization of contaminated sediments deposited during past mining activities." Macleod ES&T, vol.39, No.17, 2005. Many BACWA members have mercury source control programs that include dental amalgam programs and/or fluorescent bulb and thermometer exchange programs.

[21] The total removal of this discharge would make no measurable change in the mercury levels in fish. "[W]hat matters is not the [water]'s current status, but whether the proposed discharge will have a detectable effect on that status." *Arkansas v. Oklahoma*, 503 U.S. 93 (1992).

[22] *See* Permit IV.B, pg. 14 ("Until total maximum daily load (TMDL) and Waste Load Allocation (WLA) efforts for mercury provide enough information to establish a different WQBEL, the Discharger shall demonstrate that the total mercury mass loading from the discharge to Lower San Francisco Bay has not increased ..."). Incidentally, the Regional Board's assertion in previous Orders (*e.g.*, Order No. 01-105) that the State's anti-degradation policy (Resolution 68-16) necessitates the imposition of effluent limitations for constituents found on the State's 303(d) list in

water quality. By causing significant public resources to be expended on projects to meet stringent limits that do little to improve water quality, fewer resources will be available for projects that would actually provide demonstrable improvements in water quality. Such projects will presumably be identified as a part of the TMDL development process.

The imposition of permit restrictions on the City's *de minimis* discharge of 303(d)-listed pollutants (i.e., mercury) prior to the adoption of a TMDL, and in the absence of a clearly articulated legal, scientific or technical basis, constituted a prejudicial abuse of discretion by violating the Basin Plan, the California Water Code, and the CWA.

3) The Regional Board Abused its Discretion by Imposing Both Interim Concentration and Mass Limits on Mercury.

Effluent limitations can be expressed numerically in terms of concentration (*i.e.,* milligrams per liter) or mass (*i.e.,* pounds per day). Federal regulations provide guidance on when to impose which type of effluent limit by stating, in part, that "[a]ll pollutants in permits shall have limitations, standards or prohibitions expressed in terms of mass EXCEPT . . . when applicable standards and limitations are expressed in terms of other units of measurement. . .." 40 C.F.R. §122.45(f)(1) (emphasis added). Thus, if water quality standards are based upon concentration, mass limits are not required. *Id.*

Despite this clear exception to the requirement for mass limits, the Permit contains both mass and concentration effluent limits for mercury. Requiring dual effluent limits (mass and concentration) for the same constituent amounts to a "double ding" in any potential enforcement action, in that an exceedance of a concentration effluent limit may also result in exceedance of the mass limit. Thus, the imposition of mass limits, in addition to concentration limits, unnecessarily exposes these permit holders to additional enforcement actions and mandatory minimum penalties.

Mass limits, in addition to concentration limits, are redundant as mass limits are always implied in POTW permits because of inherent constraints related to a treatment plant's design

---

order to prevent further degradation of a particular water body is faulty. Resolution 68-16 applies to "high quality waters" (*i.e.,* whenever the existing quality of water is better than the quality established in policies as of the date on which such policies became effective) and therefore, does not apply to discharges of constituents for which the receiving water has been determined to be impaired.

capacity or maximum flows. In this case, the Permit specifically prohibits exceeding the average dry weather flow rate of 15.7 mgd for which the facility was designed. *See* Permit at page 9, para. III.D. The combination of a flow restriction and a concentration restriction is equivalent to a mass restriction. Thus, there is no need to explicitly require mass limits in the Permit since the two components of mass (flow and concentration) are already explicitly limited.

Furthermore, performance-based mass limits are particularly troublesome for POTWs as such limits may unjustifiably restrict future growth and economic development in the POTW service area. Such restrictions contradict the Basin Plan's mandate that "control measures employed must be sufficiently flexible to accommodate future changes in technology, population growth, land development, and legal requirements." Basin Plan at 4-7 (emphasis added). By imposing mass limits without considering the need for population growth and land development within the City's service area, the Regional Board violated the Basin Plan, and failed to comply with Water Code §13263(a) when imposing mass limits which are not required when a concentration limit is imposed. 40 C.F.R. §122.44(f).

By imposing duplicative mass limits, the Regional Board has regulated beyond the requirements of federal law and must, therefore, consider the requirements set forth in Water Code section 13263(a), including a consideration of economics and the need for developing housing within particular regions pursuant to Water Code §13241, prior to imposing such growth restricting limits upon POTWs. *See City of Burbank v. State Water Resources Control Board,* 35 Cal.4th 613, 618 (2005). For each of these reasons, the Regional Board violated state law and committed a prejudicial abuse of discretion by including or sanctioning both mass and concentration limits. For these reasons, the State Board should remand the Permit to remove the mass limits on mercury.

D. The Regional Board Improperly Included Daily Maximum Effluent Limitations for Copper, Mercury and Dioxin-TEQ.

Where effluent limitations are authorized, federal regulations provide that for discharges from POTWs, all permit effluent limits shall, unless impracticable, be stated as average

weekly and average monthly discharge limitations.[23] 40 C.F.R. § 122.45(d)(2). The Permit contains several unsupported daily maximum limits, including limits for copper, mercury, and dioxin-TEQ. *See* Permit at pgs. 10-11.

In order to justify the inclusion of these daily limits, the Regional Board first cited to the language of 40 C.F.R. §122.45(d)(1), which states that: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works." *See* Permit at pg. F-18, para. C.1.b.(**1**.). This citation ignores that these discharges *are* from a publicly owned treatment work, and the rule for such a facility is that "average weekly and average monthly discharge limitations [apply] for POTWs." 40 C.F.R. §122.45(d)(2). Therefore, this first justification for daily limits fails.

The State Implementation Policy (SIP) did not change the federal requirements. In enacting the SIP, the State Board may have attempted to modify the federal regulatory prohibition on the use of daily maximum limits for POTWs by stating: "For this method only [referring to limits for aquatic life protection] maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations." SIP at 8, §1.4. However, prior to authorizing the use of daily maximum limitations in POTW permits for compliance with aquatic life criteria in the SIP, the State Board did not make the required demonstration that the imposition of average weekly and average monthly effluent limitations for the protection of aquatic life was "impracticable" per the requirements of 40 C.F.R. §122.45(d). Therefore, the State Board's authorization of daily maximum limitations for compliance with aquatic life criteria does not meet federal requirements or California Water Code Chapter 5.5 requirements for consistency with federal requirements. As such, the Regional Board should remove all daily maximum interim and final effluent limitations based on aquatic life criteria.

---

[23] Federal regulations also provide that discharges from all dischargers other than POTWs, effluent limitations shall be stated as maximum daily and average monthly discharge limitations. 40 C.F.R. §122.45(d)(1).

Further, the State Board did not include in the SIP the same language purportedly allowing for the inclusion of daily maximum limitations in POTW permits for effluent limitations based upon technological requirements (for conventional pollutants) or upon human health criteria. Therefore, even if the SIP provisions pertaining to maximum daily limits for aquatic life criteria were valid, 40 C.F.R. §122.45(d) requires the Regional Board to remove all daily maximum interim and final effluent limitations based on human health criteria or technological requirements.

The Permit never specifies why monthly and weekly average limits are impracticable. The Permit merely states that "MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms." Permit at pg. F-18, para. C.1.c. These statements do not constitute an impracticability analysis, and are inadequate to justify daily limits as there is no evidence to support such generic findings.

Furthermore, at most, these justifications would address only limits based on acute aquatic life criteria. However, the Regional Board did not include limits based on acute aquatic life protection, rather, the limits for mercury and dioxin-TEQ are based on long-term chronic exposure. *See In the Matter of the Own Motion Review of the City of Woodland,* SWRCB Order No. WQ 2004-0010 (holding that "implementing the limits as instantaneous maximums appears to be incorrect because the criteria guidance value . . . is intended to protect against chronic effects.")

Therefore, the Regional Board's inclusion of daily maximum effluent limitations in the Permit, without a specific, pollutant-by-pollutant impracticability analysis, violated 40 C.F.R. §122.45(d)(2) and Water Code Chapter 5.5. By violating federal and state law, the Regional Board proceeded without, or in excess of, its jurisdiction and has committed a prejudicial abuse of discretion by not proceeding in a manner required by law. For these reasons, the State Board should direct the Regional Board to remove the daily maximum effluent limitations not properly analyzed for impracticability. *See accord* SWRCB Order No. 2002-0012 at pg. 20-21 (July 18, 2002)("the Regional Board must include a finding in the permit on remand explaining the impracticability of weekly average limits."); SWRCB Order No. 2002-0015 at pg. 56; *City of Woodland v. Regional Water Quality Control Board for the Central Valley Region, and SWRCB,* Case No. RG04-188200, Statement of Decision at pg. 20.

E. The Regional Board Improperly Imposed Compliance Schedule Action Plans in the Permit and in the CDO which are Overly Stringent.

BACWA is concerned that having stringent schedules contained in the Permit and CDO will eventually require the construction of capital facilities when BACWA has repeatedly been told that building additional treatment is not the expected direction of the Bay Area water quality program. BACWA was under the impression that the direction was to pursue regulatory alternatives, such as TMDLs, site specific objectives, and pollution prevention (as described in the implementation plan for the mercury TMDL). The Permit and CDO veer way off of this intended direction.

Also, this Permit and CDO contain compliance schedules for constituents that have been banned for use, cannot be source controlled, or for which wastewater treatment plant effluents have been identified as non-significant sources. *See* Permit at pgs. 25-27, CDO at pgs. 4-5. Additionally, each constituent is already being addressed through an alternative regulatory strategy that will appropriately resolve beneficial use concerns for the San Francisco Bay. The compliance schedules in the Permit and/or CDO are overly burdensome for every constituent, as specified below:

1) Dioxin-TEQ. The Permit's compliance schedule for dioxin-TEQ is overly burdensome. The dioxin congeners found in fish tissue samples, which form the basis for the dioxin 303(d) listing, are different than the congeners detected in publicly-owner treatment works. Given that the sources of dioxin are uncontrollable by municipal wastewater treatment plants and are primarily introduced through air deposition, the compliance requirements for dioxin reduction in the effluent will have little, if any, environmental benefit to reduce the concentrations of dioxin congeners found in fish tissue. Thus, a *de minimus* exception should be granted in this case at least until the TMDL is finalized. *See Ober v. USEPA*, 243 F.3d 1190, 1195 (9th Cir. 2001)("de minimis exception is allowed for regulation yielding trivial gain.").

2) Mercury. The Regional Board has been in the process of developing a mercury TMDL for at least ten years. The mercury TMDL recently approved by the Regional and State Water Boards contain requirements that have been developed in a meaningful and deliberate way to address the mercury issue holistically throughout the process of its development and deliberation.

Bay Area POTWs are ready to implement the mercury TMDL through activities that will address impairment in San Francisco Bay. This is in contrast to the requirements in the CDO that mandate extensive actions, including significant expenditures of public funds, within the next three to six months solely because the State Water Board has not yet approved the mercury TMDL. This timeline is completely unreasonable given the history of the TMDL process and the insignificant contribution of mercury by municipal wastewater treatment plants to San Francisco Bay. Furthermore, this schedule should be in the Permit, not a separate CDO, as the Basin Plan provides adequate compliance schedule authority.

For these reasons, the action plans in the Permit and/or CDO should be revised to remove all activities related to installation of capital improvements. In addition, any pollution prevention activities should be identical to resolutions or orders already adopted by the Regional Board for specific constituents. No new or different activities should be required for these constituents.

F. The Regional Board Improperly Imposed a Schedule with Enforceable Deadlines to Minimize Blending.

Currently, the City's exercise of the well established practice of blending during peak wet weather flows ensures compliance with the CWA. This practice has never resulted in a violation of the stringent effluent limitations contained in previous NPDES permits, and nothing suggests that future violations may occur. In order to comply with the compliance schedule imposed by the Regional Board to minimize blending, the City is required to complete improvements to the facility by December 31, 2010, and December 31, 2013. *See* Permit at IV.A.6. By including a compliance schedule with enforceable deadlines to minimize blending, the Regional Board violated federal and state law.

1) Inclusion of a Compliance Schedule with Enforceable Deadlines to Minimize Blending in the Permit Violates Applicable Federal Law.

The inclusion of a compliance schedule to minimize blending is contrary to federal and state law and not based on evidence in the record. The Regional Board incorrectly determined that the City's blending practice constituted an illegal "bypass" in violation of 40 C.F.R. §122.41(m). *See* Permit at pg. F-13, para. A.3. The requirements of 40 C.F.R. §122.41(m) do not apply where

the bypass does not cause effluent limitations to be exceeded as long as a POTW could show that such bypass is "for essential maintenance to assure efficient operation." *See* 40 C.F.R. §122.41(m)(2). This regulation does not prohibit operation of treatment facilities in a manner consistent with the design of a facility and does not prohibit blending which is consistent with the design of a facility. *See* 40 C.F.R. §122.41(m)(2).

On occasions, during peak wet weather flows, the City blends primary treated effluent with secondary treated effluent prior to disinfection and discharge to the lower San Francisco Bay. *See* Permit at pg. 5. This well established practice is essential to assure efficient operation of the City's treatment facility during peak wet weather. Also, in all previous permits adopted by the Regional Board, the Regional Board staff recognized that the practice of blending contemplated by the City's engineering design was reasonable and lawful. Thus, the Regional Board is acting contrary to 40 C.F.R. §122.41(m).

2) Inclusion of a Compliance Schedule with Enforceable Deadlines to Minimize Blending in the Permit Violates Applicable State Law.

Water Code section 13360 prohibits the State from dictating the design of treatment facilities or the particular manner in which compliance is achieved. Water Code §13360 ("No waste discharge requirement or other order of a regional board or the state board or decree of a court … shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree.")

By requirement that the City minimize blending by imposing a compliance schedule in the Permit that dictates a re-design of the treatment facility, the Regional Board violated Water Code §13360. *See* Permit at Section VI.C.6, pg. 25.

Furthermore, since minimizing blending is not dictated by federal law, the Regional Board failed to comply with the requirements of Cal. Water Code §13263(a), which requires consideration of several factors including those contained in Cal. Water Code §13241 when adopting compliance schedules for minimizing blending into this Permit. Some of the factors the Regional Board failed to take into consideration when imposing this requirement include economic effects of the requirement, the level of water quality that could reasonably be achieved through the

coordinated control of all factors which affect water quality in the area, and the need for developing housing within the region. *See* Cal. Water Code §13241.

3) The Regional Board should not be Imposing a Compliance Schedule with Enforceable Deadlines to Minimize Blending Before Clear Guidance Is Issued from the EPA.

The inclusion of a compliance schedule to minimize blending is a result of misinterpretation and misapplication of evolving guidance from U.S. EPA on the circumstances under which blending is appropriate. In particular, correspondence from the U.S. EPA to members of Congress in March of 2001, presenting the "current thinking" of U.S. EPA, indicated that blending is appropriate and permissible where certain conditions are satisfied. Blending at the City meets all of the specific criteria, and there is uncontroverted testimony in the record that the design of the project is based on generally accepted engineering practices and criteria.

Also, the EPA and the Office of Management and Budget are still reviewing the current version of a national blending policy. Notably, the EPA has not yet issued a final draft due to the controversy surrounding the prohibition on blending. Furthermore, BACWA does not believe that it is national or state policy that a No Feasible Alternatives Analysis (NFAA) be followed up by an enforcement schedule which may carry penalties. First, the regulation cited, 40 C.F.R. §122.41(m), to require the development of a NFAA, does not require that an enforceable schedule be then placed in the Permit. Second, requirements in this region should not be developed on a permit by permit bases, in advance of how these significant issues are settled nationally.

Furthermore, the City may incur substantial immediate and irreparable harm if it is required to immediately comply with the Permit's compliance schedule to minimize blending. The Permit established an enforceable compliance schedule requiring the City to design and construct facilities to minimize blending. *See* Permit at VI.C.6, pg. 25. Public expenditures for such design and construction may represent a waste of scarce public funds because there are no identified water quality benefits or standards associated with minimizing blending.

///

///

5. THE MANNER IN WHICH THE PETITIONER IS AGGRIEVED:

The Permit and CDO include requirements, challenged herein, which are unreasonable, contrary to legal requirements, and not supported by the findings and evidence in the administrative record. The limits for mercury and dioxin-TEQ are unreasonable because these entities have extremely limited control over influent sources. Further, these requirements could ultimately impose considerable costs on the agency's ratepayers for potential mandatory and discretionary penalties imposed for non-compliance with the challenged requirements, or for construction of additional treatment units to meet limits imposed without a demonstration that such requirements would result in material improvements in the water quality of the Bay. In fact, such expenditures could have a negative impact on water quality, by diverting limited public funds away from other projects that might have a higher potential for improvements in water quality.

BACWA is aggrieved by unreasonable permit prohibitions that may put the City in non-compliance with the Permit and CDO. BACWA's membership will be aggrieved by any permit provisions that cannot now or in the future be met as federal and state law provide harsh sanctions for non-compliance with effluent limitations in a wastewater discharge permit. For example, California Water Code § 13385 prescribes mandatory minimum penalties of $3,000 per day per violation, with narrow exceptions. With this statute, the State has no latitude to excuse noncompliance with the Permit.

Other statutory provisions, while not setting mandatory minimum penalties, create even greater exposure for BACWA's members. The CWA authorizes civil penalties of up to $32,500 per day per violation, 33 U.S.C. § 1319(d), and also authorizes criminal penalties, including the incarceration of public officials, for knowing or negligent permit violations. 33 U.S.C §1319(c); *see U.S. v. Weitzenhoff*, 35 F.3d 1275 (9th Cir. 1994) (managers of treatment plant convicted of permit violations). In addition to enforcement by administrative agencies, private parties can seek civil penalties pursuant to the "citizen suit" provisions of the CWA. *See* 33 U.S.C. § 1365.

Likewise, California's Porter-Cologne Water Quality Act contains stiff penalties for violation of effluent limitations in a wastewater discharge permit. *See* Cal. Water Code §§ 13385 and 13387. This act authorizes a penalty of up to $25,000 per day per violation, with additional

liability not to exceed $25 per gallon if the discharge is to navigable waters of the United States and either is "not susceptible to cleanup or is not cleaned up." Cal. Water Code § 13385(b)(1)-(2), (d). The act also establishes criminal liability for intentional or negligent violation of effluent limitations contained within a permit. Cal. Water Code § 13387(a)-(d).

Furthermore, the application of illegal or unreasonable effluent limitations in violation of federal and state law causes substantial harm to BACWA and its members that have a vested interest in complying with the law. This appeal furthers one of BACWA's express purposes, which is "to represent the interests of the Agency or one or more Member Agencies, including, without limiting the generality of the foregoing, by participating in the appeal of or court challenge of the issuance or denial of issuance of NPDES permits or the adoption or amendment of water quality orders, regulations or decisions."

6. THE SPECIFIC ACTION BY THE STATE OR REGIONAL BOARD WHICH PETITIONER REQUESTS:

Petitioner seeks an Order by the State Board that will remand Order No. R2-2007-0075 to the Regional Board for revisions and will direct the Regional Board to:

A. Remove the numeric effluent limits for dioxin-TEQ;

B. Remove the final effluent limits for mercury;

C. Remove the mass limit for mercury;

D. Remove daily maximum effluent limitations where the Regional Board failed to conduct an impracticability analysis.

E. Revise the compliance schedule action plan for dioxin-TEQ and mercury to (1) remove all activities related to installation of capital improvements and (2) ensure that any pollution prevention activities are identical to resolutions or orders already adopted by the Regional Water Board; and

F. Remove the compliance schedule for minimizing blending.

///

///

///

7. A STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES RAISED IN THE PETITION:

BACWA's preliminary statement of points and authorities is set forth in Section 4 above. Nevertheless, BACWA reserves the right to supplement this statement upon receipt and review of the administrative record.

In Section 4, BACWA asserts that provisions of the Permit and CDO are inconsistent with the law and otherwise inappropriate for various reasons, including: failure to comply with the Porter-Cologne Water Quality Control Act (Cal. Water Code, §§ 13000 *et seq.*); failure to comply with the CEQA (Cal. Public Resources Code, §§ 21000 *et seq.,* and 23 C.C.R. § 3733); failure to comply with the APA (Cal. Gov't Code, §§ 11340 *et seq.*); inconsistency with the Water Quality Control Plan, San Francisco Bay Region (Basin Plan); inconsistency with the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130, and 131); inconsistency with EPA guidance (EPA's Water Quality Standards Handbook (1994, 3^{d} edition)); absence of findings supporting the provisions of the Order; Regional Board findings that are not supported by the evidence; and other grounds that may be or have been asserted by Petitioner.

8. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE REGIONAL BOARD AND TO THE DISCHARGER:

A true and correct copy of this Petition was mailed by First Class mail on November 30, 2007, to the Discharger, and to the Regional Board at the following address:

Bruce Wolfe, Executive Officer
California Regional Water Quality Control Board,
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, California 94612

9. A STATEMENT THAT THE SUBSTANTIVE ISSUES AND OBJECTIONS RAISED IN THE PETITION WERE RAISED BEFORE THE REGIONAL BOARD, OR AN EXPLANATION WHY NOT:

The substantive issues and objections were raised before the Regional Board either in this permitting action, or in previous permitting actions that were appealed to the State Board and

remain in abeyance. The issues raised in the previous Petition that remain at issue were reiterated and incorporated into this Petition.

10. PETITIONER'S REQUEST FOR ABEYANCE:

BACWA requests that the State Board place its Petition for Review in abeyance pursuant to 23 C.C.R. §2050.5(d) to allow time for BACWA to attempt to resolve its concerns with the Regional Board informally.

DATED: November 30, 2007

Respectfully submitted,

Adam Friedman
DOWNEY BRAND LLP
BACWA Special Counsel

EXHIBIT A

Linda S. Adams
Secretary for
Environmental Protection

California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

ORDER NO. R2-2007-0075
NPDES NO. CA0037541

The following Discharger is subject to waste discharge requirements as set forth in this Order.

Table 1. Discharger Information

Discharger	City of San Mateo
Name of Facility	City of San Mateo Wastewater Treatment Plant
Facility Address	2050 Detroit Drive
	San Mateo, CA 94404
	San Mateo County
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the City of San Mateo Wastewater Treatment Plant from the discharge point identified below is subject to waste discharge requirements as set forth in this Order.

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	POTW Effluent	37°, 34', 50" N	122°, 14', 45" W	Lower San Francisco Bay

Table 3. Administrative Information

This Order was adopted by the Regional Water Board on:	**November 1, 2007**
This Order shall become effective on:	**February 1, 2008**
This Order shall expire on:	**January 31, 2013**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date**

IT IS HEREBY ORDERED, that this Order supersedes Order No. 01-071 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on **November 1, 2007**.

Digitally signed by Bruce Wolfe
Date: 2007.11.02 14:40:38 -07'00'

Bruce H. Wolfe, Executive Officer

Table of Contents

Tables

Attachments

I. FACILITY INFORMATION

The following Discharger is subject to the waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	City of San Mateo
Name of Facility	City of San Mateo Wastewater Treatment Plant
Facility Address	2050 Detroit Drive San Mateo, CA 94404 San Mateo County
Facility Contact, Title, and Phone	Wastewater Treatment Plant – Mark Von Aspern, Plant Manager, (650) 522-7385 Collection System – Darla Reams, Deputy Directory/Chief Engineer (650) 522-7304 Pretreatment and Stormwater – Vern Bessey, Environmental Compliance Program Manager, (650) 522-7342
Mailing Address	330 West 20th Avenue San Mateo, CA 94403
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	15.7 mgd (dry weather) and 40 mgd (wet weather)

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Regional Water Board), finds:

A. **Background.** The City of San Mateo Wastewater Treatment Plant (San Mateo WWTP) is currently discharging under Order No. 01-071 and National Pollutant Discharge Elimination System (NPDES) Permit CA0037541. The Discharger submitted a Report of Waste Discharge, dated November 22, 2005, and applied to renew its NPDES permit to discharge up to 15.7 million gallons per day (mgd) of treated wastewater from the San Mateo WWTP. The application was deemed complete on January 10, 2006.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. **Facility Description.** The Discharger owns and operates the San Mateo WWTP, a secondary and advanced secondary wastewater treatment plant, and its conveyance system. The San Mateo WWTP transports and treats domestic, commercial, and industrial wastewater from a service area with a population of approximately 137,000. The following municipalities and counties contribute to influent flows to the San Mateo WWTP: City of San Mateo (population 94,000), City of Foster City (30,000), City of Hillsborough (6,500), City of Belmont (400); and San Mateo County (5,600).

Treated wastewater is discharged from Discharge Point 001 into Lower San Francisco Bay, a water of the State and United States through a submerged diffuser approximately 3,700 feet offshore and 500 feet north of the San Mateo-Hayward Bridge. The diffuser is about 41 feet below the water surface.

The Discharger presently discharges an average year-round flow of approximately 13.0 mgd, an average dry weather flow of 11.7 mgd, and an average wet weather flow of 13.9 mgd from its treatment plant. The treatment plant has a dry weather design capacity of 15.7 mgd and a peak wet weather flow capacity of approximately 40 mgd. The Discharger currently provides secondary treatment of flows up to 40 mgd, and advanced-secondary treatment as needed to meet effluent and receiving water limits in this Order. During high wet weather flows, a portion of primary effluent is routed around biological treatment to the disinfection facility, providing for blending of primary and secondary effluent during wet weather periods when the secondary capacity is exceeded. Treatment facilities consist of primary clarifiers, aeration basins, secondary clarifiers, pressure filters, chlorination, and dechlorination.

In May 2005, construction began for modifications to the solids handling facilities, including a second anaerobic digester and centrifuges. Modifications also include elimination of the Zimpro low-pressure oxidation system and vacuum filters. The planned completion date for these modifications is April 2008.

The Discharger's wastewater collection system includes approximately 257 miles of sanitary sewer lines (gravity lines and force mains) and 23 pump stations.

Attachment B provides a map of the area around the San Mateo WWTP. Attachment C provides a process flow schematic of the San Mateo WWTP.

C. **Legal Authorities.** This Order is issued pursuant to CWA section 402 and implementing regulations adopted by the U.S. EPA and Chapters 5.5, Division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order. The Fact Sheet constitutes part of the Findings for this Order. Attachments A through E and G are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA.

F. **Technology-Based Effluent Limitations.** CWA Section 301(b) and NPDES regulations at 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR 133. A detailed discussion of development of the technology-based effluent limitations development is included in the Fact Sheet.

G. Water Quality-Based Effluent Limitations. CWA section 301(b) and NPDES regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative water quality objectives (WQOs) within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using:

(1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information

(2) An indicator parameter for the pollutant of concern

(3) A calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

H. Water Quality Control Plans. *The Water Quality Control Plan for the San Francisco Bay Basin* (the Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and WQOs for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve WQOs. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board, the Office of Administrative Law, and the U.S. EPA, where required. The Basin Plan implements State Water Resources Control Board (State Water Board) Resolution 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of the marine influence on receiving waters of San Francisco Bay, total dissolved solids levels in the Bay commonly (and often significantly) exceed 3,000 milligrams per liter (mg/L) and thereby meet an exception to State Water Board Resolution 88-63. Therefore, the MUN designation is not applicable to Lower San Francisco Bay. Beneficial uses applicable to Lower San Francisco Bay are as follows.

Table 5. Basin Plan Beneficial Uses of Lower San Francisco Bay

Discharge Point	Receiving Water Name	Beneficial Uses
001	Lower San Francisco Bay	Industrial Service Supply (IND) Navigation (NAV) Water Contact Recreation (REC1) Non-Contact Water Recreation (REC2) Ocean, Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD) Preservation of Rare and Endangered Species (RARE) Fish Migration (MIGR) Shellfish Harvesting (SHELL) Estuarine Habitat (EST)

Requirements of this Order implement the Basin Plan.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain WQC for priority pollutants.

J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule for CTR criterion-based effluent limits may not exceed 5 years from the date the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010). Where a compliance schedule for a final effluent limitation exceeds 1 year, the SIP requires the Order to include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised WQO. This Order includes compliance schedules and interim effluent limitations and/or discharge specifications. A detailed discussion of the basis for the compliance schedule(s) and interim effluent limitation(s) and/or discharge specifications is included in the Fact Sheet.

L. **Alaska Rule.** On March 30, 2000, U.S. EPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000) (codified at 40 CFR 131.21)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to U.S. EPA after May 30, 2000, must be approved by U.S. EPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to U.S. EPA by May 30, 2000, may be used for CWA purposes, whether or not approved by U.S. EPA.

M. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and WQBELs. The technology-based effluent limitations consist of restrictions on oil and grease, pH, total suspended solids (TSS), and five-day carbonaceous biochemical oxygen demand ($CBOD_5$). Restrictions on these pollutants are specified in federal regulations as discussed in Section IV.B of the Fact Sheet (Attachment F). WQBELs have been scientifically derived to implement WQOs that protect beneficial uses. Both

the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by U.S. EPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under state law, and submitted to and approved by U.S. EPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

N. **Antidegradation Policy.** 40 CFR 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16.

O. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in Order No. 01-071, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. 01-071.

P. **Monitoring and Reporting.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

Q. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

R. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections VI.C(1)-(5) and (7) of this Order are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

S. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested organizations and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet of this Order.

T. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater at a location or in a manner different from that described in this Order is prohibited.

B. Discharge of treated wastewater into Lower San Francisco Bay at any point where it does not receive an initial dilution of at least 10:1 is prohibited.

C. 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 40 CFR 122.41(m)(4) and in A.12 of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* (Attachment G).

Blended wastewater is biologically treated wastewater blended with primary-treated wastewater diverted around biological treatment units or advanced treatment units. Such discharges are approved under the bypass conditions stated in 40 CFR 122.41(m)(4) when (1) the Discharger's peak wet weather influent flow volumes exceed the capacity of the secondary treatment units of 40 mgd; (2) the discharge complies with the effluent and receiving water limitations contained in this Order, provided the Discharger satisfies Provision VI.C.5.c. 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 blended effluent discharges in routine monitoring reports and shall conduct monitoring of this discharge as specified in the attached MRP (Attachment E).

D. The average dry weather flow, as measured at station EFF-001 described in the attached MRP (Attachment E), shall not exceed 15.7 million gallons per day. Actual average dry weather flow shall be determined for compliance with this prohibition over three consecutive dry weather months each year.

E. Any sanitary sewer overflow that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Effluent Limitations for Conventional Pollutants

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E).

Table 6a. Effluent Limitations from May 1st to September 30th

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	10	---	20	---	---
pH [1]	standard units	---	---	---	6.0	9.0
Total Suspended Solids (TSS)	mg/L	20	30	---	---	---
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (5-day @ 20 Deg. C)	mg/L	15	25	---	---	---
Chlorine, Total Residual [2]	mg/L	---	---	---	---	0.0 [2]

Table 6b. Effluent Limitations from October 1st to April 30th

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	10	---	20	---	---
pH [1]	standard units	---	---	---	6.0	9.0
TSS	mg/L	30	45	---	---	---
$CBOD_5$	mg/L	25	40	---	---	---
Chlorine, Total Residual [2]	mg/L	---	---	---	---	0.0 [2]

[1] If the Discharger monitors pH continuously, pursuant to 40 CFR 401.17, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied: (i) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the range of pH values shall exceed 60 minutes.

[2] This requirement is defined as below the limit of detection in standard test methods, as defined in 40 CFR 136. The discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, sodium hypochlorite, and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Water Board staff will conclude that these false positive chlorine residual exceedances are not violations of this Order limit. Samples for this parameter may be collected at Monitoring Location EFF-001-D.

b. **$CBOD_5$ and TSS 85% Percent Removal:** The average monthly percent removal of $CBOD_5$ and TSS values, by concentration, shall not be less than 85 percent.

c. **Fecal Coliform Bacteria:** The treated wastewater shall meet the following limits of bacteriological quality:

(1) The five day log mean fecal coliform density shall not exceed 200 MPN/100ml; and

(2) The 90th percentile fecal coliform value shall not exceed 400 MPN/100 ml.

d. Enterococci Bacteria: The monthly geometric mean enterococci bacteria concentration shall not exceed 35 MPN/100 mL.

2. Effluent Limitations for Toxics Substances – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E):

Table 6c. Toxic Substances Effluent Limitations

Parameter	Units	Effluent Limitations [1, 4]				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Copper [2]	µg/L	72	---	96	---	---
Mercury	µg/L	0.020	---	0.043	---	---
Nickel	µg/L	30	---	71	---	---
Cyanide [5]	µg/L	12	---	20	---	---
Dioxin-TEQ [3]	µg/L	1.4×10^{-8}	---	2.8×10^{-8}	---	---
Ammonia (Total as N)	mg/L	66	---	120	---	---

[1] (a) Limitations apply to the average concentration of all samples collected during the averaging period (daily = 24-hour period; monthly = calendar month).

(b) All metals limitations are expressed as total recoverable metal.

[2] Alternate Effluent Limits for Copper:

a. If a copper Site Specific Objective (SSO) for the receiving water becomes legally effective, resulting in adjusted saltwater Criterion Continuous Concentration (CCC) of 2.5 micrograms per liter (µg/l) and Criterion Maximum Concentration (CMC) of 3.9 µg/l as documented in the *North of Dumbarton Bridge Copper and Nickel Site-Specific Objective (SSO) Derivation (Clean Estuary Partnership March 2005)*, upon its effective date, the following limitations shall supersede those copper limitations listed in Table 6c (the rationale for these effluent limitations can be found in the Fact Sheet [**Attachment F**]).

Maximum Daily Effluent Limit (MDEL) of 72 µg/L, and Average Monthly Effluent Limit (AMEL) of 54 µg/L.

b. If a different copper SSO for the receiving water is adopted, the alternate WQBELs based on the SSO will be determined after the SSO effective date.

[3] The Discharger shall comply with the compliance schedule tasks and deadlines described in Section VI.C.7. Final limits for dioxin-TEQ will take effect on January 31, 2018.

[4] A daily maximum or average monthly value for a given constituent shall be considered noncompliant with the effluent limitations only if it exceeds the effluent limitation and the Reporting Level for that constituent. As outlined in Section 2.4.5 of the SIP, the table below indicates the Minimum Level (ML) for compliance determination purposes. An ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

(5) Alternate Effluent Limits for Cyanide

a. If a cyanide SSO for the receiving water becomes legally effective, resulting in adjusted saltwater criteria CCC of 2.9 µg/l (based on the assumptions in Draft Staff Report on Proposed Site-Specific Water Quality Objectives and Effluent Limit Policy for Cyanide for San Francisco Bay, dated December 4, 2006), upon its effective date, the following limitations shall supersede those cyanide limitations listed in Table 6c (the rationale for these effluent limitations can be found in the Fact Sheet [**Attachment F**]).

MDEL of 38 µg/L, and AMEL of 22 µg/L.

b. If a different cyanide SSO for the receiving water is adopted, the alternate WQBELs based on the SSO will be determined after the SSO effective date.

Table 7. Minimum Levels for Pollutants with Effluent Limitations

Parameter	Minimum Level	Units
Copper	2	µg/L
Mercury	0.0005	µg/L
Nickel	5	µg/L
Cyanide	5	µg/L
2,3,7,8-TCDD	5	pg/L
1,2,3,7,8-PeCDD	25	pg/L
1,2,3,4,7,8-HxCDD	25	pg/L
1,2,3,6,7,8-HxCDD	25	pg/L
1,2,3,7,8,9-HxCDD	25	pg/L
1,2,3,4,6,7,8-HpCDD	25	pg/L
OCDD	50	pg/L
2,3,7,8-TCDF	5	pg/L
1,2,3,7,8-PeCDF	25	pg/L
2,3,4,7,8-PeCDF	25	pg/L
1,2,3,4,7,8-HxCDF	25	pg/L
1,2,3,6,7,8-HxCDF	25	pg/L
1,2,3,7,8,9-HxCDF	25	pg/L
2,3,4,6,7,8-HxCDF	25	pg/L
1,2,3,7,8-PeCDF	25	pg/L
2,3,4,7,8-PeCDF	25	pg/L
1,2,3,4,7,8-HxCDF	25	pg/L
1,2,3,6,7,8-HxCDF	25	pg/L
1,2,3,7,8,9-HxCDF	25	pg/L
2,3,4,6,7,8-HxCDF	25	pg/L
1,2,3,4,6,7,8-HpCDF	25	pg/L
1,2,3,4,7,8,9-HpCDF	25	pg/L
OCDF	50	pg/L

3. Acute Toxicity:

a. Representative samples of the effluent at Discharge Point 001 shall meet the following limits for acute toxicity: Bioassays shall be conducted in compliance with Section V.A of the Monitoring and Reporting Program [MRP] (Attachment E).

The survival of organisms in undiluted combined effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival.

b. These acute toxicity limitations are further defined as follows:

11 sample median: A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

90th percentile: A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit if one or more of the past ten or less bioassay tests show less than 70 percent survival.

c. Bioassays shall be performed using the most up-to-date U.S. EPA protocol and the most sensitive species as specified in writing by the Executive Officer based on the most recent screening test results. Bioassays shall be conducted in compliance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms," currently 5th Edition (EPA-821-R-02-012), with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP) upon the Discharger's request with justification.

d. If the Discharger can demonstrate to the satisfaction of the Executive Officer that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge is not adversely impacting receiving water quality or beneficial uses, then such toxicity does not constitute a violation of this effluent limitation.

4. Chronic Toxicity

a. 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 at Discharge Point 001 meeting test acceptability criteria and Section V.B of the MRP (Attachment E).

(1) Conduct routine monitoring.

(2) Accelerate monitoring after exceeding a single-sample maximum of 10 TUc, consistent with Table 4-5 of the Basin Plan for dischargers monitoring chronic toxicity semi-annually. Accelerated monitoring shall consist of monthly monitoring.

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

(4) If accelerated monitoring confirms consistent toxicity above either "trigger" in (2), above, initiate toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE) in accordance with a workplan submitted in accordance with Section V.B.3 of the MRP (Attachment E) and that incorporates any and all comments from the Executive Officer.

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

Failure to conduct the required toxicity tests or a toxicity reduction evaluation (TRE) within a designated period shall result in the establishment of effluent limitations for chronic toxicity.

b. Test Species and Methods

The Discharger shall conduct routine monitoring with the test species and protocols specified in Section V.B of the MRP (Attachment E). The Discharger shall also perform Chronic Toxicity Screening Phase monitoring as described in the Appendix E-1 of the MRP (Attachment E). Chronic Toxicity Monitoring Screening Phase Requirements, Critical Life Stage Toxicity Tests and definitions of terms used in the chronic toxicity monitoring are identified in Appendices E-1 and E-2 of the MRP (Attachment E).

B. Mercury Mass Emission Limitation

Until total maximum daily load (TMDL) and Waste Load Allocation (WLA) efforts for mercury provide enough information to establish a different WQBEL, the Discharger shall demonstrate that the total mercury mass loading from the discharge to Lower San Francisco Bay has not increased by complying with the following:

1. Mass Emission Limit: The mass emission limit for mercury is 0.15 kilograms per month (kg/month). The total mercury mass load shall not exceed this limit.

2. Compliance with this limit shall be evaluated using running annual average mass load. Running annual averages shall be calculated by taking the arithmetic average of the current monthly mass loading value (see sample calculation below) and the previous 11-months values. Sample calculation:

   Flow (mgd) = Average of monthly plant effluent flows in mgd.

   Constituent Concentration (µg/L) = Average of monthly effluent concentration measurements in µg/L. If more than one measurement is obtained in a calendar month, the average of these measurements is used as the monthly value for that month. If test results are less than the method detection limit used, the measurement value is assumed to be equal to the method detection limit.

   Mass Loading (kg/month) = (Flow) x (Constituent Concentration) x (0.1151).

This mass emission limit is consistent with the current *Mercury in San Francisco Bay Proposed Basin Plan Amendment and Staff Report for Revised Total Maximum Daily Load (TMDL) and Proposed Mercury Water Quality Objectives* (August 1, 2006) and will be superseded upon completion of a TMDL and adoption of new mercury limits based on the TMDL. According to the antibacksliding rule in the Clean Water Act, Section 402(o), the permit may be modified to include a less stringent requirement following completion of a TMDL.

C. Reclamation Specifications

Not Applicable.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. Receiving water limitations are based on WQOs contained in the Basin Plan and are a required part of this Order. The discharges shall not cause the following in Lower San Francisco Bay:

   a. Floating, suspended, or deposited macroscopic particulate matter or foams;

   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil and other products of petroleum origin; and

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State within one foot of the water surface:

   a. Dissolved Oxygen — 5.0 mg/L, minimum

      The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

   b. Dissolved Sulfide — Natural background levels

   c. pH — Within 6.5 and 8.5

B. Groundwater Limitations

Not Applicable.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with Federal Standard Provisions included in Attachments D and H of this Order.

2. The Discharger shall comply with all applicable provisions of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* (Attachment G), including any amendments thereto. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in the Standard Provisions, the specifications of this Order shall apply. Duplicative requirements in the federal Standard Provisions in VI.A.1.2, above (Attachment D) and the regional Standard Provisions (Attachment G) are not separate requirements. A violation of a duplicative requirement does not constitute two separate violations.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. The Discharger shall also comply with the requirements contained in *Self Monitoring Programs, Part A*, August 1993 (Attachment G).

C. Special Provisions

1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

a. If present or future investigations demonstrate that the discharge governed by this Order will have, or will cease to have, a reasonable potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters;

b. If new or revised WQOs or TMDLs come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs and waste load allocations in TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted WQOs, TMDLs, or as otherwise permitted under Federal regulations governing NPDES permit modifications;

c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified;

d. If administrative or judicial decision on a separate NPDES permit or WDR that addresses requirements similar to this discharge;

e. Or as otherwise authorized by law.

The Discharger may request permit modification based on the above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis.

2. **Special Studies and Additional Monitoring Requirements**

a. **Blending Monitoring Study.** The Discharger shall comply with the following tasks and deadlines:

Tasks	Compliance Date
(1.) *Blending Study Plan.* The study plan shall outline data collection for demonstrating that TSS is an appropriate indicator of compliance with other effluent limitations during blending events.	July 1, 2008
(2) *Implementation of the Study Plan.* Upon approval by the Executive Officer, or after 45 days of the study plan submittal if the Executive Officer has not commented, the Discharger shall conduct the study plan.	No later than August 14, 2008
(3) F*inal Report.* The Discharger shall submit a report, acceptable to the Executive Officer. The report shall include an analysis of TSS as an indicator of compliance with effluent limitations, and a recommendation for a TSS trigger value, if appropriate. The purpose of the TSS trigger is for use in triggering additional monitoring during blending events.	As specified in the study plan, but no later than June 30, 2013

b. **Effluent Characterization for Selected Constituents.** The Discharger shall continue to monitor and evaluate the discharge from Outfall 001 (measured at EFF-001) for the constituents listed in Enclosure A of the Regional Water Board's August 6, 2001 Letter according to the sampling frequency specified in the attached MRP (Attachment E). Compliance with this requirement shall be achieved in accordance with the specifications stated in the Regional Water Board's August 6, 2001 Letter under Effluent Monitoring for Major Dischargers.

The Discharger shall evaluate on an annual basis if concentrations of any constituent increase over past performance. The Discharger shall investigate the cause of the increase. The investigation may include, but need not be limited to, an increase in the effluent monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. This may be satisfied through identification of these constituents as "Pollutants of Concern" in the Discharger's Pollutant Minimization Program described in Provision C.3.b, below. A summary of the annual evaluation of data and source investigation activities shall also be reported in the annual self-monitoring report.

A final report that presents all the data shall be submitted to the Regional Water Board no later than 180 days prior to the Order expiration date. This final report shall be submitted with the application for permit reissuance.

c. Ambient Background Receiving Water Study

The Discharger shall collect or participate in collecting background ambient receiving water monitoring for priority pollutants that is required to perform a reasonable potential analysis (RPA) and to calculate effluent limitations. The data on the conventional water quality parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through monitoring through the Collaborative Bay Area Clean Water Agencies (BACWA) Study, or a similar ambient monitoring program for San Francisco Bay. This Order 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 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.

d. Optional Mass Offset

If the Discharger demonstrates that further net reductions of the total mass loadings of 303(d)-listed pollutants to the receiving water can only be achieved through a mass offset program, the Discharger may submit a mass offset plan to reduce 303(d)-listed pollutants to the same watershed or drainage basin to the Regional Water Board for approval. The Discharger must demonstrate that economically feasible measures, such as aggressive source control, wastewater reuse, and treatment plant optimization, will not further reduce total mass loadings. The Regional Water Board may modify this Order to allow an approved mass offset program.

3. Best Management Practices and Pollution Minimization

a. Pollution Minimization Program

The Discharger shall continue to improve, in a manner acceptable to the Executive Officer, its existing Pollutant Minimization Program to promote minimization of pollutant loadings to the treatment plant and therefore to the receiving waters. In addition, the Discharger shall implement any applicable pollutant minimization measures described by Basin Plan implementation requirements associated with the SSOs for copper and cyanide, if and when each of those SSOs become effective and alternate limitations take effect.

b. Annual Pollution Prevention Report

The Discharger shall submit an annual report, acceptable to the Executive Officer, no later than February 28 of each calendar year. The annual report shall cover January

through December of the preceding year. Each annual report shall include at least the following information:

(1) *A brief description of its treatment plant, treatment plant processes, and service area.*

(2) *A discussion of the current pollutants of concern.* Periodically, the Discharger shall determine which pollutants are currently a problem and/or which pollutants may be potential future problems. This discussion shall include the reasons why the pollutants were chosen.

(3) *Identification of sources for the pollutants of concern.* This discussion shall include how the Discharger intends to estimate and identify pollutant sources. The Discharger should also identify sources or potential sources not directly within the ability or authority of the Discharger to control, such as pollutants in the potable water supply and air deposition.

(4) *Identification of tasks to reduce the sources of the pollutants of concern.* This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. The Discharger may implement the tasks themselves or participate in group, regional, or national tasks that will address its pollutants of concern whenever it is efficient and appropriate to do so. A time line shall be included for the implementation of each task.

(5) *Outreach to employees.* The Discharger shall inform its employees about the pollutants of concern, and their potential sources. The Discharger shall also inform its employees about how they might be able to help reduce the discharge of these pollutants. The Discharger may provide a forum for employees to provide input to the program.

(6) *Continuation of Public Outreach Program.* The Discharger shall prepare a public outreach program to communicate pollution minimization measures to its service area. Outreach may include participation in existing community events such as county fairs, initiating new community events such as displays and contests during Pollution Prevention Week, conducting school outreach programs, conducting plant tours, and providing public information in various media. Information shall be specific to target audiences. The Discharger shall coordinate with other agencies as appropriate.

(7) *Discussion of criteria used to measure Program's and tasks' effectiveness.* The Discharger shall establish criteria to evaluate the effectiveness of its Pollution Minimization Program. This discussion shall include of the specific criteria used to measure the effectiveness of each of the tasks in item b.3., b.4., b.5., and b.6.

(8) *Documentation of efforts and progress.* This discussion shall detail all of the Discharger's activities in the Pollution Minimization Program during the reporting year.

(9) *Evaluation of Program's and tasks' effectiveness.* The Discharger shall use the criteria established in b. to evaluate the Program's and tasks' effectiveness.

(10) *Identification of specific tasks and time schedules for future efforts.* Based on the evaluation, the Discharger shall detail how it intends to continue or change its tasks to reduce more effectively the amount of pollutants to the treatment plant and subsequently its effluent.

c. Pollutant Minimization Program for Reportable Priority Pollutants

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as "Detected, But Not Quantified" (DNQ) when the effluent limitation is less than the minimum level (ML), sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

(1) A sample result is reported as DNQ and the effluent limitation is less than the reporting level (RL); or

(2) A sample result is reported as "Non-Detect" (ND) and the effluent limitation is less than the MDL, using definitions described in the SIP.

d. If triggered by the reasons in c. above, the Discharger's PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(1) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling, or alternative measures approved by the Executive Officer when it is demonstrated that source monitoring is unlikely to produce useful analytical data;

(2) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system, or alternative measures approved by the Executive Officer, when it is demonstrated that influent monitoring is unlikely to produce useful analytical data;

(3) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

(4) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

(5) The annual report required by 3.b. above shall specifically address the following items:

i. All PMP monitoring results for the previous year;

ii. A list of potential sources of the reportable priority pollutant(s);

iii. A summary of all actions undertaken pursuant to the control strategy; and

iv. A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. Wastewater Facilities, Review and Evaluation, and Status Reports

(1) The Discharger shall operate and maintain its wastewater collection, treatment, and disposal facilities in a manner ensuring that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

(2) The Discharger shall regularly review and evaluate its wastewater facilities and operation practices in accordance with section a.1 above. Reviews and evaluations shall be conducted as an ongoing component of the Discharger's administration of its wastewater facilities.

(3) The Discharger shall provide the Executive Officer, upon request, a report describing the status of its wastewater facilities and operation practices, including any recommended or planned actions and an estimated time schedule for these actions. The Discharger shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures, and applicable wastewater facility programs or capital improvement projects.

b. Operations and Maintenance Manual (O&M), Review, and Status Reports

(1) The Discharger shall maintain an O&M Manual for the Discharger's wastewater facilities. The O&M Manual shall be maintained in usable condition and be available for reference and use by all applicable personnel.

(2) The Discharger shall regularly review, revise, or update, as necessary, the O&M Manual(s) to ensure that the document(s) may remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary. For any significant changes in treatment facility equipment or operation practices, applicable revisions shall be completed within 90 days of completion of such changes.

(3) The Discharger shall provide the Executive Officer, upon request, a report describing the status of its O&M manual, including any recommended or planned actions and an estimated time schedule for these actions. The Discharger shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures and applicable changes to its operations and maintenance manual.

c. Contingency Plan, Review, and Status Reports

(1) The Discharger shall maintain a Contingency Plan as required by Regional Water Board Resolution 74-10 (Attachment G) and as prudent in accordance with current municipal facility emergency planning. The discharge of pollutants in violation of

this Order where the Discharger has failed to develop and/or adequately implement a Contingency Plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

(2) The Discharger shall regularly review and update, as necessary, the Contingency Plan so that the plan may remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and updates shall be completed as necessary.

(3) The Discharger shall provide the Executive Officer, upon request, a report describing the status of its Contingency Plan review and update. The Discharger shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures and applicable changes to its Contingency Plan.

5. Special Provisions for Publicly Owned Treatment Works (POTWs)

a. Pretreatment Program

(1) Pretreatment Program: The Discharger shall implement and enforce its approved pretreatment program in accordance with federal Pretreatment Regulations (40 CFR § 403), pretreatment standards promulgated under Sections 307(b), 307(c), and 307(d) of the Clean Water Act, pretreatment requirements specified under 40 CFR § 122.44(j), and the requirements in Attachment H, "Pretreatment Requirements." The Discharger's responsibilities include, but are not limited to:

i. Enforcement of National Pretreatment Standards of 40 CFR §§ 403.5 and 403.6;

ii. Implementation of its pretreatment program in accordance with legal authorities, policies, procedures, and financial provisions described in the General Pretreatment regulations (40 CFR § 403) and its approved pretreatment program;

iii. Submission of reports to U.S. EPA, the State Water Board, and the Regional Water Board, as described in Attachment H "Pretreatment Requirements".

iv. Evaluate the need to revise local limits under 40 CFR § 403.5(c)(1); and within 180 days after the effective date of this Order, submit a report acceptable to the Executive Officer describing the changes with a plan and schedule for implementation. To ensure no significant increase in the discharge of copper, and thus compliance with antidegradation requirements, the Discharger shall not consider eliminating or relaxing local limits for copper in this evaluation.

(2) The Discharger shall implement its approved pretreatment program and the program shall be an enforceable condition of this Order. If the Discharger fails to perform the pretreatment functions, the Regional Water Board, the State Water Board, or the U.S. EPA may take enforcement actions against the Discharger as authorized by the Clean Water Act.

b. Sludge Management Practices Requirements

(1) All sludge generated by the Discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill 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 U.S. EPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR §503 are enforceable by U.S. EPA 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 U.S. EPA regarding sludge management practices.

(2) Sludge treatment, storage and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.

(3) The Discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal that is likely to have an adverse effect on human health or the environment.

(4) The discharge of sludge shall not cause waste material to be in a position where it is or can be carried from the sludge treatment and storage site and deposited in waters of the State.

(5) The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

(6) For sludge that is applied to the land, placed on a surface disposal site, or fired in a sludge incinerator as defined in 40 CFR §503, the Discharger shall submit an annual report to U.S. EPA and the Regional Water Board containing monitoring results and pathogen and vector attraction reduction requirements as specified by 40 CFR §503, postmarked February 15 of each year, for the period covering the previous calendar year.

(7) Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR §258. In the annual self-monitoring report, the Discharger shall include the amount of sludge disposed of and the landfill(s) to which it was sent.

(8) Permanent on-site sludge storage or disposal activities are not authorized by this Order. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the Discharger.

(9) Sludge Monitoring and Reporting Provisions of this Regional Water Board's Standard Provisions (Attachment G), apply to sludge handling, disposal and reporting practices.

(10) The Regional Water Board may amend this Order prior to expiration if changes occur in applicable state and federal sludge regulations.

c. Utility Analysis and Implementation Schedule for Wet Weather Bypass of Secondary Treatment

At least 180 days prior to the Order expiration date, the Discharger shall complete a utility analysis if it seeks to continue to bypass peak wet weather flows around its secondary treatment units. The utility analysis must satisfy 40 CFR 122.4 (m)(4)(i)(A)-(C) and any applicable policy or guidance such as the process set forth in Part 1 of U.S. EPA's Peak Wet Weather Policy's No Feasible Alternatives Analysis Process (available at *http://cfpub.epa.gov/npdes/wetweather.cfm*) once it is finalized. Specifically, the Discharger shall fully evaluate if it has maximized its ability to reduce inflow/infiltration (I/I) throughout the entire collection system (i.e., the portions operated by the Discharger and those operated by its member agencies). The Discharger's evaluation shall include (1) its use of existing legal authorities; (2) potential improvements in the timing or quality of such efforts; and (3) options for obtaining or expanding legal authorities to reduce I/I from satellite collection systems.

d. 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 Discharger 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 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 WDR) and this Order, the General Collection System WDR more clearly and specifically stipulates requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows.

Implementation of the General Collection System WDR requirements for proper operation and maintenance and mitigation of spills will satisfy the corresponding federal NPDES requirements specified in this Order. Following reporting requirements in the General Collection System WDR will satisfy NPDES reporting requirements for sewage spills. 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 sanitary sewer overflow reporting program.

6. Corrective Measures to Minimize Blending Events

The Discharger shall comply with the following tasks and deadlines to complete its Wet Weather Improvement Project, and to address Inflow and Infiltration into Satellite collection Systems:

Tasks	Completion Date
1. *Capacity Evaluation.* Evaluate the capacity of the collection system and the flows anticipated at the treatment plant after collection system improvements. Develop alternatives for handling increased flows.	August 1, 2009.
2. *Collection System Improvements.* Complete sewer rehabilitation and relief sewer projects. Projects currently scheduled include: a. Sewer Rehabilitation ($2 million/year) b. Las Prados Relief Sewers c. South Trunk System Upgrade d. El Cerrito Relief Line e. Force Main, Dale Avenue to WWTP	Budgeted in Capital Improvement Plan (CIP)*: a. December 31, 2013 b. December 31, 2010 c. December 31, 2013 d. December 31, 2010 e. December 31, 2010
3. Hydraulic Improvements/Outfall. Complete hydraulic improvements recommended in capacity evaluation.	December 31, 2013.
4. Treatment Plant Capacity Improvements. Complete treatment plant hydraulic capacity improvements pending results of capacity evaluation.	December 31, 2013.

* Completion of projects is conditional on passage of currently scheduled rate increases.

7. Dioxin-TEQ Compliance Schedule

The Discharger shall comply with the following tasks and deadlines:

Task	Deadline
1. Continue semi-annual monitoring for dioxin-TEQ at monitoring point E-001.	Upon the effective date of this Order.
2. Report on the status of dioxin-TEQ monitoring and analytical results semi-annually no later than April 15 and October 15 of each calendar year in the March and September self-monitoring reports.	Upon the effective date of this order.

Task	Deadline
3. If dioxin-TEQ monitoring data show that the Discharger is out of compliance, as described in Section 2.4.5, Compliance Determination, of the State Implementation Policy, with the final water quality based effluent limits specified in Effluent Limitations and Discharge Specifications A.2, the Discharger shall identify and implement source control measures to reduce concentrations of dioxin-TEQ to the treatment plant, and therefore to receiving waters.	No later than 12 months after a detection of dioxin-TEQ that is out of compliance with the final effluent limits.
4. The Discharger shall evaluate and report on the effectiveness of its source control measures in reducing concentrations of dioxin-TEQ to its treatment plant. If, following previous measures, monitoring data show that the Discharger remains out of compliance with final limits for dioxin-TEQ, the Discharger shall also identify and implement additional source control measures to reduce concentrations of this pollutant.	Annually in the Annual Best Management Practices and Pollutant Minimization Report required by Provision VI.C.3.
5. In the event that, following previously implemented source control measures, monitoring data show that the Discharger is out of compliance with final water quality based effluent limits specified in Effluent Limitations and Discharge Specifications A.2 for dioxin-TEQ, the Discharger shall submit a schedule for implementation of additional actions to reduce the concentrations of this pollutants.	July 1, 2011
6. The Discharger shall commence implementation of the identified additional actions in accordance with the schedule submitted in task 5, above.	August 15, 2011
7. Full Compliance with IV. Effluent Limitations and Discharger Specifications A.2 for dioxin-TEQ. Alternatively, the Discharger may comply with the limit through	January 31, 2018

Task	Deadline
implementation of a mass offset strategy for dioxin-TEQ in accordance with policies in effect at that time.	

8. Action Plan for Cyanide

The Discharger shall initiate implementation of an action plan for cyanide as described in Appendix I of "Staff Report on Proposed Site-Specific Water Quality Objectives for Cyanide for San Francisco Bay," December 4, 2006.

9. Action Plan for Copper

If and when the alternate limits for copper in Section IV become effective, the Discharger shall initiate implementation of an action plan for copper in accordance with the Basin Plan Copper SSO Amendment.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP, Attachment A and Section VI of the Fact Sheet 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 RL.

B. Multiple Sample Data.

When determining compliance with an Average Monthly Effluent limit (AMEL) or Maximum Daily Effluent Limit (MDEL) 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 DNQ or 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 that 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.

ATTACHMENT A – DEFINITIONS

Arithmetic mean = $\mu = \Sigma x / n$ **where**: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (*CV*) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in this Order), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge

concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters include, but are not limited to, the Sacramento-San Joaquin Delta as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where WQC can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Ocean Waters are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. 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.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\Sigma[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

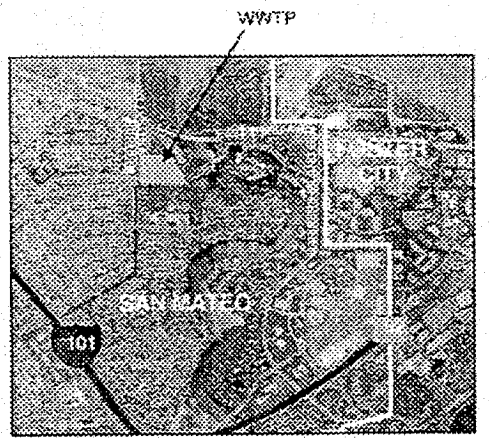
Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

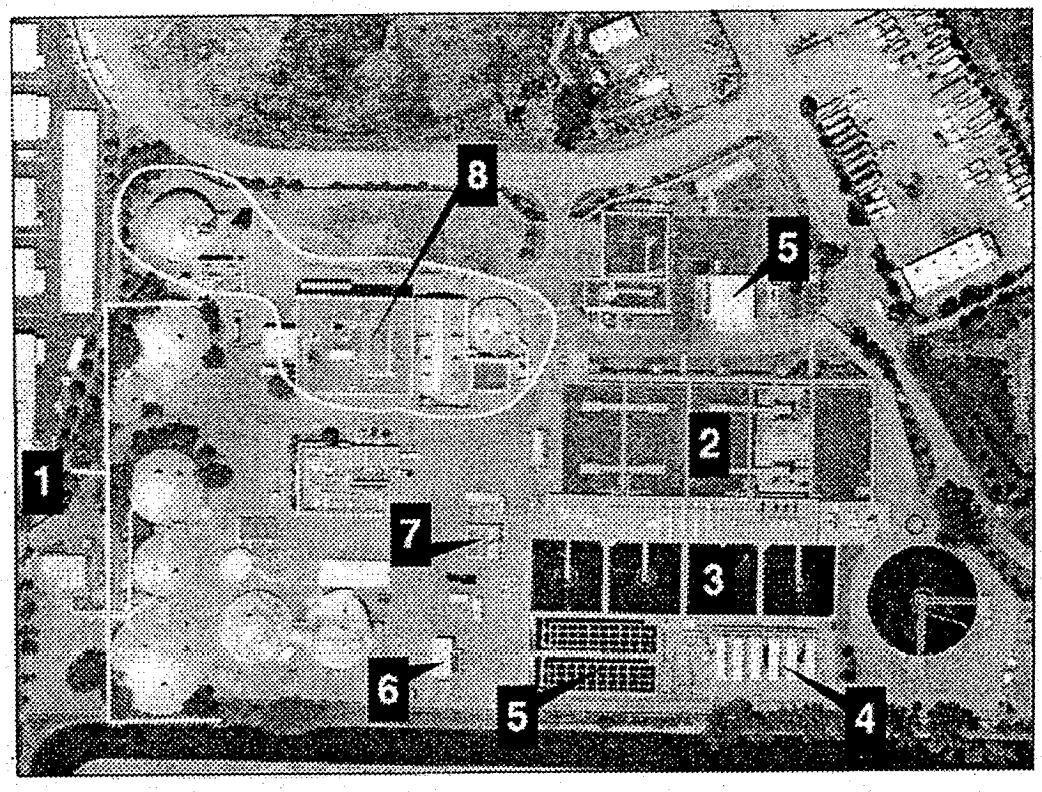
ATTACHMENT B – FACILITY MAP

City of San Mateo
WASTEWATER TREATMENT PLANT

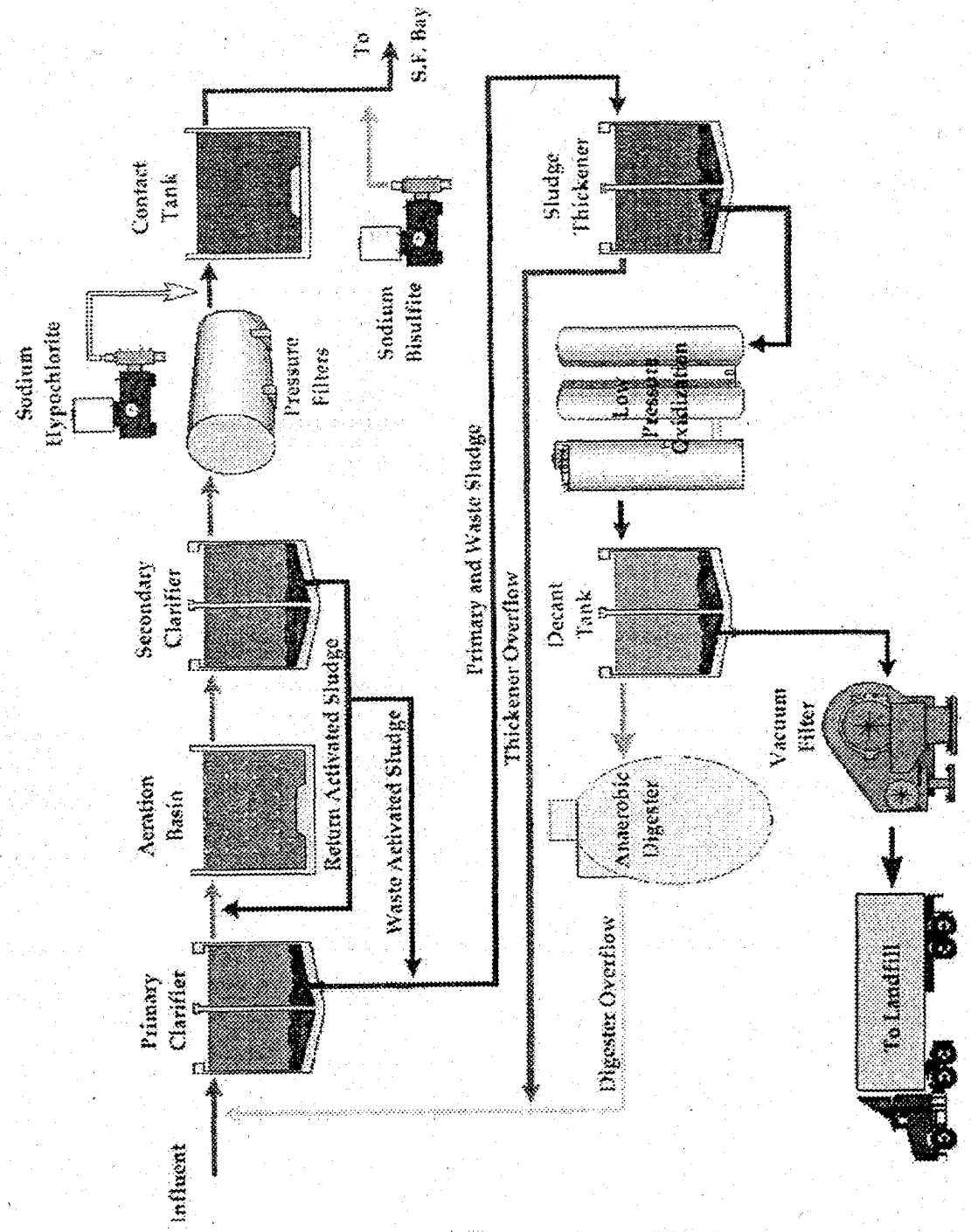
THE TREATMENT PROCESS

1. Primary Clarifiers
2. Aeration Basins
3. Secondary Clarifiers
4. Effluent Filters
5. Chlorine Contact - Effluent Disinfection
6. Effluent Dechlorination
7. Clean discharge is pumped into Bay
8. Biosolids processing and disposal





ATTACHMENT C – PROCESS FLOW DIAGRAM



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR § 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40CFR§ 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order (40CFR§ 122.41(e)).

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (U.S. EPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR § 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR § 122.41(i)(4).)

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment

should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).).

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions– Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions–Permit Compliance I.C above. (40 CFR § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 CFR § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent

responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 CFR § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. 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).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR § 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application

process or not reported pursuant to an approved land application plan. (40 CFR§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions–Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision–Reporting V.E above. (40 CFR § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 CFR § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order. (40 CFR § 122.42(b)(2).)

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Table of Contents

Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

National Pollutant Discharge Elimination System (NPDES) regulations at 40 CFR 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. The Discharger shall comply with the MRP for this Order as adopted by the Regional Water Board, and with all of the Self-Monitoring Program, Part A, adopted August 1993 (SMP). The MRP and SMP may be amended by the Executive Officer pursuant to US Environmental Protection Agency (U.S. EPA) regulations 40 CFR122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and SMP, the MRP prevails.

B. Sampling is required during the entire year when discharging. All analyses shall be conducted using current U.S. EPA methods, or methods that have been approved by the U.S. EPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5, or equivalent methods that are commercially and reasonably available, and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits and to perform reasonable potential analysis. Equivalent methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer, following consultation with the State Water Quality Control Board's Quality Assurance Program.

C. Sampling and analysis of additional constituents is required pursuant to Table 1 of the Regional Water Board's August 6, 2001 Letter entitled, *Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy* (Attachment G).

D. *Minimum Levels.* For compliance and reasonable potential monitoring, analyses shall be conducted using the commercially available and reasonably achievable detection levels that are lower than the effluent limitations. The objective is to provide quantification of constituents sufficient to allow evaluation of observed concentrations with respect to the Minimum Levels (MLs) given below.

MLs are the concentrations at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed. All MLs are expressed as micrograms per liter (µg/L).

Table E-1 lists the test methods the Discharger may use for compliance and reasonable potential monitoring for the pollutants with effluent limits.

Table E-1. Test Methods and Minimum Levels for Pollutants with Reasonable Potential

CTR #	Constituent	Types of Analytical Methods [a] Minimum Levels (µg/L)											
		GC	GCMS	LC	Color	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAF	DCP
6	Copper					25	5	10	0.5	2			
8	Mercury [b]											0.0005	

CTR #	Constituent	Types of Analytical Methods [a] Minimum Levels (µg/L)											
		GC	GCMS	LC	Color	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAF	DCP
9	Nickel					50	5	20	1	5			
14	Cyanide				5								
16-TEQ	Dioxin-TEQ [c]												

[a] Analytical Methods / Laboratory techniques are defined as follows:
Color = Colorimetric
CVAF = Cold Vapor Atomic Fluorescence
DCP = Direct Current Plasma
FAA = Furnace Atomic Absorption
GC = Gas Chromatography
GCMS = Gas Chromatography Mass Spectroscopy
GFAA = Graphite Furnace Atomic Absorption
ICP = Inductively Coupled Plasma
ICPMS = Inductively Coupled Plasma/Mass Spectrometry
LC = Liquid Chromatography
SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e. EPA 200.9)

[b] Mercury: The Discharger may, at its option, sample effluent mercury either as grab or as 24-hour composite samples. Use ultra-clean sampling (U.S. EPA 1669) to the maximum extent practicable and ultra-clean analytical methods (U.S. EPA 1631) for mercury monitoring. The Discharger may only use alternative methods if the method has an ML of 0.5 nanograms per liter (ng/L) or less, and approval is obtained from the Executive Officer prior to conducting the monitoring.

[c] Minimum Levels for dioxin congeners are shown in the permit, Table 7.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order.

Table E-2. Monitoring Station Locations

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Influent Station	INF-001	At any point in the treatment facility's headworks preceding any phase of treatment and preceding introduction of recycle streams.
Plant Effluent Station	EFF-001	At any point after full treatment and before contact with receiving water of the lower San Francisco Bay.
Plant Effluent Station	EFF-001-D	At any point in the disinfection facilities where adequate contact with the disinfectant is assured.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF-001 as follows.

Table E-3. Influent Monitoring

Parameter	Units	Minimum Sampling Frequency	Required Analytical Test Method
		C-24 (2)	
Flow rate (1)	mgd	Cont/D	Meter
$CBOD_5$	mg/L	3/W	(3)

Parameter	Units	Minimum Sampling Frequency	Required Analytical Test Method
		C-24 (2)	
TSS	mg/L	3/W	(3)

(1) Flows shall be monitored continuously and the following shall be reported in monthly self-monitoring reports:
a. Daily instantaneous minimum flow rate (MGD)
b. Daily instantaneous maximum flow rate (MGD)
c. Average daily flow rate (MGD) based on the total flow for each day.
d. Average flow rate for the month (MGD) based on an average of daily flows.

(2) 24-hour composite samples of influent shall be collected on varying days selected at random and shall not include any plant recirculation or other side stream waste. Deviation from this requirement must be approved by the Executive Officer.

(3) Pollutants shall be analyzed using the analytical methods described in 40 CFR 136.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location – EFF-001

1. The Discharger shall monitor treated effluent from the facility at EFF-001 as follows:

Table E-4. Effluent Monitoring

Parameter	Units	Minimum Sampling Frequency			Required Analytical Test Method
		Continuous	C-24	G	
Flow Rate (2)	Mgd	Cont/D			(1)
Oil and Grease (3)	mg/L			2/Y	(1)
pH (4)	s.u.			D	(1)
$CBOD_5$ (5)	mg/L		3/W		(1)
TSS (5)	mg/L		D		(1)
Acute Toxicity (6)	% survival		M		(1)
Chlorine, Total Residual (7)	mg/L	Cont or 1/2h			(1)
Chronic Toxicity (8)	TUc		2/Y		(1)
DO	mg/L			D	(1)
Enterococci Bacteria (13)	MPN/100ml			W	(1)
Fecal Coliform Bacteria (9)	MPN/100ml			W	(1)
Temperature	°C			D	(1)
Ammonia (14)	mg/L			M	(1)
Copper	µg/L		M		(1)
Cyanide (14)	µg/L			M	(1)
Dioxin-TEQ	µg/L			2/Y	(1)
Nickel	µg/L		M		(1)
Mercury	µg/L, kg/mo			M	(1) (10)
Remaining Priority Pollutants	µg/L		1/Y (11) (12)		(1)

(1) Pollutants and pollutant parameters shall be analyzed using the analytical methods described in 40 CFR 136. For priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the State Implementation Policy (SIP). Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Resources Control Board (State Water Board).

(2) Flows shall be monitored continuously and the following shall be reported in monthly self-monitoring reports:
a. Average daily flow rate (MGD) based on the total flow for each day.
b. Average flow rate for the month (MGD) based on an average of daily flows.

(3) Each oil and grease sampling event shall consist of 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. 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 and analysis.

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

(5) The percent removal for $CBOD_5$ and TSS shall be reported for each calendar month. Samples for $CBOD_5$ and TSS shall be collected simultaneously with influent samples.

(6) Acute bioassay tests shall be performed in accordance with Section V.A of this MRP.

(7) Chlorine residual: During all times when chlorination is used for disinfection of the effluent, effluent chlorine residual concentrations shall be monitored continuously, or by grab samples taken once every 2 hours. Chlorine residual concentrations shall be monitored and reported for sampling points both prior to and following dechlorination. Total chlorine dosage (kilograms per day [kg/day]) shall be recorded on a daily basis.

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

(9) Samples for this parameter may be collected at Monitoring Location EFF-001-D.

(10) Mercury: The Discharger may, at its option, sample effluent mercury either as grab or 24-hour composite samples. Ultra clean sampling (U.S. EPA 1669) and ultra clean analytical methods (U.S. EPA 1631) shall be used to the maximum extent practicable. The Discharger may use an alternative method, if the method has an ML of 5.0 ng/L or less, and approval is obtained from the Executive Officer prior to the monitoring event.

(11) Sampling methods for all priority pollutants in the SIP are addressed in a letter dated August 6, 2001, from the Regional Water Board Staff: "Requirements for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy" (not attached but available for review or download on the Regional Water Board's website at http://www.waterboards.ca.gov/sanfranciscobay/).

(12) For the same pollutants the sampling frequencies shall be the higher ones under this table or under the pretreatment program sampling required in section VII.A of the MRP (Table E-5). Pretreatment program monitoring can be used to satisfy part of these sampling requirements.

(13) The Discharger shall monitor for Enterococci using EPA-approved methods, including the IDEXX Enterolert method.

(14) Ammonia and cyanide grab samples collected over a 24-hour period may be composited and analyzed to comply with this requirement if the appropriate sample collection and preservation practices called for in 40 CFR 136 are followed.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The Discharger shall monitor acute and chronic toxicity at EFF-001 as follows.

A. Whole Effluent Acute Toxicity

1. Compliance with the acute toxicity effluent limitations of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour continuous flow-through bioassays.

2. Test organisms shall be rainbow trout unless specified otherwise in writing by the Executive Officer.

3. All bioassays shall be performed according to the most up-to-date protocols in 40 CFR 136, currently in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms," 5th Edition.

4. If specific identifiable substances in the discharge can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the receiving water, compliance with the acute toxicity limit may be determined after the test samples are adjusted to remove the influence of those substances. Written approval from the Executive Officer must be obtained to authorize such an adjustment. Written approval to adjust the pH of whole effluent acute toxicity samples prior to performing bioassays was requested by and granted to the Discharger during the term of Order No. 01-071.