

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION IX**

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

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**TENTATIVE ORDER No. R2-2015-XXXX**  
**NPDES No. CA0037681**

**WASTE DISCHARGE REQUIREMENTS AND  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT  
FOR CITY AND COUNTY OF SAN FRANCISCO  
OCEANSIDE WATER POLLUTION CONTROL PLANT,  
WESTSIDE WET WEATHER FACILITIES, AND WASTEWATER COLLECTION SYSTEM**

The following Discharger is subject to waste discharge requirements (WDRs) and federal NPDES permit requirements as set forth in this Order.

**Table 1. Discharger Information**

<b>Discharger</b>	City and County of San Francisco
<b>Facility Name</b>	Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities, and Wastewater Collection System
<b>Facility Address</b>	3500 Great Highway San Francisco, CA 94132 San Francisco County
<b>CIWQS Place Number</b>	256498

**Table 2. Discharge Locations**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Discharge Point Latitude (North)</b>	<b>Discharge Point Longitude (West)</b>	<b>Receiving Water</b>
001	Secondary-treated effluent (dry weather); Commingled primary-treated and secondary-treated effluent (wet weather); Equivalent-to-primary treated decant flow from the Westside Wet Weather Facilities <u>transport/storage structure (wet weather); concentrate from a reverse osmosis recycled water treatment facility planned to be operational in 2018 or 2019.</u>	37.705000	-122.577500	Pacific Ocean, Offshore
CSD-001	Equivalent-to-primary-treated effluent (wet weather)	37.715278	-122.504444	Pacific Ocean (Fort Funston, Ocean Beach)
CSD-002	Equivalent-to-primary-treated effluent (wet weather)	37.737778	-122.508056	Pacific Ocean (Vicente St., Ocean Beach)

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
CSD-003	Equivalent-to-primary-treated effluent (wet weather)	37.763889	-122.511667	Pacific Ocean (Lincoln Way, Ocean Beach)
CSD-004	Equivalent-to-primary-treated effluent (wet weather)	37.784722	-122.510278	Pacific Ocean (Mile Rock)
CSD-005	Equivalent-to-primary-treated effluent (wet weather)	37.787778	-122.491667	Pacific Ocean (China Beach)
CSD-006	Equivalent-to-primary-treated effluent (wet weather)	37.789444	-122.487778	Pacific Ocean (Baker Beach)
CSD-007	Equivalent-to-primary-treated effluent (wet weather)	37.789444	-122.486944	Pacific Ocean (Baker Beach)

**Table 3. Administrative Information**

The U.S. Environmental Protection Agency, Region IX, issued this Order on:	<Date Signed>
The San Francisco Bay Regional Water Quality Control Board adopted this Order on:	<Adoption Date>
This Order shall become effective on:	June 1, 2015
This Order shall expire on:	May 31, 2020
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with California Code of Regulations, title 23, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	September 1, 2019
This discharge is classified as follows:	Major

The signatures below certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on the date indicated above, and an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on the date above.

\_\_\_\_\_  
 Bruce H. Wolfe, Executive Officer

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 Jane Diamond, Water Division Director

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## I. FACILITY INFORMATION

Information describing the Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities, and Wastewater Collection System (collectively, the Facility) is summarized in Table 1 and in Fact Sheet (Attachment F) sections I and II.

## II. FINDINGS

The U.S. Environmental Protection Agency (U.S. EPA) and California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), find:

- A. Legal Authorities.** This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA, and Water Code chapter 5.5, division 7 (commencing with § 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. Because this Order concerns discharges to waters of the United States both within and beyond State territorial waters, U.S. EPA and the Regional Water Board are jointly issuing it.
- B. Background and Rationale for Requirements.** The requirements in this Order are based on information the Discharger submitted as part of its application, information obtained through monitoring and reporting programs, and other available information. The Fact Sheet contains background information and rationale for the requirements in this Order, and is hereby incorporated into and constitutes findings for this Order. Attachments A through E, and G through H, are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** No provisions or requirements in this Order are included to implement State law only.
- D. Federal Permit Reissuance Contingency.** This federal permit reissuance is contingent upon U.S. Fish and Wildlife Service and NOAA National Marine Fisheries Service determination that the proposed discharge is consistent with the federal Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.). U.S. EPA has determined that issuance of this Order ~~may affect, but~~ is not likely to adversely affect species listed under the federal Endangered Species Act and is requesting the Services' concurrence with this determination. The California Coastal Commission has indicated that it is unnecessary to obtain consistency certification pursuant to the Coastal Zone Management Act (16 U.S.C. § 1451 et seq.) for the issuance of a federal NPDES permit containing secondary treatment standards.
- E. Notification of Interested Parties.** U.S. EPA and the Regional Water Board notified the Discharger and interested agencies and persons of their intent to jointly issue WDRs and a federal NPDES permit for discharge and provided an opportunity to submit written comments and recommendations. The Fact Sheet provides details regarding the notification.
- F. 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. U.S. EPA considered all comments pertaining to the discharge.

**Commented [A1]:**  
Bill Johnson noted in a January 5, 2015 email to Amy Chastain that this is a typo and that there will be no Attachment I.

**Commented [A2]:** Since the loading is not increasing, why does this permit require a formal determination by the U.S. Fish and Wildlife Service and NOAA National Marine Fisheries Service? The existing permit states: "USEPA has initiated informal consultation with National Oceanic Atmospheric Administration (NOAA)."

**THEREFORE, IT IS HEREBY ORDERED**, that Order No. R2-2009-0062 (previous order), as amended by Order Nos. R2-2010-0054 and R2-2011-0009, is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions of Water Code division 7 (commencing with § 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. The Regional Water Board intends that joint issuance of this Order with U.S. EPA will serve as its certification under CWA section 401 that discharge pursuant to this Order complies with 33 U.S.C. sections 1311, 1312, 1313, 1316, and 1317. This action in no way prevents U.S. EPA or the Regional Water Board from taking enforcement action for past violations of the previous order.

### III. DISCHARGE PROHIBITIONS

- A. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.
- B. Discharge from Discharge Point No. 001 without a nominal (as modeled) minimum initial dilution of ~~372:1~~ 1 (parts seawater per part wastewater) is prohibited. Compliance shall be achieved by proper operation and maintenance of the discharge outfall to ensure that it (or its replacement, in whole or part) is in good working order and is consistent with or can achieve better mixing than that described in Fact Sheet section IV.C.13-a. The Discharger shall describe measures taken to ensure this in its application for permit reissuance.
- C. Bypass of untreated or partially-treated wastewater to waters of the United States is prohibited, except in accordance with the *Combined Sewer Overflow Control Policy* during wet weather (as defined in Attachment A) and as provided for in Attachment D section I.G.
- D. Discharge from any location other than Discharge Point No. 001 is prohibited, except during wet weather (as defined in Attachment A). Discharge from Discharge Point Nos. CSD-001 through CSD-007 is only authorized during wet weather when ~~the 175 million gallon per day (MGD) pumping capacity to Discharge Point No. 001 has been exceeded~~ the criteria specified in section VI.C.5.c.i are met.
- E. Average dry weather effluent flow in excess of 43 MGD is prohibited at Discharge Point No. 001. Average dry weather effluent flow shall be determined from three consecutive dry weather months each year, with compliance measured at Monitoring Location EFF-001A as described in the Monitoring and Reporting Program (MRP).
- F. Any sanitary or combined sewer discharge or overflow of untreated or partially-treated wastewater to waters of the United States not expressly authorized by this Order is prohibited.

### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

During dry weather, the Discharger shall comply with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001A as described in the MRP:

**Commented [A3]:** Please see December email from Amy Chastain regarding the dilution factor.

This language is very similar to language in the SEP permit and many other Region 2 permits.

Note, however, that Orange County Sanitation District's permit (R8-2012-0035) does not have a discharge prohibition that mentions the dilution factor. They do have this language:

"Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment." (page 18)

**Commented [A4]:** Fact Sheet section IV.C.3.a does not seem to exist. A reference to Fact Sheet section IV.C.1 may be appropriate.

**Commented [A5]:** The Operational Plan (section VI.C.5.c.i) contains more nuanced requirements to maximize storage and treatment than the pumping capacity of the Westside Pump Station. Additionally, the Pump Station cannot achieve 175 MGD during certain high tide events.

**Table 4. EFF-001A Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Instantaneous Minimum	Instantaneous Maximum	Single-Sample Maximum
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C (CBOD <sub>5</sub> )	mg/L	25	40	—	—	—
Total Suspended Solids (TSS)	mg/L	30	45	—	—	—
CBOD <sub>5</sub> Removal	%	85 <sup>[12]</sup> (minimum)	--	—	—	—
TSS Removal	%	85 <sup>[12]</sup> (minimum)	--	—	—	—
pH <sup>[11]</sup>	s.u.	--	--	6.0	9.0	—
Oil and Grease	mg/L	25	40	--	75	--
Settleable Solids	mL/L	1.0	1.5	—	3.0	—
Turbidity	NTU	75	100	—	225	—
Chronic Toxicity <sup>[21]</sup>	pass or fail	--	--	--	--	pass (not-fail)

**Commented [A6]:** SFPUC requests that the effluent limitations be split into three tables, one for the secondary effluent, one for the recycled water concentrate, and one for the comingled secondary effluent and concentrate.

In the modifications provided CBOD and TSS limitations are applied only to secondary treated POTW effluent per federal regulations; oil & grease, settleable solids, and turbidity are applied to the RO concentrate per the Ocean Plan. Chronic toxicity is applied to the comingled POTW effluent and RO concentrate.

**Commented [A7]:** SFPUC requests the removal of pH effluent limitations. A pH effluent limitation is not required as there is no chemical addition at the Oceanside Plant. Additionally, there are very few SIUs (just three hospitals).

**Unit Abbreviations:**

- mg/L = milligrams per liter
- mL/L = milliliters per liter
- NTU = nephelometric turbidity units
- s.u. = standard units
- % = percent

**Footnotes:**

- <sup>[11]</sup> If the Discharger monitors pH continuously, pursuant to 40 C.F.R. § 401.17 the Discharger shall be in compliance with this pH limitation provided that both of the following conditions are satisfied: (i) the total time during which the pH is outside the required range shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the required pH range shall exceed 60 minutes.
- <sup>[21]</sup> Compliance with chronic toxicity shall be evaluated using the Test of Significant Toxicity (TST) statistical approach at the discharge in-stream waste concentration (IWC), as described in MRP section V. The discharge shall be subject to determination of “pass” or “fail” (and shall indicate “percent effect”) from toxicity tests at the discharge IWC using the TST statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be “mean discharge IWC response ≤ 0.75 × mean control response.” A test that rejects this null hypothesis shall be reported as “pass.” A test that does not reject this null hypothesis shall be reported as “fail.”
- <sup>[12]</sup> The arithmetic mean of CBOD<sub>5</sub> and TSS, by concentration, shall not exceed 15 percent of the arithmetic mean of the CBOD<sub>5</sub> and TSS, by concentration, for influent samples collected at Monitoring Location INF 001 as described in the MRP at approximately the same times during the same period.

As described in Fact Sheet section II.A.5, the Discharger plans to construct a recycled water facility within the Oceanside Plant during the term of this permit. The “reject stream” or concentrate from the recycled water facility would be discharged to the Pacific Ocean through Discharge Point No. 001. When recycled water is being produced, the concentrate as measured at Monitoring Location EFF-RWC (see MRP) shall comply with the following effluent limitations:

**Table 5. EFF-RWC Effluent Limitations**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225

Unit Abbreviations:

mg/L = milligrams per liter  
 mL/L = milliliters per liter  
 NTU = nephelometric turbidity units

The comingled secondary treatment plant effluent and recycled water concentrate as measured at Monitoring Location EFF-001C (see MRP) shall comply with the following effluent limitations:

**Table 6. EFF-001C Effluent Limitations**

Parameter	Units	Effluent Limitations
		Single-Sample Maximum
Chronic Toxicity <sup>(1)</sup>	pass or fail	pass (not fail)

Footnotes:

<sup>(1)</sup> Compliance with chronic toxicity shall be evaluated using the Test of Significant Toxicity (TST) statistical approach at the discharge in-stream waste concentration (IWC), as described in MRP section V. The discharge shall be subject to determination of "pass" or "fail" (and shall indicate "percent effect") from toxicity tests at the discharge IWC using the TST statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be "mean discharge IWC response  $\leq$  0.75  $\times$  mean control response." A test that rejects this null hypothesis shall be reported as "pass." A test that does not reject this null hypothesis shall be reported as "fail."

**V. RECEIVING WATER LIMITATIONS**

- A. The dry weather discharge from Discharge Point No. 001 shall not cause the following conditions to exist in receiving waters at any place outside the near-field mixing zone (i.e., where mixing is not controlled by effluent discharge momentum and buoyancy): As indicated in the Fact Sheet (Attachment F, Section IV.B.1.c), disinfection to meet bacteria level objectives is not required. Attachment F Section II.C.2.a describes an Ocean Plan exception for combined sewer overflows discharges.
1. Floating particulates and grease and oil shall not be visible.
  2. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
  3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.

**Commented [A8]:** See comment no. 6. This table applies the Ocean Plan standards to the RO concentrate.

**Commented [A9]:** See comment no. 6. The chronic toxicity limitation applies to the comingled secondary effluent and concentrate. See also changes to MRP.

**Commented [A10]:** SFPUC requests the changes shown for clarity.  
  
Changes shown here mirror language in the existing Oceanside permit (R2-2009-0062).

4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
  5. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen demanding waste materials.
  6. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
  7. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
  8. The concentration of substances set forth in Ocean Plan Table 1 in marine sediments shall not be increased to levels that would degrade indigenous biota.
  9. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.
  10. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.
  11. Marine communities, including vertebrate, invertebrate and plant species, shall not be degraded.
  12. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
  13. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.
- B. The dry weather discharge from Discharge Point No. 001 shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or State Water Board as required by the CWA and regulations adopted thereunder (including the Combined Sewer Overflow [CSO] Control Policy) outside near-field mixing zones (i.e., where mixing is not controlled by effluent discharge momentum and buoyancy).

## VI. PROVISIONS

### A. Standard Provisions

1. The Discharger shall comply with all "Standard Provisions" included in Attachment D.
2. The Discharger shall comply with all applicable provisions of the "Regional Standard Provisions, and Monitoring and Reporting Requirements for NPDES Wastewater Discharge Permits" (Attachment G).
3. In accordance with CWA section 512, this Order's provisions are severable, and if any provision, or the application of any provision to any circumstance, is held invalid, the

**Commented [A11]:**  
SFPUC requests these changes for clarity.

The Fact Sheet contains language regarding the CSDs, water quality standards, and the CSO Policy.



application of such provision to other circumstances and the remainder of this Order shall not be affected.

## B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP (Attachment E), and future revisions thereto, and applicable sampling and reporting requirements in Attachments D and 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 discharges governed by this Order have or will have a reasonable potential to cause or contribute to, or will cease to have, adverse impacts on water quality or beneficial uses of the receiving waters.
- b. As new or revised water quality objectives (WQOs) or Total Maximum Daily Loads (TMDLs) come into effect for surface waters of the State (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order may be modified as necessary to reflect updated WQOs and wasteload 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, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified.
- d. If State Water Board precedential decisions, new policies, new laws, or new regulations are adopted.
- e. If an administrative or judicial decision on a separate NPDES permit or waste discharge requirements addresses requirements similar to this discharge.

~~f. If the Discharger requests adjustments in effluent limits due to the implementation of stormwater diversion pursuant to the Municipal Regional Stormwater Permit (Permit No. CAS612008) for redirecting dry weather and first flush discharges from the storm drain system to the sanitary sewer systems as a stormwater control strategy.~~

~~g.f.~~ The Regional Water Board may reopen this Order to consider making conforming changes in the event the U.S. EPA issues a version of federal NPDES Permit No. CA0037681 that contains revisions based on its consideration of comments which are timely submitted.

~~h.g.~~ Or as otherwise authorized by law.

Formatted: Indent: Left: 1", No bullets or numbering

**Commented [A12]:**  
SFPUC requests that this provision be deleted as San Francisco is not part the of Municipal Regional Stormwater Permit and first flush diversion is not applicable in a combined sewer system.

**Commented [A13]:**  
Only one permit is being issued jointly by the two agencies; this provision is confusing and implies a second SWOO permit may be issued.

The Discharger may request a permit modification based on any of the circumstances above. With any such request, the Discharger shall include antidegradation and anti-backsliding analyses.

## 2. Effluent Characterization Study and Report

- a. Study Elements.** The Discharger shall continue to characterize and evaluate the dry weather discharge from the following discharge point to verify that the “no” or “unknown” reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall collect representative samples at the monitoring station set forth below, as defined in the MRP, at no less than the frequency specified below:

<u>Discharge Point</u>	<u>Monitoring Location</u>	<u>Minimum Frequency</u>
001	EFF-001CA	Once per calendar year

The samples shall be analyzed for the pollutants listed in Ocean Plan Table 1, ~~excepting those pollutants excluded by the footnotes to Table E-3 in the MRP. Additionally, the except for those pollutants with effluent limitations for which the MRP already requires more frequent monitoring; more frequently than once per calendar year for some pollutants (see Table E-3). monitoring.~~ Compliance with this requirement shall be achieved in accordance with the specifications of Attachment G sections III.A.1 and III.A.2.

The Discharger shall evaluate on an annual basis if concentrations of any of these pollutants significantly increase over past performance. The Discharger shall investigate the cause of any such increase. The investigation may include, but need not be limited to, an increase in monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. The Discharger shall establish remedial measures addressing any increase resulting in reasonable potential to cause or contribute to an excursion above applicable water quality objectives. This requirement may be satisfied through identification of the constituent as a “pollutant of concern” in the Discharger’s Pollutant Minimization Program, described in Provision VI.C.3.

### b. Reporting Requirements

- i. Routine Reporting.** The Discharger shall, within 45 days of receipt of analytical results, report the following in the transmittal letter for the appropriate self-monitoring report:
- (a) Indication that a sample for this characterization study was collected; and
  - (b) Identity of priority pollutants detected at or above applicable water quality objectives (see Fact Sheet Table F-10 for the objectives), and the detected concentrations of those pollutants.
- ii. Annual Reporting.** The Discharger shall summarize the annual data evaluation and source investigation in the annual self-monitoring report.

**Commented [A14]:** Please see changes to dry weather effluent monitoring table in MRP

**Commented [A15]:** See changes to footnotes in Table E-3. The SFPUC requests that some Table 1 parameters (such as radioactivity and tributyltin) be excluded.

**iii. Final Report.** The Discharger shall submit a final report that presents all these data with the application for permit reissuance.

### 3. Pollutant Minimization Program

- a. The Discharger shall continue to improve its existing Pollutant Minimization Program as necessary to promote minimization of pollutant loadings to the treatment plant and therefore to the receiving waters.
- b. The Discharger shall submit an annual report no later than February 28 each year. Each annual report shall include at least the following information:
  - i. **Brief description of treatment plant.** The description shall include the service area and treatment plant processes.
  - ii. **Discussion of current pollutants of concern.** Periodically, the Discharger shall analyze its circumstances to determine which pollutants are currently a problem and which pollutants may be potential future problems. This discussion shall include the reasons for choosing the pollutants.
  - iii. **Identification of sources for pollutants of concern.** This discussion shall include how the Discharger intends to estimate and identify pollutant sources. The Discharger shall include 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.
  - iv. **Identification of tasks to reduce the sources of pollutants of concern.** This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. The Discharger may implement the tasks by itself or participate in group, regional, or national tasks that address its pollutants of concern. The Discharger is strongly encouraged to participate in group, regional, or national tasks that address its pollutants of concern whenever it is efficient and appropriate to do so. An implementation timeline shall be included for each task.
  - v. **Outreach to employees.** The Discharger shall inform employees about the pollutants of concern, potential sources, and how they might be able to help reduce the discharge of these pollutants of concern into the Facility. The Discharger may provide a forum for employees to provide input.
  - vi. **Continuation of Public Outreach Program.** The Discharger shall prepare a pollution prevention public outreach program for 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 newspaper articles or advertisements, radio or television stories or spots, newsletters, utility bill inserts, or web sites. Information shall be specific to target audiences. The Discharger shall coordinate with other agencies as appropriate.

**Commented [A16]:**

This service area has very few industrial discharges and already has a comprehensive program. A minimal language change here is suggested here accordingly.

- vii. Discussion of criteria used to measure Pollutant Minimization Program and task effectiveness.** The Discharger shall establish criteria to evaluate the effectiveness of its Pollutant Minimization Program. This discussion shall identify the specific criteria used to measure the effectiveness of each task in Provisions VI.C.3.b.iii, iv, v, and vi.
- viii. Documentation of efforts and progress.** This discussion shall detail all of the Discharger's Pollutant Minimization Program activities during the reporting year.
- ix. Evaluation of Pollutant Minimization Program and task effectiveness.** This Discharger shall use the criteria established in Provision VI.C.3.b.vii to evaluate the program and task effectiveness.
- x. Identification of specific tasks and timelines for future efforts.** Based on the evaluation, the Discharger shall explain how it intends to continue or change its tasks to more effectively reduce the amount of pollutants flowing to the Facility, and subsequently in its effluent.
- c.** The Discharger shall develop and conduct a Pollutant Minimization Program as described below when there is evidence that a pollutant is present in the effluent above an effluent limitation and either:

  - i.** The concentration of the pollutant is reported as Detected but Not Quantified (DNQ) and the effluent limitation is less than the Reporting Level (RL); or
  - ii.** The concentration of the pollutant is reported as Not Detected (ND) and the effluent limitation is less than the Method Detection Limit (MDL).
- d.** If triggered by the reasons set forth in Provision VI.C.3.c, the Discharger's Pollutant Minimization Program shall include, but not be limited to, the following actions and submittals:

  - i.** Annual review and semiannual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling, or alternative measures when source monitoring is unlikely to produce useful analytical data;
  - ii.** Quarterly monitoring for the reportable pollutant in the influent to the Facility. The Executive Officer may approve alternative measures when influent monitoring is unlikely to produce useful analytical data;
  - iii.** Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the effluent limitation;
  - iv.** Implementation of appropriate cost-effective control measures for the reportable pollutant, consistent with the control strategy; and
  - v.** Inclusion of the following within the annual report required by Provision VI.C.3.b:

- (a) All Pollutant Minimization Program monitoring results for the previous year;
- (b) List of potential sources of the reportable pollutant;
- (c) Summary of all actions undertaken pursuant to the control strategy; and
- (d) Description of actions to be taken in the following year.

#### 4. Special Provisions for Municipal Facilities

- a. **Pretreatment Program.** The Discharger shall implement and enforce its approved pretreatment program in accordance with federal pretreatment regulations (40 C.F.R. part 403); pretreatment standards promulgated under CWA sections 307(b), 307(c), and 307(d); pretreatment requirements specified under 40 C.F.R. section 122.44(j); and the requirements in Attachment H, "Pretreatment Requirements." The Discharger's responsibilities include, but are not limited to, the following:
  - i. Enforcement of the National Pretreatment Standards of 40 C.F.R. sections 403.5 and 403.6;
  - ii. Implementation of its pretreatment program in accordance with legal authorities, policies, procedures, and financial provisions described in the National Pretreatment Program (40 C.F.R. part 403);
  - iii. Submission of reports to U.S. EPA, the State Water Board, and the Regional Water Board as described in Attachment H; and
  - iv. Evaluation of the need to revise local limits under 40 C.F.R. section 403.5(c)(1) and, by September 19, 2019 the effective date of this Order, submission of a report describing the changes, with a plan and schedule for implementation.
- b. **Sludge and Biosolids Management.** The following requirements are consistent with and supplement the requirements in the MRP and Attachment H, Appendix H-4.
  - i. **General Requirements**
    - (a) All biosolids generated by the Discharger shall be used or disposed of in compliance with applicable portions of the Clean Water Act and 40 C.F.R. parts 257, 258, and 503, and applicable State regulations.

The Discharger is responsible for ensuring that all biosolids produced at the Facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under these rules.

- (b) The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

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SFPUC requests that the evaluation be due on September 1, 2019, the same date that the Report of Waste Discharge will be due. This is consistent with the recently adopted permits for the Palo Alto Regional Water Quality Control Plant (Order No. R2-2014-0024) and the Sunnyvale Water Pollution Control Plant (Order No. R2-2014-0035).

- (c) No biosolids shall be allowed to enter wetlands or other waters of the United States.
- (d) Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.
- (e) Biosolids treatment, storage, use, or disposal shall not create a nuisance, such as objectionable odors or flies.
- (f) The Discharger shall ensure that haulers transporting biosolids offsite for treatment, storage, use, or disposal take all necessary measures to contain the biosolids. Trucks hauling biosolids that are not Class A biosolids, as defined at 40 C.F.R. section 503.32(a), shall be cleaned as necessary after loading and unloading so as to have no biosolids on the exterior of the truck or wheels. Trucks hauling biosolids that are not Class A biosolids shall be tarped. All haulers shall have spill clean-up procedures. Trucks hauling biosolids that are not Class A biosolids shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by U.S. EPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.
- (g) If biosolids are stored for over two years from the time they are generated, the Discharger shall ensure compliance with all requirements for surface disposal under 40 C.F.R. part 503, subpart C, or must submit a written notification to U.S. EPA with the information specified in 40 C.F.R. section 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether on the Facility site or offsite, adequate procedures shall be taken to restrict access by the public and domestic animals.
- (h) Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape the site. Adequate protection is defined as protection from at least a 100-year storm and the highest tidal stage that may occur.
- (i) There shall be adequate screening at the plant headworks or the biosolids treatment units, or both locations, to ensure that all metal, plastic, glass, and other inert objects with a diameter greater than 3/8 inches are removed.
- (j) Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 C.F.R. part 761.
- (k) The Discharger shall comply, if applicable, with WDRs issued by Regional Water Boards, or the State Water Board, to which jurisdiction the biosolids are transported and applied; and with other applicable State jurisdictions not limited to Arizona biosolids rules and regulations governing biosolids transport, treatment, and beneficial reuse.

- ii. Inspection and Entry.** The Discharger shall allow U.S. EPA, the Regional Water Board, the State Water Board, or an authorized representative thereof, upon the presentation of credentials, to do the following, directly or through contractual arrangements with biosolids management contractors:
- (a) Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.
  - (b) Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order or 40 C.F.R. part 503.
  - (c) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

- iii. Monitoring.** Biosolids shall be monitored for the following constituents: listed in Table E-9 of the Monitoring and Reporting Program at the frequency stipulated in Table 1 of 40 C.F.R. section 503.16: ~~arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids~~. If biosolids are removed for use or disposal on a routine basis, sampling shall be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

Monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) or as otherwise required under 40 C.F.R. section 503.8(b). All results shall be reported on a 100 percent dry weight basis and records of all analyses shall state on each page of the analytical results whether the reported results are expressed on an “as-is” or a “100 percent dry weight” basis.

**iv. Pathogen and Vector Control**

- (a) Prior to land application, the Discharger shall demonstrate that biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 C.F.R. section 503.32.
- (b) If pathogen reduction is demonstrated using a “Process to Further Reduce Pathogens” or one of the “Processes to Significantly Reduce Pathogens,” the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform or pathogens, or both, samples must be collected at the frequency specified in Table 1 of 40 C.F.R. section 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples shall be collected during each

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SFPUC prefers that this section refer to the MRP to ensure that the constituent list is in one place in the permit, which will minimize confusion. In addition, the list here includes chromium, which is not required by 40 CFR 503. Listing the constituents separately here may result in a misinterpretation that 40 CFR 503 requires biosolids monitoring for chromium.



~~monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform—6 hours when cooled to <4°C (extended to 24 hours when cooled to <4°C for Class A composted and Class B aerobically digested, and Class B anaerobically digested sample types; Salmonella spp. bacteria—24 hours when cooled to 4°C (unless using Method 1682—6 hours when cooled to <10°C); enteric viruses—6 hours when cooled to <10°C (extended to 24 hours when cooled to <4°C, or 2 weeks when frozen); helminth ova—6 hours when cooled to <10°C (extended to one month when cooled to <4°C). The Discharger shall monitor for fecal coliform and pathogens using U.S. EPA-approved methods, such as the IDEXX Enterolert method and EPA Method 1681.~~

- (c) For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve the Vector Attraction Reduction requirements under 40 C.F.R. section 503.33(b).
- v. **Surface Disposal.** If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that placement of biosolids on the site will not contaminate an aquifer.
- vi. **Landfill Disposal.** Biosolids ~~placed~~ disposed of in a municipal landfill shall be tested by the Paint Filter Test (SW-846, Method 9095) as specified in Attachment G section III.B.2. at the frequency specified in Table 1 of 40 C.F.R. section 503.16, or more often if necessary to demonstrate that there are no free liquids.
- vii. **Notifications.** The Discharger, either directly or through contractual arrangements with its biosolids management contractors, shall comply with the following notification requirements:
- (a) **Notification of Non-compliance.** The Discharger shall notify U.S. EPA of any non-compliance (for the Discharger and use or disposal sites) within 24 hours, if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify U.S. EPA of the non-compliance in writing within five working days of becoming aware of the non-compliance. The Discharger shall require its biosolids management contractors to notify U.S. EPA of any non-compliance within these same timeframes.
- (b) **Interstate Notification.** If biosolids are shipped to another State or Tribal Land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Tribal Land, and the U.S. EPA Regional Office.
- (c) **Land Application Notification.** Prior to using any biosolids from the Facility (other than composted biosolids) at a new or previously unreported site, the Discharger shall notify U.S. EPA and the State. This notification shall include a description and topographic map of the proposed site, names and addresses of the

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SFPUC prefers that specific method-related requirements about sample holding times and preservation be left out of the permit and that the permit instead refer to methods. This prevents possible discrepancies between the content of this permit and the methods if the methods are revised in the future.

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Landfill disposal of biosolids should not be confused with use of biosolids to amend final cover material at landfills. (Biosolids Technology Fact Sheet, Use of Landfilling for Biosolids Management. EPA, 2003.) The paint filter test in Attachment G does not apply to alternative daily cover. SFPUC would like to clarify that this requirement is for disposal of biosolids in a municipal landfill, and it is not applicable to the biosolids from the Plant.

The biosolids from the Plant are not disposed of in landfills. During the winter months, biosolids are hauled to a landfill for storage for eventual beneficial use as interim cover, final cover, and as landfill building material. During dry months from about mid-April to the end of October, the biosolids are hauled to Sonoma or Solano County for agricultural land application.

In addition, 40 CFR 503.16 Table 1 provides frequencies of monitoring for land application. This reference is not appropriate for landfill disposal and thus, not appropriate for the paint filter test.



applier and site owner, and list of any State or local permits that must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates. Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 C.F.R. section 503.13, then the Discharger (or its contractor) must pre-notify U.S. EPA and determine the cumulative metals loading at that site to date as required by 40 C.F.R. section 503.12.

- (d) Surface Disposal Notification.** Prior to disposal at a new or previously unreported site, the Discharger shall notify U.S. EPA. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

**viii. Reporting.** The Discharger shall submit an annual biosolids report to the U.S. EPA Region 9 Biosolids Coordinator by February ~~1928~~ of each year for the period covering the previous calendar year. The report shall include the following:

- (a)** The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
- (b)** Results of all pollutant monitoring required under provision VI.C.4.b.iii, above. Results shall be reported on a 100 percent dry weight basis.
- (c)** Demonstrations of pathogen and vector attraction reduction methods, as required under 40 C.F.R. sections 503.17 and 503.27, and certifications.
- (d)** Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, deep well injection, or other use or disposal method not covered above, and tonnage delivered to each.
- (e)** The following information, unless the Discharger requires its biosolids management contractors to report this information directly to the U.S. EPA Region 9 Biosolids Coordinator:
- (1)** For land application sites:
- (i)** Locations of land application sites (with field names and numbers) used during the calendar year, size of each field applied to, applier, and site owner.
- (ii)** Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen.
- (iii)** Crops planted, dates of planting and harvesting.

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The annual biosolids report is due on February 19, not February 28, each year.

- (iv) For biosolids exceeding 40 C.F.R. section 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date.
  - (v) Certifications of management practices required by 40 C.F.R. section 503.14.
  - (vi) Certifications of site restrictions required by 40 C.F.R. section 503(b)(5).
- (2) For surface disposal sites:
- (i) Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed.
  - (ii) Results of any required groundwater monitoring.
  - (iii) Certifications of management practices required by 40 C.F.R. section 503.24.
- (3) For closed sites, the date of site closure and certifications of management practices for three years following site closure.
- (f) All reports shall be submitted to:
- Regional Biosolids Coordinator  
U.S. Environmental Protection Agency  
NPDES Permits Office (WTR-2/3)  
75 Hawthorne Street  
San Francisco, CA 94105-3901
- San Francisco Bay Regional Water Quality Control Board  
NPDES Wastewater Division  
1515 Clay Street, Suite 1400  
Oakland, California 94612
- c. **Collection System Management.** The Discharger shall properly operate and maintain its entire collection system (see Attachment D section I.D). The Discharger shall report any noncompliance (see Attachment D sections V.E.1 and V.E.2) and mitigate any discharge from its collection system that violates this Order (see Attachment D section I.C).
- i. **Separate Sanitary Sewer System.** The *General Waste Discharge Requirements for Wastewater Collection Agencies* (General Collection System WDRs), State Water Board Order 2006-0003 DWQ as amended by State Water Board Order WQ 2013-0058-EXEC, has requirements for operation and maintenance of separate sanitary sewer collection systems and for reporting and mitigating sanitary sewer overflows from the separate sanitary sewer portion of the Discharger's collection system. While the Discharger must comply with both the General Collection System WDRs and this Order, the General Collection System WDRs more clearly and specifically stipulate requirements for operation and maintenance and for reporting and mitigating sanitary

sewer overflows. Implementation of the General Collection System WDRs for proper operation and maintenance and mitigation of sanitary sewer overflows will satisfy the corresponding federal NPDES requirements specified in Attachment D (as supplemented by Attachment G). Following the notification and reporting requirements in the General Collection System WDRs will satisfy NPDES the corresponding reporting requirements specified in Attachment D (as supplemented by Attachment G) for sanitary sewer overflows from the separate sanitary sewer portion of the collection system.

~~ii. **Combined Sewer System.** For purposes of this Order, a combined sewer system “excursion” is a release or diversion of untreated or partially treated wastewater from the combined sewer system that exits the system temporarily and then re-enters it. Excursions are caused by blockages or flow conditions within the publicly owned portion of the combined sewer system and can occur in public rights of way or on private property. Excursions do not include releases from privately owned sewer laterals or authorized combined sewer discharges from Discharge Point Nos. CSD-001 through CSD-007.~~

**Commented [A22]:**  
SFPUC requests that the language regarding excursions be removed as excursions do not reach receiving waters and as such are outside the jurisdiction of this permit.

~~(a) **Excursion Database.** By September 1, 2015, the Discharger shall develop and maintain a database containing information about each excursion that occurs within the Oceanside Plant service area. The Discharger may limit these data to excursions occurring within the City and County of San Francisco. The Discharger may, at its option, include information concerning releases from private sewer laterals. The database shall contain the following information for each excursion:~~

- ~~(1) Location, including latitude and longitude, street address (if available), zip code, cross street, and asset number;~~
- ~~(2) Destination (if known), including whether the excursion was fully captured and returned to the combined sewer system and whether any portion of it entered a drainage channel or surface water;~~
- ~~(3) Estimated volume, in gallons, including volume that reached a surface water or drainage channel and volume recovered (all spills to drainage channels or surface waters are subject to MRP section IX.C, which modifies Attachment G section V.E.2);~~
- ~~(4) Date and time excursion was reported to the San Francisco Public Utilities Commission;~~
- ~~(5) Operator arrival date and time;~~
- ~~(6) End date and time of excursion, if known;~~
- ~~(7) Source (e.g., manhole, catch basin, vent trap);~~
- ~~(8) Cause (e.g., mainline blockage, roots, broken pipe);~~

- ~~(9) Corrective actions taken, including steps taken or planned to reduce, eliminate, and prevent reoccurrence;~~
- ~~(10) Parameters for which samples were analyzed and results (if applicable);~~
- ~~(11) Whether the County Health Officer was notified and health warnings were posted (if known);~~
- ~~(12) Whether a beach was affected and, if so, which one (if applicable);~~
- ~~(13) California Emergency Management Agency (CalEMA) control number, and date and time CalEMA was called (if applicable); and~~
- ~~(14) Date and time County Health Officer was notified (if applicable);~~

If the Discharger chooses to include information regarding releases from private sewer laterals, it should also record responsible party contact information, if known.

**(b) Routine Reporting.** The Discharger shall report any excursion greater than 1,000 gallons, regardless of whether it enters a drainage channel or surface water, to the Regional Water Board and the San Francisco Department of Public Health not later than two hours after becoming aware of the discharge. The Discharger shall make this report as soon as (1) it has knowledge of the excursion, (2) reporting is possible, and (3) a report can be provided without impeding cleanup or other emergency measures. The Discharger shall report excursions by calling the Regional Water Board spill hotline (currently 510-622-2369) and following standard procedures developed by the San Francisco Public Utilities Commission and the San Francisco Department of Public Health. (Spills to drainage channels or surface waters are subject to MRP section IX.C, which modifies Attachment G section V.E.2.)

**(c) Annual Report.** The Discharger shall submit a report no later than August 15 each year that compiles and summarizes information from the excursion database for the preceding 12 months ending June 30. Within the report, the Discharger shall review collection system performance, evaluate excursion trends in terms of time and location, summarize actions taken within the preceding year to minimize excursions, and identify specific tasks for the coming year to further minimize excursions.

**(d) Record Keeping.** The Discharger shall maintain documentation supporting the database records for at least three years following each excursion. The Executive Officer may extend this period if necessary. Documentation shall include, but need not be limited to, work orders and other maintenance records associated with responses and investigations. The Discharger shall make all excursion records available for review upon Regional Water Board staff request.

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If requirements regarding excursions are retained, SFPUC requests that the first of the Oceanside excursions annual reports be submitted in 2016 in order to allow for sufficient time to collect the data and prepare the report.

~~If the Discharger collects water quality samples for analysis, it shall maintain the following information:~~

- ~~• Date, exact place, and time of sampling or measurement;~~
- ~~• Individual who performed sampling or measurement;~~
- ~~• Date of analysis;~~
- ~~• Individual who performed analysis;~~
- ~~• Analytical technique or method used; and~~
- ~~• Analysis results.~~

## 5. Combined Sewer System Controls

The Discharger shall maximize flows to the plant and pollutant removal during wet weather in accordance with the Nine Minimum Controls and the Discharger's Long-Term Control Plan.

- a. **Combined Sewer Operations and Maintenance Plan.** The Discharger shall revise and update its *Combined Sewer Operations and Maintenance Plan* as necessary to ensure compliance with the Nine Minimum Controls and the Long-Term Control Plan requirements of the *Combined Sewer Overflow Control Policy*. The Discharger shall submit the updated plan by April 15, 2017, and following any subsequent revision.
- b. **Nine Minimum Controls.** The Discharger shall continue implementing the following controls:
  - i. **Conduct Proper Operations and Maintenance Programs.** The Discharger shall implement its *Combined Sewer Operations and Maintenance Plan*, which shall include the elements described below. The Discharger shall operate and maintain the system according to the plan and in accordance with Provision VI.C.5.c.ii of this Order. The Discharger shall maintain records to document plan implementation.
    - (a) **Designate Manager for Combined Sewer Discharges and Overflows.** The Discharger shall designate a person to be responsible for the wastewater collection system and serve as the contact person regarding the operation of the combined sewer system. The Discharger shall notify the Regional Water Board within 90 days of the designation of a new contact person.
    - (b) **Inspect and Maintain Combined Sewer System.** The Discharger shall properly operate and maintain the collection system and the combined sewer discharge outfalls to reduce the magnitude, frequency, and duration of combined sewer discharges. The Discharger shall perform the following:
      - Regularly clean sewers and catch basins, and repair or replace, as necessary, sewers and related equipment;
      - Disconnect any illegal connections;
      - Inspect and maintain discharge structures, regulators, pumping stations, and tide gates to ensure that they are in good working condition and adjusted to

minimize combined sewer discharges, prevent combined sewer overflows, and prevent tidal inflow;

- Inspect each combined sewer discharge outfall at least once per year. The inspection shall include, but not be limited to, entering the regulator structure, if accessible; determining the extent of any structural defect or debris and grit buildup; and removing any debris that may constrict flow, cause blockage, or result in a dry weather combined sewer overflow. For outfalls that are inaccessible, the Discharger may perform a visual check of the discharge pipe to determine whether combined sewer overflows have occurred or could potentially occur during dry weather; and
- Record all inspection results in a maintenance log.

(c) **Provide Trained Staff.** The Discharger shall provide adequate staff to carry out the operation, maintenance, repair, and testing required to ensure compliance with the terms and conditions of this Order. The Discharger shall provide appropriate training for each staff member.

(d) **Allocate Funds for Operation and Maintenance.** The Discharger shall allocate adequate funds for operation and maintenance activities.

**iii.ii. Maximize Use of Collection System for Storage.** The Discharger shall continue to maximize the use of the collection system (i.e., collection system piping, not only the storage/transport) for in-line storage to reduce the magnitude, frequency, and duration of combined sewer discharges.

**iv.iii. Review and Modify Pretreatment Program.** The Discharger shall continue to implement controls to minimize the impact of non-domestic discharges to its collection system. At three-year intervals, the Discharger shall re-evaluate whether additional modifications to its pretreatment program are feasible or practical. The Discharger shall maintain records to document this evaluation and implementation of controls.

**v.iv. Maximize Flow to Plant.** The Discharger shall operate the plant at maximum treatable flow during wet weather. The Discharger shall ensure that the *Combined Sewer Operation and Maintenance Plan* is implemented to maximize the volume of wastewater treated at the plant and discharged via the deep water outfall, consistent with the hydraulic capacities of the storage, transport, treatment, and disposal facilities. The Discharger shall report rainfall with the self-monitoring reports the MRP requires.

**vi.v. Prohibit Dry Weather Combined Sewer Overflows.** Dry weather combined sewer overflows from Discharge Point Nos. CSD-001 through CSD-007 are prohibited. The Discharger shall respond to dry weather combined sewer overflows in accordance with MRP section IX.C, which modifies Attachment G section V.E.2. During any dry weather combined sewer overflow, the Discharger shall inspect the

overflow point each day until the overflow stops. The Discharger shall document in the inspection log each combined sewer overflow event, its duration, its cause, and the corrective measures taken.

**vi.vi. Control Solid and Floatable Materials in Combined Sewer Discharges.** The Discharger shall continue to implement measures to control solid and floatable materials in combined sewer discharges, including the following:

- (a) Ensuring that overflow structures are baffled or using other means to reduce the volume of floatable materials in combined sewer discharges, and
- (b) Removing solid or floatable materials captured in the storage/transport prior to discharge.

**vi.vii. Develop and Implement Pollution Prevention Program.** The Discharger shall continue to implement a Pollution Prevention Program focused on reducing the impact of combined sewer discharges and overflows on receiving waters. It shall develop and implement this program in accordance with Provision VI.C.3.

The Discharger shall also continue to implement a street sweeping program and clean catch basins at a frequency sufficient to prevent large accumulations of pollutants and debris.

**ix.viii. Notify Public of Combined Sewer Discharges.** The Discharger shall continue to implement a public notification plan to inform citizens of when and where combined sewer discharges occur. The plan shall include the following:

- (a) A mechanism to alert persons using receiving waters affected by combined sewer discharges for recreation; and
- (b) A system to determine the nature and duration of conditions resulting from combined sewer discharges potentially harmful to receiving water users.

Warning signs shall be posted at beach locations where water contact recreation occurs whenever a combined sewer discharge occurs that could affect recreational users at that location. Warning signs shall be posted on the same day as the combined sewer discharge event unless the combined sewer discharge occurs too late in the day for posting to occur during daylight hours, in which case signs shall be posted as soon as practicable the following day, ~~but no later than 8:00 a.m.~~ Public notification shall also include electronic notification of recreational users, ~~e.g.~~ through the Discharger's website, telephone hotline, and mobile application. The Discharger shall maintain records documenting public notification.

**ix.ix. Monitor to Characterize Wet Weather Discharge Impacts and Efficacy of Controls.** The Discharger shall continue monitoring wet weather discharges to determine the occurrence and apparent impacts of combined sewer discharges as described in the MRP and Provision VI.C.5.c.iii.

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There are some days in the winter time when the sun has not risen until 7AM. SFPUC staff have had difficulty with this 8AM constraint because they may need more than one hour to post signs at multiple beaches.

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Electronic communications are highly dynamic and ever changing. It is best not to be too specific about particular communication mechanisms.

**c. Long-Term Control Plan.** The Discharger shall comply with the following provisions, consistent with implementation of its Long-Term Control Plan.

**i. Operational Plan**

- (a) The Discharger shall optimize system operations to minimize combined sewer discharges and maximize pollutant removal during wet weather.
- (b) The Discharger shall capture for treatment, or storage and subsequent treatment, 100 percent of the combined sewage flow collected in the combined sewage system during precipitation events. Captured combined sewage shall be directed to either the plant or storage/transport structures. All combined sewage captured shall receive a minimum of the following treatment:
  - (1) Secondary treatment,
  - (2) Primary treatment, or
  - (3) Equivalent-to-primary treatment (in storage/transport structures).
- (c) The Discharger shall operate the wet weather facilities as set forth below. If the Discharger can demonstrate (e.g., through modeling) that changes to these operating parameters will result in additional storage or treatment, it may implement such changes. Written acknowledgement that the Executive Officer concurs with the Discharger's demonstration shall be obtained prior to implementation.
  - (1) The plant shall have an influent flow rate of at least 43 MGD prior to initiating decant from the Westside Transport to Discharge Point No. 001.
  - (2) The flow rate at Discharge Point No. 001 shall be at least 165 MGD within 2 hours of a discharge from Discharge Point No. CSD-002 or CSD-003.
  - (3) Sea Cliff Pump Station I shall be operated at maximum capacity prior to an overflow at Discharge Point No. CSD-005.
  - (4) Sea Cliff Pump Station II shall be operated at maximum capacity prior to an overflow at Discharge Point No. CSD-007.
- (d) The Discharger shall comply with the following after rains subside:
  - (1) Treatment at the plant shall continue until the Westside Drainage Basin storage/transport structures are empty of stormwater flows.
  - (2) If the National Weather Service predicts a 30 percent chance of rain within the next 24 hours, then the Discharger shall do both the following:
    - Pumping shall be maximized from the Westside storage/transport structure via the Westside Pump Station to the plant and Discharge Point No. 001 until the level of combined sewage in the East Box is between 5 and 10 feet.



- Pumping shall be maximized from the Westside storage/transport structure via the Westside Pump Station to the plant and Discharge Point No. 001 until the level of combined sewage in the West Box is essentially zero.
- (3) If the National Weather Service does not predict rain within the next 24 hours, pumping shall be maximized from the Westside storage/transport structure until the level of combined sewage in the West Box is essentially zero and total flow to the plant is less than 43 MGD.
- i. **Consideration of Sensitive Areas.** The Discharger shall submit a report implementing *Combined Sewer Overflow Control Policy* section II.C.3, "Consideration of Sensitive Areas." The report shall build upon the efforts the Discharger described in *Special Study: Sensitive Areas Feasibility Report for Overflows* (December 2011). At a minimum, the Discharger shall explore how it could eliminate or relocate combined sewer discharges that discharge to sensitive areas. The Discharger shall base its assessment on any new or improved techniques (including but not limited to green infrastructure and low impact development) that can reduce, eliminate, or relocate combined sewer discharges from sensitive areas. The Discharger shall submit the report with its application for permit reissuance.
- ii. **Post-Construction Compliance Monitoring.** The Discharger shall continue monitoring wet weather discharges to characterize their impacts and the efficacy of wet weather discharge controls. The monitoring shall build upon the efforts and results the Discharger described in *Special Study: Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls, for the Oceanside Water Pollution Control Plant* (July 30, 2014).
- (a) **Monitoring Requirements.** Compliance with the following monitoring requirements shall be achieved in accordance with the specifications of Attachment D section III and Attachment G sections III.A.1 and III.A.2. Samples shall be composites comprised of individual grab samples collected at equal intervals of no more than one hour for the duration of each discharge event, but not exceeding 24 hours. If an event does not last at least 24 hours, the Discharger shall sample for as long as possible and report the duration.

**(1) Discharge Point No. 001.** When wet weather discharges occur, the Discharger shall collect effluent samples representing Discharge Point No. 001 at Monitoring Location EFF-001B as defined in the MRP. In addition to the monitoring requirements specified in MRP section IV.B.1, the Discharger shall monitor at least once per year for the pollutants listed in Ocean Plan Table 1 ~~excepting chlorine, tributyltin, radioactivity, acute toxicity and chronic toxicity at least once per year.~~

The Discharger shall also monitor the flow of decant from the Westside Transport at Monitoring Location EFF-DECANT as specified in MRP section XXX. Additionally, the Discharger shall collect samples at Monitoring Location EFF-DECANT at least once in any month in which decant from the

**Commented [A26]:**

SFPUC requests that these pollutants be excepted for the following reasons:

Chlorine: there is no chlorination at the Oceanside Plant.

Tributyltin: has been banned for many years, has not been present in the effluent and the laboratory analysis is different from those of other Table 1 pollutants.

Radioactivity: No reason exists to suspect that the wet weather effluent would have any radioactivity. Table E-4 in the 2009 permit specifies that radioactivity monitoring is not required as part of effluent monitoring.

Acute and chronic toxicity: these tests are difficult to run for wet weather discharges due to the sporadic nature of wet weather.

Westside Transport occurs. The Discharger shall monitor each sample for the following:

- total suspended solids
- settleable solids
- metals (arsenic, cadmium, copper, lead, nickel, selenium, silver, and zinc)
- ammonia (total)

**(2) Discharge Point Nos. CSD-001 through CSD-007.** When wet weather discharges occur, the Discharger shall collect effluent samples representing Discharge Point Nos. CSD-001 through CSD-007 at Monitoring Location EFF-CSD as defined in the MRP. The Discharger shall collect samples whenever a combined sewer discharge event of at least one hour in duration occurs (and may also collect samples representing shorter events). In addition to the monitoring required in MRP Table E-5, the Discharger shall monitor each sample for the following:

- total suspended solids
- settleable solids
- pH
- metals (arsenic, cadmium, copper, lead, nickel, selenium, silver, and zinc)
- ammonia (total)

**(3) Shoreline Monitoring.** The Discharger shall collect shoreline receiving water grab samples at Monitoring Locations SRF-15 east, SRF-15, SRF 17, SRF-18, SRF-19, and SRF-21 through SRF 22 (including Monitoring Locations SRF 15 east and SRF 21.1) as defined in the MRP. In addition to the monitoring required in MRP Table E-87, the Discharger shall monitor enterococcus, *E. coli* fecal coliform, and total coliform at a frequency sufficient to characterize ambient conditions (e.g., weekly).

#### (b) Reporting Requirements

- (1) Routine Reporting.** The Discharger shall, within 60 days of receipt of analytical results, indicate in the transmittal letter for the appropriate self-monitoring report that a sample for this study was collected.
- (2) Final Report.** The Discharger shall report its findings by May 31, 2019. The report shall include the following:
  - All wet weather discharge monitoring data collected (the Discharger shall include data that do not necessarily conform to the test procedures in 40 C.F.R. part 136 and explain these circumstances to provide context for data interpretation);

**Commented [A27]:** SFPUC requests that the decant be monitored in a similar manner as CSDs. Decant sampling has previously been conducted and discussed in the Efficacy reports. Decant samples are collected from the Westside Pump Station.

Sampling decant separately from the treatment plant effluent is necessary because the two streams are comingled at the junction box under the Great Highway where it is impracticable to collect samples.

Please also see the suggested addition of decant flow monitoring in the MRP and the additional language in the Fact Sheet describing decant.

**Commented [A28]:**  
The hold time for pH is 15 minutes. It is not feasible to get the sample to the lab within 15 minutes of collection.

**Commented [A29]:**  
SFPUC requests that the list of monitoring locations and parameter for routine shoreline monitoring be retained from the current permit (Table E-5).

**Commented [A30]:**  
Note that table numbers may change.

- All shoreline monitoring data collected and any discharge-related beach closures;
- Updated water contact recreational use surveys, focusing particularly on recreational use following combined sewer discharge events;
- Evaluation of combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency); and
- Evaluation of combined sewer discharge impacts (e.g., comparing average and maximum discharge and receiving water monitoring data with water quality objectives).

**iii. Long-Term Control Plan Synthesis.** By September 1, 2019, the Discharger shall synthesize and update its Long-Term Control Plan into one document that addresses all Long-Term Control Plan elements listed in the *Combined Sewer Overflow Control Policy* and reflects current circumstances. The synthesis and update shall include the following elements, among others.

- (a) The Long-Term Control Plan shall continue to reflect the historical long-term average design goal for combined sewer discharges of eight combined sewer discharge events per year.
- (b) The Discharger shall set forth operational requirements similar to those listed above to optimize system operations so as to maximize pollutant removal during wet weather and minimize combined sewer discharges.
- (c) The Discharger shall set forth additional measures, to the extent technically and economically feasible, to maximize pollutant removal and minimize combined sewer discharges (e.g., implementing and promoting green infrastructure and low impact development that enhances stormwater detention and percolation).
- (d) The Discharger shall propose a plan for post-construction compliance monitoring of wet weather discharges consistent with the *Combined Sewer Overflow Control Policy*.

**d. Long-Term Control Plan Re-Evaluation.** If U.S. EPA or the Regional Water Board Executive Officer determines that the ~~discharge inhibits the attainment of Discharger has caused a violation of any~~ water quality standards for receiving waters, the Discharger shall evaluate its Long-Term Control Plan and its Combined Sewer Operations and Maintenance Plan, and submit a report identifying additional measures, considering its financial capabilities, to address the violation. The report shall include information on the technical and economic feasibility of the additional measures. The Discharger shall submit this report within 180 days after receiving notification of the violation, and the Discharger shall begin implementing the additional measures described in the report, as may be modified by U.S. EPA or the Regional Water Board Executive Officer, within 60 days after report submittal.

**Commented [A31]:**  
SFPUC suggests the language changes shown for accuracy and clarity.

## 6. Other Special Provisions

- a. **Westside Recycled Water Project Operations Notification.** The Discharger shall notify U.S. EPA and the Regional Water Board prior to commencing Westside Recycled Water Project operations. The notification shall specify the date that operations will commence and describe the project as constructed, including a description and flow diagram of treatment processes, a description and line diagram of how and where ~~brine~~ concentrate is discharged to Discharge Point No. 001, a description of anticipated impacts on effluent discharged to Discharge Point No. 001, and verification that effluent discharged to Discharge Point No. 001 will comply with this Order's requirements. If pollutant concentrations are expected to increase by more than considered in the reasonable potential analysis based on future effluent quality with the Westside Recycled Water Project (see Fact Sheet section IV.C.3.b), the Discharger shall summarize anticipated maximum receiving water concentrations and compare them to the water quality objectives listed in Fact Sheet Table F-11.
- b. **Standard Operating Procedures for Resource Recovery.** If the Discharger receives hauled-in anaerobically-digestible material for injection into an anaerobic digester, the Discharger shall notify the Regional Water Board and develop and implement Standard Operating Procedures for this activity. If hauled in waste for digestion is already ongoing, the Standard Operating Procedures shall be developed within 3 months of the effective date of this Order; otherwise the Standard Operating Procedures shall be developed prior to initiation of hauling. The Standard Operating Procedures shall address material handling, including unloading, screening or other processing prior to anaerobic digestion, and transportation; spill prevention; spill response; avoidance of the introduction of materials that could cause interference, pass through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall provide training to its staff on the Standard Operating Procedures and shall maintain records for a minimum of three years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of three years for the disposition location and quantity of cumulative pre-digestion segregated solid waste hauled offsite.

**Commented [A32]:**  
SFPUC prefers the term "concentrate" over "brine". Because the Plant influent is low in TDS, the reject water from the RO process will not be especially salty. It is appropriate to call it "concentrate" rather than "brine".

**ATTACHMENT A – DEFINITIONS**

**Acute Toxicity** (for Ocean Plan purposes)

a. **Acute Toxicity (TU<sub>a</sub>)**

$$TU_a = \frac{100}{96\text{-hr LC } 50\%}$$

b. **Lethal Concentration 50% (LC 50)**

Percent effluent resulting in 50 percent survival of test organisms, determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is impossible to measure the LC 50 due to greater than 50 percent survival of the test species in 100 percent effluent, the toxicity concentration shall be calculated by the expression:

$$TU_a = \frac{\log(100 - S)}{1.7}$$

where:

S = percentage survival in 100% effluent. If S > 99, TU<sub>a</sub> is zero.

**Areas of Special Biological Significance (ASBS)**

Areas designated by the State Water Resources Control Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. Areas of Special Biological Significance are a subset of “State Water Quality Protection Areas.”

**Average Monthly Effluent Limitation (AMEL)**

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)**

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.

**Chlordane**

Sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

**Commented [A33]:**  
SFPUC notes that several definitions in Attachment A are not relevant to this permit including:

Dredged materials  
Enclosed bays  
Estuaries and coastal lagoons  
Kelp beds

**Chronic Toxicity** (for Ocean Plan purposes)

a. **Chronic Toxicity (TUC)**

$$TUC = \frac{100}{NOEL}$$

b. **No Observed Effect Level (NOEL)**

Maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by a critical life stage toxicity test listed in Ocean Plan Appendix II.

**Combined Sewer Discharge**

Authorized discharge during a wet weather day from an approved combined sewer discharge point. Refer to Table 2 of the Order for a list of approved combined sewer discharge points.

**Combined Sewer Discharge Event**

Wet weather event that results in an authorized discharge from one or more approved combined sewer discharge points. A discrete combined sewer discharge event is separated by at least six hours from any other combined sewer discharge event. Refer to Table 2 of the Order for a list of approved combined sewer discharge points.

**Combined Sewer System Excursion**

Release or diversion of untreated or partially treated wastewater from the combined sewer system that exits the system temporarily and then re-enters it. Excursions do not include releases from privately owned sewer laterals, or authorized combined sewer discharges.

**Daily Discharge**

Either: (1) the total mass of the constituent discharged over the calendar day (12:00 a.m. through 11:59 p.m.) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit) 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.

**DDT**

Sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

**Commented [A34]:**  
SFPUC requests the addition of the chronic toxicity definition that refers to the TST approach. SFPUC suggests using the information on page F-28 about chronic toxicity WQBELs.

**Degradation**

Condition determined by comparison of the waste field and reference sites for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

**Detected, but Not Quantified (DNQ)**

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's Method Detection Limit (MDL). Sample results reported as DNQ are estimated concentrations.

**Dichlorobenzenes**

Sum of 1,2- and 1,3-dichlorobenzene.

**Downstream Ocean Waters**

Waters downstream with respect to ocean currents.

**Dredged Material**

Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

**Dry Weather**

Any weather not defined as wet weather (determined on a day-by-day basis).

**Enclosed Bays**

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 headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes, but is not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

**Endosulfan**

Sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estuaries and Coastal Lagoons**

Waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include, but are not limited to, the Sacramento-San Joaquin Delta as defined by California Water Code section 12220, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**Halomethanes**

Sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH**

Sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**Initial Dilution**

Process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Water Board, whichever results in the lower estimate for initial dilution.

**Instantaneous Maximum Effluent Limitation**

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**

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).

**Kelp Beds** (for purposes of Ocean Plan bacteriological standards)

Significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

**Mariculture**

Culture of plants and animals in marine waters independent of any pollution source.

**Material** (common usage)

Substance or substances of which a thing is made or composed, "substantial."

**Material** (for purposes relating to waste disposal, dredging, and dredged material and fill disposal)

Matter of any kind or description that is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See "Dredged Material."

**Maximum Daily Effluent Limitation (MDEL)**

Highest allowable daily discharge of a pollutant.



**Method Detection Limit (MDL)**

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 40 C.F.R. part 136, Attachment B.

**Minimum Level (ML)**

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. MLs for Ocean Plan Table 1 pollutants are specified in Ocean Plan Appendix II.

**Natural Light**

Measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

**Not Detected (ND)**

Sample results less than the laboratory's Method Detection Limit (MDL).

**Ocean Waters** (for Ocean Plan purposes)

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. If a discharge outside the territorial waters of the State could affect the quality of the waters of the State, the discharge may be regulated to ensure no violation of the Ocean Plan will occur.

**PAHs (polynuclear aromatic hydrocarbons)**

Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls)**

Sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**Pollutant Minimization Program (PMP)**

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 Ocean Plan Table 2 pollutants 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. Cost effectiveness may be considered when establishing PMP requirements. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill PMP requirements.

**Reporting Level (RL)**

Minimum Level (ML) and its associated analytical method chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein (also known as the “Reported Minimum Level”). The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected either from Ocean Plan Appendix II in accordance with Ocean Plan chapter III.C.5.a or established in accordance with Ocean chapter III.C.5.b. 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.

**Shellfish**

Organisms identified by the California Department of Public Health as shellfish for public health purposes (i.e., mussels, clams and oysters).

**Significant Difference**

Statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-Month Median Effluent Limitation**

Highest allowable moving median of all daily discharges for any 180-day period.

**State Water Quality Protection Areas (SWQPAs)**

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All “Areas Of Special Biological Significance” (ASBS) that the State Water Resources Control Board designated in Resolution Nos. 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

**TCDD Equivalents**

Sum of the concentrations of chlorinated dibenzodioxins and chlorinated dibenzofurans multiplied by their respective Toxicity Equivalency Factors (TEFs) and Bioaccumulation Equivalency Factors (BEFs). This approach is based on 40 C.F.R. part 132, Appendix F, Procedure 4, and TEFs the World Health Organization published in 2005.

$$TCDD \text{ Equivalents} = \sum (C)_x(TEF)_x(BEF)_x$$

Where:

(C)<sub>x</sub> = concentration of congener x

(TEF)<sub>x</sub> = toxicity equivalency factor for congener x

(BEF)<sub>x</sub> = bioaccumulation equivalency factor for congener x

Toxicity Equivalency Factors and Bioaccumulative Equivalency Factors are listed in the table below:

Congener	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	1.0	1.0
1,2,3,7,8-PeCDD	1.0	0.9
1,2,3,4,7,8-HxCDD	0.1	0.3
1,2,3,6,7,8-HxCDD	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.05
OCDD	0.0003	0.01
2,3,7,8-TCDF	0.1	0.8
1,2,3,7,8-PeCDF	0.03	0.2
2,3,4,7,8-PeCDF	0.3	1.6
1,2,3,4,7,8-HxCDF	0.1	0.08
1,2,3,6,7,8-HxCDF	0.1	0.2
2,3,4,6,7,8-HxCDF	0.1	0.7
1,2,3,7,8,9-HxCDF	0.1	0.6
1,2,3,4,6,7,8-HpCDF	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.4
OCDF	0.0003	0.02

This definition of TCDD equivalents supersedes the definition of dioxin-TEQ in Attachment G, Table A (but the MLs in Attachment G remain in effect).

**Commented [A35]:** SFPUC requests clarification that this definition supersedes the definition in Attachment G. This description matches the NPDES permit for North San Mateo County Sanitation District (Order No. R2-2012-0013).

Please also see changes to MRP Section IX - "Modifications to Attachment G"

**Toxicity Reduction Evaluation (TRE)**

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 chemicals responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

**Waste**

Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

**Water Recycling**

Treatment of wastewater to render it suitable for reuse, transportation of treated wastewater to the place of use, and actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

**Wet Weather**

Weather in which any one of the following conditions exists as a result of rain (determined on a day-by-day basis):

1. Instantaneous influent flow to the plant exceeds 43 MGD; or

2. Average daily influent flow concentration of TSS or BOD is less than 100 mg/L; or
3. Westside storage/transport flow elevation exceeds 0 feet in the West Box or 18 feet in the East Box.  
(Flow is decanted from the East Box to the West Box occurs only when the East Box storage level exceeds 18 feet.)

**Commented [A36]:**  
SFPUC suggests the changes shown in order to avoid confusion with the decant flow pumped from the Westside Transport to Discharge Point No. 001.

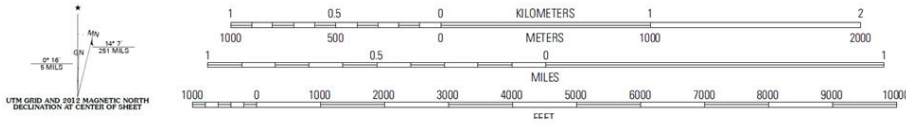
**ATTACHMENT B – FACILITY MAPS**

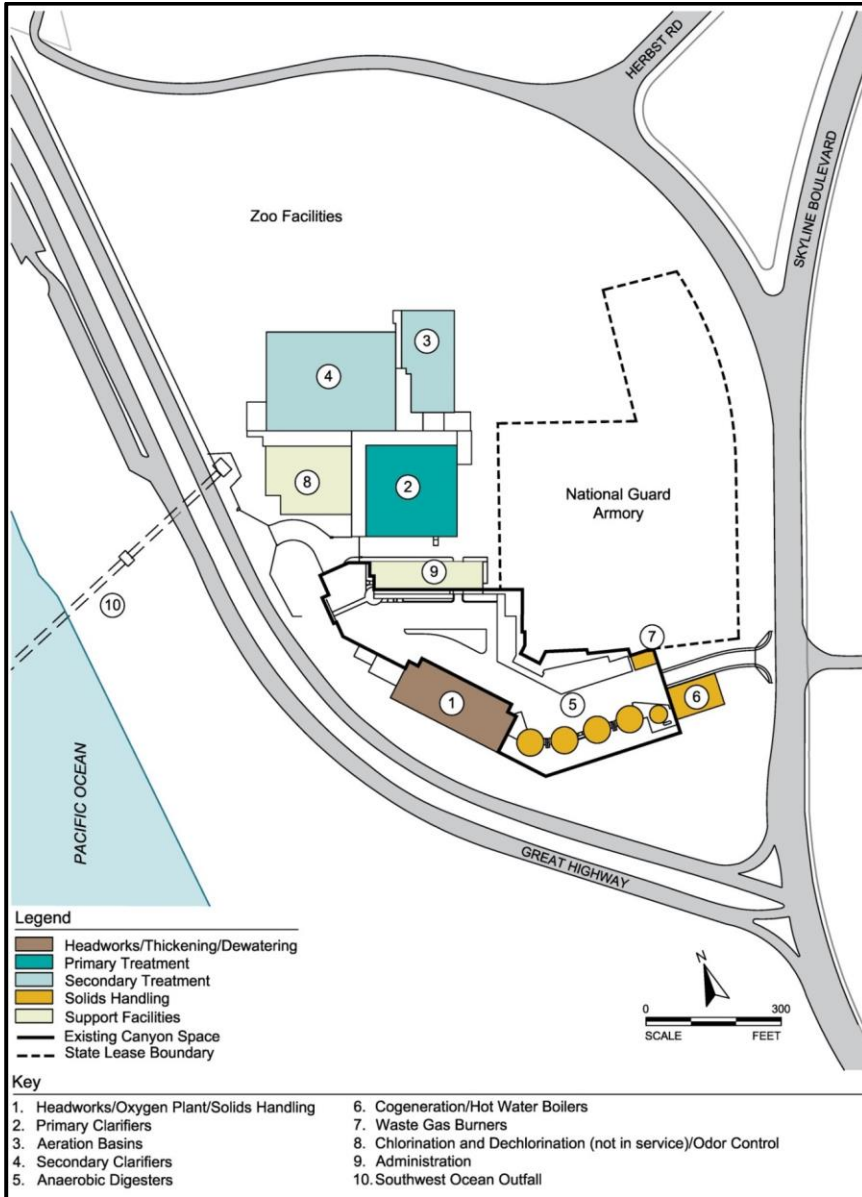


The Facility subject to this Order is shown in the light red (western) area of the map and includes the Oceanside Water Pollution Control Plant and Westside Wet Weather Facilities. The Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, and the Bayside Wet Weather Facilities are shown only for reference.



Scale: 1 inch = 24,000 inches (2,000 feet). Contour interval: 20 feet.  
 North American Vertical Datum of 1988.









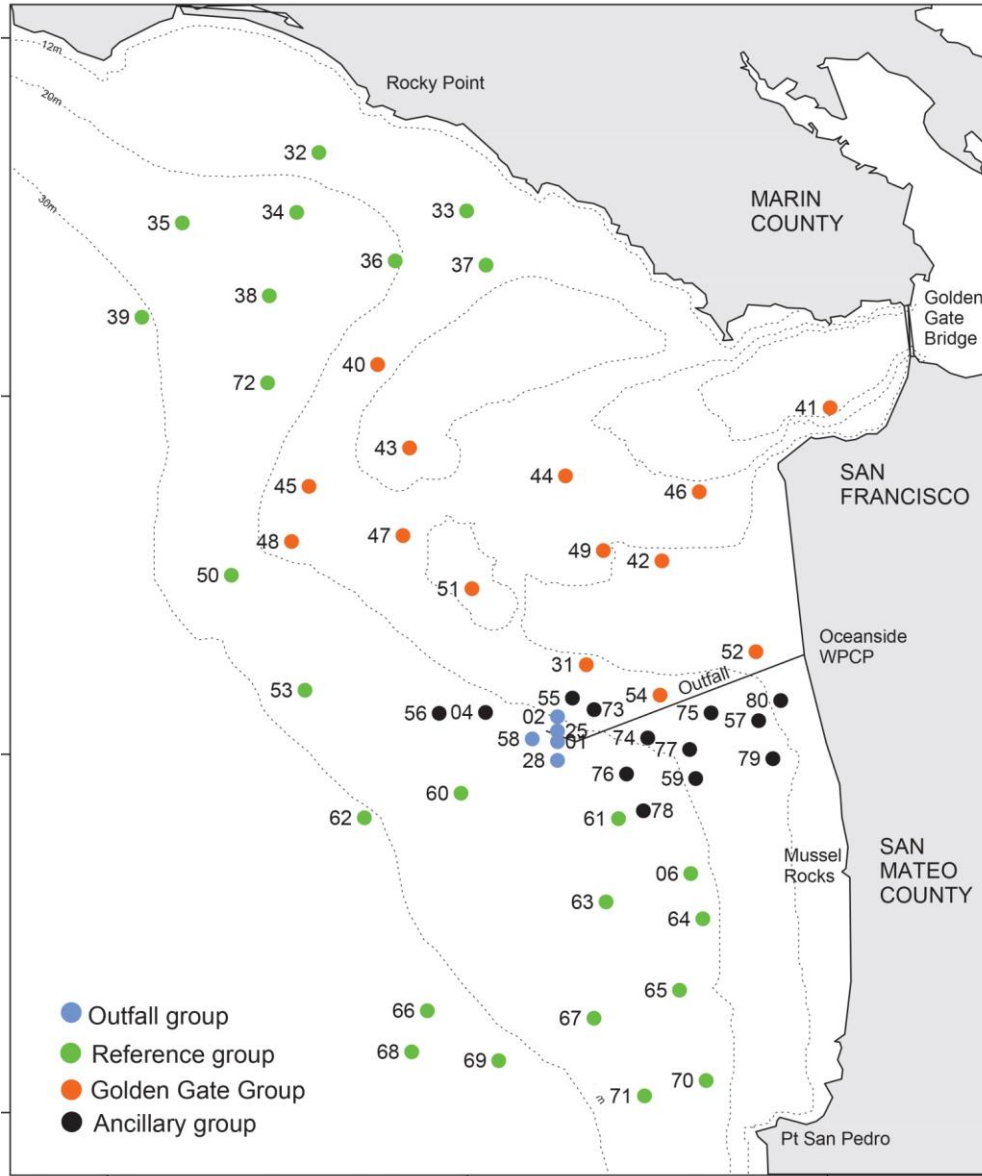


Shoreline Receiving Water Monitoring Locations



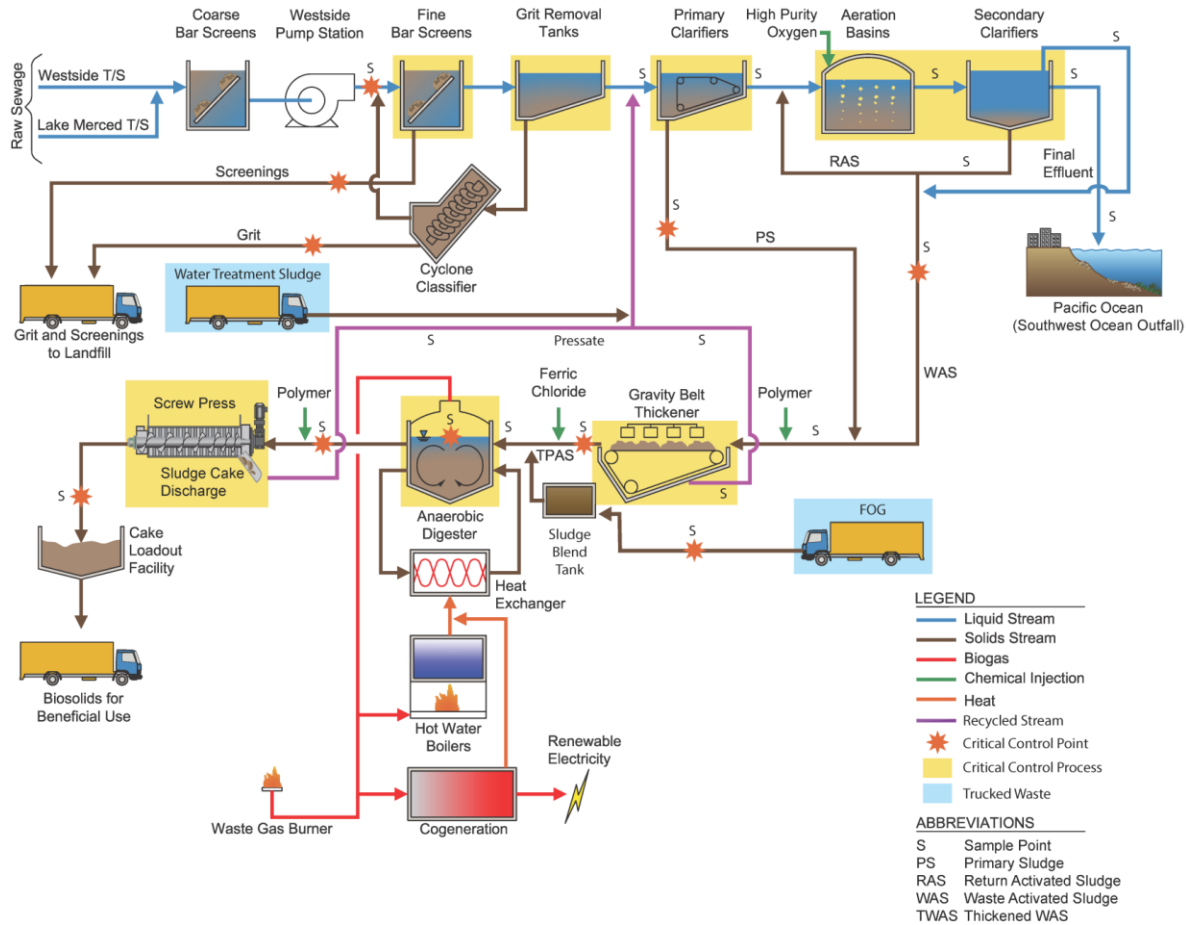
Commented [A37]:  
SFPUC will send slightly revised map.

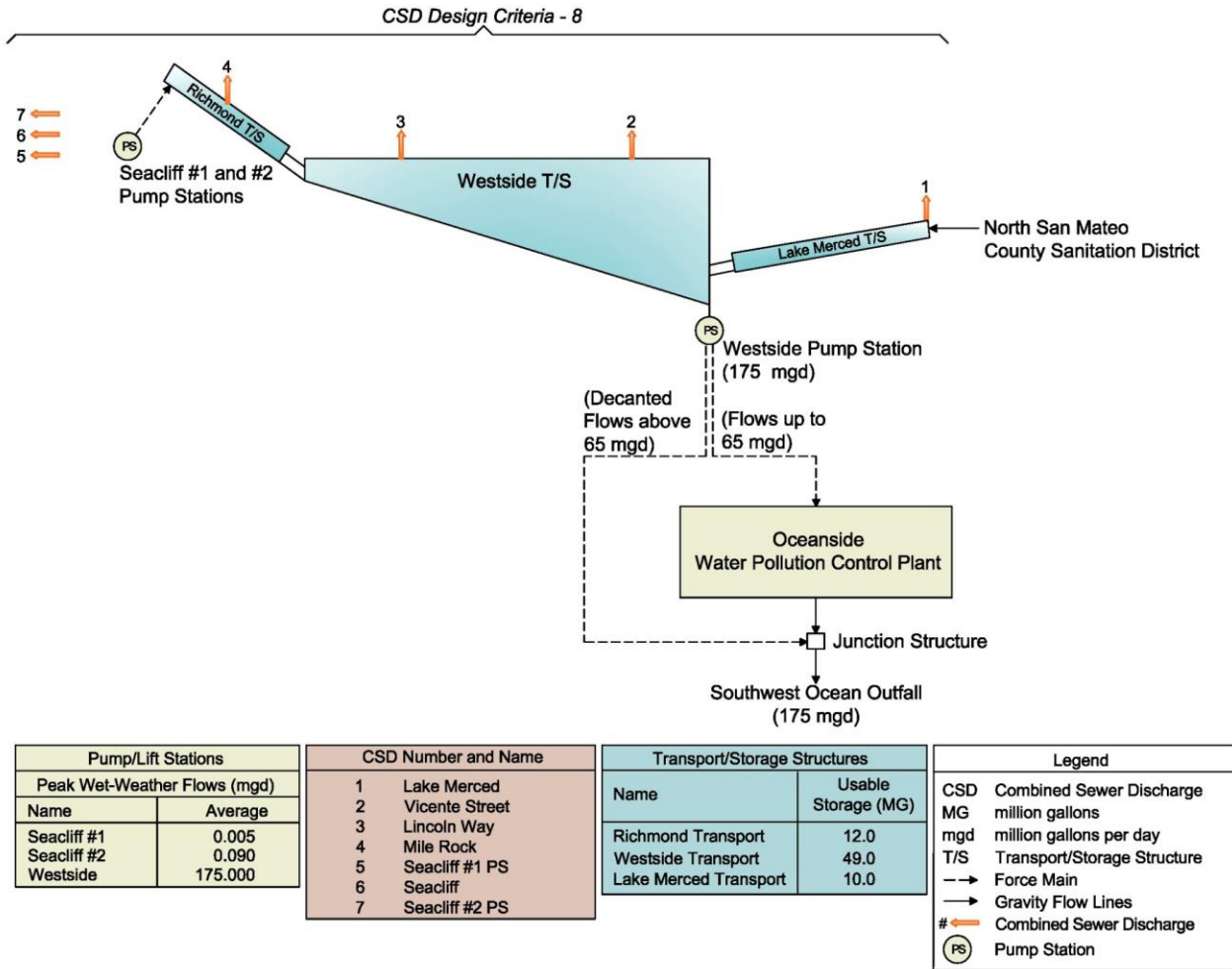
**Offshore Receiving Water Monitoring Locations**



**Commented [A38]:**  
SFPUC will send slightly revised map.

**ATTACHMENT C – PROCESS FLOW DIAGRAMS**





Commented [A39]:  
 SFPUC will send slightly revised schematic.

## ATTACHMENT D – STANDARD PROVISIONS

### I. STANDARD PROVISIONS – PERMIT COMPLIANCE

#### A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and 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; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)”

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 C.F.R. § 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 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(e).)

#### E. Property Rights

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

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 C.F.R. § 122.5(c).)

#### **F. Inspection and Entry**

The Discharger shall allow the Regional Water Board, State Water Board, 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 (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 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 (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of ensuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)"

#### **G. Bypass**

##### **1. Definitions**

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 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 C.F.R. § 122.41(m)(1)(ii).)

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 C.F.R. § 122.41(m)(2).)

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

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)(C).)

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 C.F.R. § 122.41(m)(4)(ii).)

### 3. 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

- b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 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 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 the 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 C.F.R. §§ 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 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 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 40 C.F.R. 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 C.F.R. § 122.41(j)(2).)

**B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 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 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

**B. Signatory and Certification Requirements**

- A.** 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 C.F.R. § 122.41(k).)
- B.** For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any

other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

For a municipality, state, federal, or other public agency, 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.22(b)(2)); and
  - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(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 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 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 C.F.R. § 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 this Order's requirements. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(8).)

## **VI. STANDARD PROVISIONS – ENFORCEMENT**

- A.** The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- B.** U.S. EPA is authorized to enforce the terms of this permit under 40 C.F.R. sections 122.41(a)(2), 122.41(j)(5), and (k)(2).

## **VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS**

### **A. Non-Municipal Facilities**

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

- 1.** That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels” (40 C.F.R. § 122.42(a)(1)):
  - a.** 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
  - b.** 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
  - c.** Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
  - d.** The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
- 2.** That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels” (40 C.F.R. § 122.42(a)(2)):
  - a.** 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));
  - b.** 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
  - c.** Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

- d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

**B. Publicly-Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 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 C.F.R. § 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 the Order. (40 C.F.R. § 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 C.F.R. § 122.42(b)(3).)

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**ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)**

The Clean Water Act (§ 308) and Code of Federal Regulations (40 C.F.R. §§ 122.41[h], 122.41[j]-[l], 122.44[i], and 122.48) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State laws and regulations.

**I. GENERAL MONITORING PROVISIONS**

- A.** The Discharger shall comply with this MRP. The U.S. EPA Director or Regional Water Board Executive Officer may amend this MRP pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5. If any discrepancies exist between this MRP and the “Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits” (Attachment G), this MRP shall prevail.
- B.** The Discharger shall conduct all monitoring in accordance with Attachment D, section III, as supplemented by Attachment G. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. part 136 and must be specified in this permit.

**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-1. Monitoring Station Locations**

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description <sup>[1]</sup>
<u>Plant Influent</u>	INF-001	Any point in plant headworks at which all waste tributary to the plant is present and preceding any phase of treatment, exclusive of any return flows or process side streams that would significantly impact the quantity or quality of the influent.
<u>Plant Effluent (dry weather)</u>	EFF-001A	During dry weather, any point following all phases of treatment at which all waste tributary to Discharge Point No. 001 is present, prior to contact with the receiving water or any concentrate from the recycled water facility. <i>Discharge Location: Longitude -122.577500°, Latitude 37.705000°</i>
<u>Plant Effluent (wet weather)</u>	EFF-001B	During wet weather, any point following all phases of treatment at which all waste tributary to Discharge Point No. 001 is present, prior to contact with the receiving water <del>(may or any concentrate from the recycled water facility or any decant from the Westside Transport.</del> <del>(May be the same as Monitoring Location EFF-001A).</del> <i>Discharge Location: Longitude -122.577500°, Latitude 37.705000°</i>
<u>Decant from the Westside Transport</u>	EFF-DECANT	<u>Any point after the Westside Pump Station wet weather pumps and prior to discharge through Discharge Point No. 001.</u> <i>Discharge Location: Longitude -122.577500°, Latitude 37.705000°</i>



Monitoring Location Type	Monitoring Location Name	Monitoring Location Description <sup>(1)</sup>
Reverse Osmosis Concentrate	EFF-RWC	Any point following all phases of recycled water treatment and prior to the mixing of the reverse osmosis concentrate with secondary effluent from the Plant and prior to discharge through Discharge Point No. 001.  <i>Discharge Location: Longitude -122.577500°, Latitude 37.705000</i>
Comingled Plant Effluent and Reverse Osmosis Concentrate	EFF-001C	In dry weather, any point after the Plant effluent and the reverse osmosis concentrate have fully mixed and prior to discharge through Discharge Point No. 001. Samples associated with this monitoring location may be composited from EFF-001A samples and EFF-RWC samples. If recycled water is not being produced and concentrate is not being discharged at the time of sampling, this location is equivalent to EFF-001A.  <i>Discharge Location: Longitude -122.577500°, Latitude 37.705000</i>
Combined Sewer Discharge Effluent	EFF-CSD	Representative monitoring location for Westside Wet Weather Facilities (Discharge Point Nos. CSD-001 through CSD-007), where all waste tributary to a diversion structure is present and treatment is complete (previously a point prior to discharge from the Vicente West Box).
Combined Sewer Discharge Effluent	<del>EFF-CSD-4001</del>	Any point where all waste tributary to Discharge Point No. CSD-001 is present.
Combined Sewer Discharge Effluent	<del>EFF-CSD-2002</del>	Any point where all waste tributary to Discharge Point No. CSD-002 is present.
Combined Sewer Discharge Effluent	<del>EFF-CSD-3003</del>	Any point where all waste tributary to Discharge Point No. CSD-003 is present.
<del>Combined Sewer Discharge Effluent</del>	<del>EFF-CSD-4</del>	<del>Any point where all waste tributary to Discharge Point No. CSD-004 is present.</del>
Combined Sewer Discharge Effluent	<del>EFF-CSD-5005</del>	Any point where all waste tributary to Discharge Point No. CSD-005 is present.
Combined Sewer Discharge Effluent	<del>EFF-CSD-6006</del>	Any point where all waste tributary to Discharge Point No. CSD-006 is present.
Combined Sewer Discharge Effluent	<del>EFF-CSD-7007</del>	Any point where all waste tributary to Discharge Point No. CSD-007 is present.
Shoreline Receiving Water	SRF-15 east	Nearshore receiving water along Baker Beach, in the surf east of Monitoring Location SRF-15.
Shoreline Receiving Water	SRF-15	Nearshore receiving water along Baker Beach, in the surf at the terminus of Lobos Creek.
Shoreline Receiving Water	SRF-16	Nearshore receiving water along Baker Beach, in the surf opposite the Sea Cliff 2 Pump Station.
Shoreline Receiving Water	SRF-17	Nearshore receiving water along China Beach, in the surf opposite the Sea Cliff 1 Pump Station.
Shoreline Receiving Water	SRF-18	Nearshore receiving water along Ocean Beach, in the surf at the foot of Balboa Street.
Shoreline Receiving Water	SRF-19	Nearshore receiving water along Ocean Beach, in the surf at the foot of Lincoln Way, opposite the Lincoln Overflow Discharge Structure.
Shoreline Receiving Water	SRF-20	Nearshore receiving water along Ocean Beach, in the surf at the foot of Pacheco Street.

**Commented [A40]:**  
 SFPUC requests that the CSD monitoring location names be "CSD-001" etc to be consistent with past records for Oceanside and with the nomenclature for CSDs in the Southeast permit.

**Commented [A41]:**  
 SFPUC requests that CSD-004 be removed from this table. CSD-004 (Mile Rock) has historically not been monitored because of the significant personnel and safety issues associated with accessing this location.

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description <sup>[1]</sup>
Shoreline Receiving Water	SRF-21	Nearshore receiving water along Ocean Beach, in the surf at the foot of Vicente Street, opposite the Vicente Overflow Discharge Structure.
Shoreline Receiving Water	SRF-21.1	Nearshore receiving water along Ocean Beach, in the surf at the foot of Sloat Blvd.
Shoreline Receiving Water	SRF-22	Nearshore receiving water along Ocean Beach, in the surf at Fort Funston, opposite the Lake Merced Overflow Discharge Structure.
Offshore Receiving Water	Station 1	Fixed offshore monitoring program station location. <i>Longitude -122.575333°, Latitude 37.703333°</i>
Offshore Receiving Water	Station 2	Fixed offshore monitoring program station location. <i>Longitude -122.575°, Latitude 37.7105°</i>
Offshore Receiving Water	Station 4	Fixed offshore monitoring program station location. <i>Longitude -122.595°, Latitude 37.711667°</i>
Offshore Receiving Water	Station 6	Fixed offshore monitoring program station location. <i>Longitude -122.5375°, Latitude 37.666667°</i>
Offshore Receiving Water	Station 25	Fixed offshore monitoring program station location. <i>Longitude -122.575°, Latitude 37.703833°</i>
Offshore Receiving Water	Station 28	Fixed offshore monitoring program station location. <i>Longitude -122.574667°, Latitude 37.698333°</i>
Offshore Receiving Water	Station 31	Fixed offshore monitoring program station location. <i>Longitude -122.567167°, Latitude 37.724667°</i>
Offshore Receiving Water	Station 32 (R1)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.641278°, Latitude 37.867992°</i>
Offshore Receiving Water	Station 33 (R2)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.600242°, Latitude 37.851706°</i>
Offshore Receiving Water	Station 34 (R3)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.647436°, Latitude 37.851292°</i>
Offshore Receiving Water	Station 35 (R4)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.679197°, Latitude 37.848322°</i>
Offshore Receiving Water	Station 36 (R5)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.620075°, Latitude 37.837733°</i>
Offshore Receiving Water	Station 37 (R6)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.594847°, Latitude 37.836558°</i>
Offshore Receiving Water	Station 38 (R7)	<del>Fixed Random</del> offshore monitoring program station location. <i>Longitude -122.655014°, Latitude 37.828017°</i>
Offshore Receiving Water	Station 39 (R8)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.690417°, Latitude 37.822°</i>
Offshore Receiving Water	Station 40 (R9)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.624933°, Latitude 37.8088°</i>
Offshore Receiving Water	Station 41 (R10)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.499333°, Latitude 37.796833°</i>
Offshore Receiving Water	Station 42 (R11)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.546°, Latitude 37.754°</i>
Offshore Receiving Water	Station 43 (R12)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.616078°, Latitude 37.785522°</i>
Offshore Receiving Water	Station 44 (R13)	<del>Random</del> Fixed offshore monitoring program station location. <i>Longitude -122.572833°, Latitude 37.777667°</i>

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description <sup>[1]</sup>
Offshore Receiving Water	Station 45 (R14)	RandomFixed offshore monitoring program station location. Longitude -122.643994°, Latitude 37.774825°
Offshore Receiving Water	Station 46 (R15)	RandomFixed offshore monitoring program station location. Longitude -122.535667°, Latitude 37.773333°
Offshore Receiving Water	Station 47 (R16)	RandomFixed offshore monitoring program station location. Longitude -122.617922°, Latitude 37.761064°
Offshore Receiving Water	Station 48 (R17)	RandomFixed offshore monitoring program station location. Longitude -122.648883°, Latitude 37.759408°
Offshore Receiving Water	Station 49 (R18)	RandomFixed offshore monitoring program station location. Longitude -122.562333°, Latitude 37.756833°
Offshore Receiving Water	Station 50 (R19)	RandomFixed offshore monitoring program station location. Longitude -122.665558°, Latitude 37.750003°
Offshore Receiving Water	Station 51 (R20)	RandomFixed offshore monitoring program station location. Longitude -122.598753°, Latitude 37.746217°
Offshore Receiving Water	Station 52 (R21)	RandomFixed offshore monitoring program station location. Longitude -122.519892°, Latitude 37.728631°
Offshore Receiving Water	Station 53 (R22)	RandomFixed offshore monitoring program station location. Longitude -122.645142°, Latitude 37.717872°
Offshore Receiving Water	Station 54 (R23)	RandomFixed offshore monitoring program station location. Longitude -122.546503°, Latitude 37.716511°
Offshore Receiving Water	Station 55 (R24)	RandomFixed offshore monitoring program station location. Longitude -122.570856°, Latitude 37.715694°
Offshore Receiving Water	Station 56 (R25)	RandomFixed offshore monitoring program station location. Longitude -122.607858°, Latitude 37.711456°
Offshore Receiving Water	Station 57 (R26)	RandomFixed offshore monitoring program station location. Longitude -122.519117°, Latitude 37.7094°
Offshore Receiving Water	Station 58 (R27)	RandomFixed offshore monitoring program station location. Longitude -122.582011°, Latitude 37.704303°
Offshore Receiving Water	Station 59 (R28)	RandomFixed offshore monitoring program station location. Longitude -122.536617°, Latitude 37.693239°
Offshore Receiving Water	Station 60 (R29)	RandomFixed offshore monitoring program station location. Longitude -122.601797°, Latitude 37.689136°
Offshore Receiving Water	Station 61 (R30)	RandomFixed offshore monitoring program station location. Longitude -122.558069°, Latitude 37.682042°
Offshore Receiving Water	Station 62 (R31)	RandomFixed offshore monitoring program station location. Longitude -122.628653°, Latitude 37.682272°
Offshore Receiving Water	Station 63 (R32)	RandomFixed offshore monitoring program station location. Longitude -122.561503°, Latitude 37.658792°
Offshore Receiving Water	Station 64 (R33)	RandomFixed offshore monitoring program station location. Longitude -122.534653°, Latitude 37.654064°
Offshore Receiving Water	Station 65 (R34)	RandomFixed offshore monitoring program station location. Longitude -122.541108°, Latitude 37.634142°
Offshore Receiving Water	Station 66 (R35)	RandomFixed offshore monitoring program station location. Longitude -122.611133°, Latitude 37.628397°
Offshore Receiving Water	Station 67 (R36)	RandomFixed offshore monitoring program station location. Longitude -122.564864°, Latitude 37.626331°

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description <sup>[1]</sup>
Offshore Receiving Water	Station 68 (R37)	RandomFixed offshore monitoring program station location. Longitude -122.615486°, Latitude 37.616936°
Offshore Receiving Water	Station 69 (R38)	RandomFixed offshore monitoring program station location. Longitude -122.591336°, Latitude 37.614486°
Offshore Receiving Water	Station 70 (R39)	RandomFixed offshore monitoring program station location. Longitude -122.533708°, Latitude 37.608933°
Offshore Receiving Water	Station 71 (R40)	RandomFixed offshore monitoring program station location. Longitude -122.550842°, Latitude 37.604647°
Offshore Receiving Water	Station 72 (R41)	RandomFixed offshore monitoring program station location. Longitude -122.6555°, Latitude 37.803667°
Offshore Receiving Water	Station 73 (R42)	RandomFixed offshore monitoring program station location. Longitude -122.564833°, Latitude 37.7125°
Offshore Receiving Water	Station 74 (R43)	RandomFixed offshore monitoring program station location. Longitude -122.549833°, Latitude 37.704667°
Offshore Receiving Water	Station 75 (R44)	RandomFixed offshore monitoring program station location. Longitude -122.532333°, Latitude 37.7115°
Offshore Receiving Water	Station 76 (R45)	RandomFixed offshore monitoring program station location. Longitude -122.555833°, Latitude 37.6945°
Offshore Receiving Water	Station 77 (R46)	RandomFixed offshore monitoring program station location. Longitude -122.538333°, Latitude 37.701333°
Offshore Receiving Water	Station 78 (R47)	RandomFixed offshore monitoring program station location. Longitude -122.551167°, Latitude 37.684167°
Offshore Receiving Water	Station 79 (R48)	RandomFixed offshore monitoring program station location. Longitude -122.515167°, Latitude 37.698833°
Offshore Receiving Water	Station 80 (R49)	RandomFixed offshore monitoring program station location. Longitude -122.515°, Latitude 37.715°
Biosolids	BIO-001	Any point representative of biosolids for final disposal, as required by Attachment H-4, section C.

Footnote:

<sup>[1]</sup> Latitude and longitude information is approximate for administrative purposes.

### III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor plant influent at Monitoring Location INF-001 as follows:

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG/MGD	Continuous	Continuous/D
Carbonaceous Biochemical Oxygen Demand (5-day @ 20°C)(CBOD <sub>5</sub> )	mg/L	C-24	1/Week
Total Suspended Solids (TSS)	mg/L	C-24	5/Week

Unit Abbreviations:

MG = million gallons  
 MGD = million gallons per day  
 mg/L = milligrams per liter

Sample Types:

Continuous = measured continuously  
 C-24 = 24-hour composite

**Sampling Frequencies:**

Continuous/D = measured continuously, and recorded and reported daily  
 1/Week = once per week  
 5/Week = five times per week

**Footnote:**

- <sup>(1)</sup> The following flows shall be reported:
- Total flow volume each day (MG)
  - Total flow volume each month (MG)
  - Minimum daily average flow each month (MGD)
  - Maximum daily average flow each month (MGD)
  - Average daily average dry weather flow each month (MGD)
  - Average daily average wet weather flow each month (MGD)
  - Monthly average flow each month (MGD)

**IV. EFFLUENT MONITORING REQUIREMENTS**

**A. Dry Weather Discharges**

During dry weather, the Discharger shall monitor effluent at Monitoring Location EFF-001A and EFF-001C as follows:

**Table E-3. Effluent Monitoring — Dry Weather**

Parameter	Units	Sample Type	Minimum Sampling Frequency
<b>EFF-001A</b>			
Flow <sup>(1)</sup>	MG/MGD	Continuous	Continuous/D
CBOD <sub>5</sub>	mg/L	C-24	1/Week
TSS	mg/L	C-24	5/Week
Grease and Oil <sup>(2)</sup>	mg/L	Grab	1/Quarter
Settleable Solids	mL/L	Grab or C-24	1/Quarter
Turbidity	NTU	C-24	1/Quarter
pH	standard units	Grab	5/Week
<b>EFF-001C</b>			
Ammonia, total	mg/L as N	C-24	1/Quarter
Chronic Toxicity <sup>(3)</sup>	pass or fail and % effect	C-24	1/Quarter
Mercury	µg/L	Grab or C-24	1/Quarter
Inorganic Ocean Plan Table 1 Pollutants <sup>(4)</sup>	µg/L	C-24	1/Quarter
Remaining Ocean Plan Table 1 Pollutants <sup>(5)</sup>	µg/L	Grab or C-24	1/Year

**Unit Abbreviations:**

- MG = million gallons
- MGD = million gallons per day
- mg/L = milligrams per liter
- mg/L as N = milligrams per liter as nitrogen
- mL/L = milliliters per liter
- µg/L = micrograms per liter
- NTU = nephelometric turbidity units
- % effect = percent effect

**Sample Types:**

**Commented [A42]:**  
 SFPUC requests that Flow, CBOD and TSS be applied only to the treatment plant effluent (EFF-001A). See also similar suggested changes to the effluent limitations table in the main body of the permit.

**Commented [A43]:**  
 SFPUC requests that grease and oil, settleable solids, and turbidity monitoring requirements be applied only to the RO concentrate. See also similar suggested changes to the effluent limitations table in the main body of the permit.

**Commented [A45]:**  
 Note that some of the Table 1 pollutants are volatile and should be sampled as grabs.

**Commented [A44]:**  
 The Effluent Characterization Study in VI.C.2 already includes this monitoring requirement.

Continuous = measured continuously  
 C-24 = 24-hour composite  
 Grab = grab sample

**Sampling Frequencies:**

Continuous/D = measured continuously, and recorded and reported daily  
 1/Week = once per week  
 5/Week = five times per week  
 1/Month = once per month  
 1/Quarter = once per quarter  
 1/Year = once per year

**Footnotes:**

- <sup>[1]</sup> The following flows shall be reported:
- Total dry weather flow volume each day from plant to Discharge Point No. 001 (MG)
  - ~~Total flow volume each day from Westside Transport to Discharge Point No. 001 (MG)~~
  - Total dry weather flow volume each month from plant to Discharge Point No. 001 (MG)
  - ~~Total flow volume each month from Westside Transport to Discharge Point No. 001 (MG)~~
  - Minimum daily average dry weather flow each month (MGD)
  - Maximum daily average dry weather flow each month (MGD)
  - Average daily average dry weather flow each month (MGD)
  - Monthly average dry weather flow each month (MGD). Calculated as the total dry weather flow over the month divided by the number of dry weather days in the month
- <sup>[2]</sup> Each oil and grease sampling and analysis event shall be conducted in accordance with U.S. EPA Method 1664A.
- <sup>[3]</sup> Whole effluent toxicity test samples shall be collected coincident with routine composite effluent samples and analyzed in accordance with MRP section V.
- <sup>[4]</sup> The inorganic Ocean Plan Table 1 pollutants are the inorganic pollutants listed in Ocean Plan Table 1, excluding those with monitoring requirements established elsewhere in this table (mercury), except mercury. (Ocean Plan Table II-3 specifies which of the Ocean Table 1 pollutants are inorganic.)
- <sup>[5]</sup> The remaining Ocean Plan Table 1 pollutants are the pollutants listed in Ocean Plan Table 1 other than those for which this table establishes other monitoring requirements (chronic toxicity and ammonia). Chlorine monitoring is not required because the effluent is not disinfected. Radioactivity, acute toxicity, and tributyltin monitoring are also not required.

**Commented [A46]:**  
 This seems to refer to decant. SFPUC suggests deleting this in favor of decant flow monitoring language suggested below.

**Commented [A47]:**  
 Table 1 does not define "inorganic". To be clear, SFPUC suggests adding the reference to Ocean Plan Table II-3.

**Commented [A48]:**  
 SFPUC requests that these pollutants be excepted because:

Tributyltin: has been banned for many years. Tributyltin is analyzed separately from other Table 1 pollutants, so there are additional costs associated with this analysis.

Radioactivity: No reason to suspect that the wet weather effluent would have any radioactivity. Table E-4 in the 2009 permit specifies that radioactivity monitoring is not required as part of effluent monitoring.

Acute toxicity: Acute toxicity monitoring is not required by the Ocean Plan.

**B. Recycled Water Facility Concentrate Discharges**

When recycled water is being produced, the Discharger shall monitor effluent at Monitoring Location EFF-RWC as follows:

**Table E-4. EFF-RWC Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG/MGD	Continuous	Continuous/D
Grease and Oil <sup>[2]</sup>	mg/L	Grab	1/Quarter
Settleable Solids	mL/L	Grab or C-24	1/Quarter
Turbidity	NTU	C-24	1/Quarter
pH	standard units	Grab	5/Week

**Unit Abbreviations:**

MG = million gallons  
 MGD = million gallons per day  
 mg/L = milligrams per liter  
 mL/L = milliliters per liter  
 NTU = nephelometric turbidity units

**Sample Types:**

Continuous = measured continuously  
 C-24 = 24-hour composite  
 Grab = grab sample

**Sampling Frequencies:**

Continuous/D = measured continuously, and recorded and reported daily  
 1/Week = once per week  
 5/Week = five times per week  
 1/Month = once per month  
 1/Quarter = once per quarter  
 1/Year = once per year

Footnotes:

<sup>[1]</sup> The following flows shall be reported:

- Total concentrate flow volume each day from recycled water facility to Discharge Point No. 001 (MG)
- Total concentrate flow volume each month from recycled water facility to Discharge Point No. 001 (MG)
- Minimum daily concentrate flow each month (MGD)
- Maximum daily concentrate flow each month (MGD)
- Average daily average concentrate flow each month (MGD)

<sup>[2]</sup> Each oil and grease sampling and analysis event shall be conducted in accordance with U.S. EPA Method 1664A.

**B.C. Wet Weather Discharges**

1. During wet weather, the Discharger shall monitor effluent at Monitoring Location EFF-001B as follows:

**Table E-5. Effluent Monitoring — Wet Weather**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MG/MGD	Continuous	Continuous/D
CBOD <sub>5</sub>	mg/L	<del>C-24C-X</del>	1/Month
TSS	mg/L	<del>C-24C-X</del>	1/Month
Grease and Oil <sup>[2]</sup>	mg/L	Grab	1/Month
Settleable Solids	mL/L	Grab or C-X	1/Month
Turbidity	NTU	<del>C-X</del>	1/Month
pH	standard units	Grab	1/Month
Ammonia, total	mg/L as N	<del>C-X</del>	1/Month

Unit Abbreviations:

MG = million gallons  
 MGD = million gallons per day  
 mg/L = milligrams per liter  
 mg/L as N = milligrams per liter as nitrogen  
 mL/L = milliliters per liter  
 NTU = nephelometric turbidity units

Sample Types:

Continuous = measured continuously  
 C-24 = 24-hour composite  
 C-X = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour for the duration of the discharge event but not exceeding 24 hours. If an event does not last at least 24 hours, the Discharger shall sample for as long as possible and note the duration in its self-monitoring report.

Grab = grab sample

Sampling Frequencies:

Continuous/D = measured continuously, and recorded and reported daily  
 1/Month = once per month

Footnotes:

<sup>[1]</sup> The following flows shall be reported:

- Total wet weather flow volume each month from plant to Discharge Point No. 001 (MG)

**Commented [A49]:**  
 SFPUC requests that grease and oil, settleable solids, and turbidity monitoring requirements be applied only to the RO concentrate. See also similar suggested changes to the effluent limitations table in the main body of the permit and to the dry weather effluent monitoring table above in the MRP.

- ~~Total flow volume each month from Westside Transport to Discharge Point No. 001 (MG)~~
- ~~Minimum daily average flow each month (MGD)~~
- ~~Maximum daily average wet weather flow each month (MGD)~~
- ~~Average daily average wet weather flow each month (MGD)~~
- ~~Monthly average flow each month (MGD)~~

<sup>(2)</sup> Each oil and grease sampling and analysis event shall be conducted in accordance with U.S. EPA Method 1664A.

**2. During wet weather when the treatment capacity of the Plant is exceeded, the Discharger shall monitor decant effluent at Monitoring Location EFF-DECANT as follows:**

**Table E-6. Effluent Monitoring — Decant**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Volume <sup>(1)</sup>	MG	Continuous	Continuous/D

Unit Abbreviation:

MG = million gallons

Sample Type:

Continuous = measured continuously

Sampling Frequency:

Continuous/D = measured continuously, and recorded and reported daily

Footnote:

<sup>(1)</sup> The following flows shall be reported:

- Total decant flow volume each month.

**2. During each combined sewer discharge event, the Discharger shall monitor combined sewer discharge effluent at Monitoring Locations ~~EFF-CSD-1 through EFF-CSD-7, CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007~~ as follows:**

**Table E-7. Effluent Monitoring — Combined Sewer Discharges**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Event Duration	minutes	--	1/CSD Event
Flow Volume <sup>(1)</sup>	MG	Continuous	1/CSD Event

Unit Abbreviation:

MG = million gallons

Sample Type:

Continuous = measured continuously

Sampling Frequency:

1/CSD Event = once per combined sewer discharge event

Footnote:

<sup>(1)</sup> Flow volume may be estimated using models.

**3. The Discharger shall record the following information for each combined sewer discharge event at Monitoring Locations ~~CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007~~ ~~EFF-CSD-1 through EFF-CSD-7:~~**

- a. Date and time that combined sewer discharge event started;
- b. Rainfall intensity and amount (aggregated hourly data);
- c. Information supporting discharge volume estimate (if estimated); and
- d. ~~Apparent receiving water impacts (e.g., fish kills).~~

**Commented [A50]:**  
 This seems to refer to decant. SFPUC suggests deleting this in favor of decant flow monitoring language suggested below.

**Commented [A51]:**  
 Decant should be monitored separately from the wet weather plant effluent.

**Commented [A52]:**  
 As noted in other comments, access CSD-004 (Mile Rock) entails significant personnel safety issues. SFPUC requests that monitoring at CSD-004 not be required. The 2009 permit did not required monitoring at CSD-004.

**Commented [A53]:**  
 See comment above requesting removal of CSD-004 because of safety and access issues.

**Commented [A54]:**  
 SFPUC believes it is more appropriate for such observations to be required under shoreline monitoring, not CSD monitoring. Please see the language changes before Table E-8.



**V. CHRONIC TOXICITY MONITORING REQUIREMENTS**

**A. Test Species.** The test species shall be purple sea urchin, *Strongylocentrotus purpuratus*, or sand dollar, *Dendraster excentricus*, unless a more sensitive species is identified.

**B. Methodology**

1. The Discharger shall conduct chronic toxicity tests using the Test of Significant Toxicity (TST) statistical approach. Sample collection, handling, and preservation shall be in accordance with U.S. EPA protocols. For toxicity tests requiring renewals, the Discharger shall collect samples on alternating days. Bioassays shall be conducted in compliance with the most recently promulgated test methods, as shown in Appendix E-1. These are currently *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). If these protocols prove unworkable, U.S. EPA or the Regional Water Board Executive Officer, along with the Environmental Laboratory Accreditation Program, may grant exceptions in writing upon the Discharger’s request with justification.
2. The dilution and control waters for toxicity tests shall be obtained from an unaffected area of the receiving water ~~laboratory water prepared~~ and used as specified in the test methods manual. If the dilution water is different from the test organism culture water, the Discharger shall test a second control using culture water.
3. The Discharger shall conduct ~~monthly~~ concurrent reference toxicant tests. All reference toxicant test results shall be reviewed and reported using the ~~EC<sub>25</sub>~~ IC50 or EC50 values.
4. If an effluent toxicity test does not meet all Test Acceptability Criteria in the test methods manual, the Discharger shall resample and retest as soon as possible.
5. ~~Effluent samples for toxicity testing shall contain effluent concentrations based on Westside Water Recycling Project recycled water production at the time the effluent sample is collected, as set forth in the table below. The test sample effluent concentration (discharge in-stream waste concentration [IWC]) prior to Westside Water Recycling Project operations shall be 0.67627 percent):~~

**Table E – Effluent Concentration (Discharge IWC) for Chronic Toxicity Tests**

Recycled Water Production	Effluent Concentration (%)
Less than 1.0 MGD	0.67
Less than 2.0 MGD	0.58
Less than 3.0 MGD	0.51
Less than 4.0 MGD	0.45
Less than 5.0 MGD	0.41
At least 5.0 MGD	0.37

Unit Abbreviation:  
 MGD = million gallons per day

**Commented [A55]:**  
 Current practice is to use receiving water.  
  
 The language added here is from the existing (2009) Oceanside permit

**Commented [A56]:**  
 SFPUC performs quarterly tests for chronic toxicity. Reference toxicant tests are performed concurrently

**Commented [A57]:**  
 SFPUC requests that this requirement be retained from the current permit.

**Commented [A58]:**  
 0.27% corresponds to a dilution factor of 372  
  
 Please see other dilution comments and December 16 e-mail from Amy Chastain for a discussion of SFPUC’s reasons for suggesting that the chronic toxicity limitation be based on a single dilution factor.

**C. Compliance Determination.** Compliance with the chronic toxicity effluent limitation shall be evaluated using the TST statistical approach at the discharge IWC. The Discharger shall determine “pass” or “fail” and “percent effect” from a toxicity test at the discharge IWC using the TST statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be:

$$\text{mean discharge IWC response} \leq 0.75 \times \text{mean control response}$$

The Discharger shall report a test that rejects this null hypothesis as “pass” and a test that does not reject this null hypothesis as “fail.” The relative “percent effect” at the discharge IWC shall be defined and reported as:

$$[(\text{mean control response} - \text{mean discharge response}) / \text{mean control response}] \times 100\%$$

**D. Monitoring Frequency.** The Discharger shall conduct chronic toxicity tests quarterly. If a chronic bioassay test indicates a violation of the chronic toxicity effluent limitation, the Discharger shall retest within two weeks of receiving test results and continue with biweekly (i.e., once every two weeks) accelerated monitoring until at least two consecutive accelerated monitoring samples comply with the chronic toxicity effluent limitation. Based on the test results, U.S. EPA and the Regional Water Board Executive Officer may specify a different accelerated monitoring frequency to ensure that accelerated monitoring provides useful information.

If an accelerated monitoring test ~~violates/exceeds~~ the chronic toxicity effluent limitation and the source of toxicity is unknown, the Discharger shall initiate toxicity reduction evaluation (TRE) procedures in accordance with MRP section V.F, below. The Discharger shall return to routine monitoring after implementing appropriate elements of the TRE and either (1) at least two consecutive samples comply with the chronic toxicity effluent limitation or (2) based on the TRE results, U.S. EPA and the Regional Water Board Executive Officer determine that accelerated monitoring would no longer provide useful information. Routine monitoring is not required ~~shall continue~~ during a TRE; however, monitoring conducted pursuant to a TRE shall satisfy the requirements for accelerated monitoring while the TRE is underway. but TRE monitoring results will not be used to determine compliance with the chronic toxicity effluent limitation.

**Commented [A59]:**  
SFPUC would like to request that accelerated monitoring results NOT be used for assessing compliance. We understand that the purpose of accelerated monitoring and the TRE/TIE process is to determine the cause of toxicity, not to further punish a discharger for exceeding a toxicity threshold/limit.

**Commented [A60]:**  
SFPUC requests that routine monitoring not be performed during TRE monitoring – SFPUC plans to dedicate staff resources into the investigation, not routine monitoring. In addition, SFPUC requests that the TRE results not be used to determine compliance with the limit. Again, SFPUC understands that the purpose of accelerated monitoring and the TRE/TIE process is to determine the cause of toxicity, not to further punish a discharger for exceeding a toxicity threshold/limit.

**E. Reporting Requirements.** For each chronic toxicity test, the Discharger shall report the following, at a minimum, in self-monitoring reports:

1. Sample date
2. Test initiation date
3. Test species
4. Biological and statistical endpoint values (e.g., number of young, growth rate, percent effect, and pass or fail at the discharge IWC).

5. Available water quality measurements for each test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, and ammonia).
6. Statistical program (e.g., TST calculator, CETIS, etc.) output results for each toxicity test.

**F. Toxicity Reduction Evaluation (TRE)**

1. The Discharger shall prepare a generic TRE work plan by September 1, 2015, to be ready to respond to toxicity events. The generic plan shall be based on *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833/B-99/002, 1999). The Discharger shall review and update the plan as necessary so it remains current and applicable to the Facility and discharge.
2. If an accelerated monitoring test violates the chronic toxicity effluent limitation and the source of toxicity is unknown, the Discharger shall submit a specific TRE work plan within 30 days. The specific work plan shall be the generic work plan revised as appropriate for this toxicity event after consideration of available discharge data. The Discharger shall initiate the TRE in accordance with the work plan, incorporating any comments received from U.S. EPA or the Regional Water Board Executive Officer. The TRE shall be a tiered evaluation as summarized below:
  - a. Tier 1 shall consist of basic data collection and review (routine and accelerated monitoring).
  - b. Tier 2 shall consist of a facility performance evaluation including treatment process optimization, including operational practices and in-plant process chemical uses.
  - c. Tier 3 shall consist of a toxicity identification evaluation (TIE).
  - d. Tier 4 shall consist of a toxicity source evaluation.
  - e. Tier 5 shall consist of a toxicity control evaluation, including options for modifications of in-plant treatment processes or source control measures.
  - f. Tier 6 shall consist of implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.

The objective of a TIE shall be to identify the substance or combination of substances causing the observed toxicity. The Discharger shall employ all reasonable efforts using currently available TIE methodologies (*Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* [EPA 600/6-91/005F, 1992]; *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* [EPA 600/R-92/080, 1993]; *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* [EPA 600/R-92/081, 1993]; and *Marine Toxicity Identification Evaluation [TIE]: Phase I Guidance Document* [EPA 600/R-96-054, 1996]).

3. The Discharger may end a TRE at any stage if at least two consecutive samples comply with the chronic toxicity effluent limitation.

**G. Species Screening Tests**

1. The Discharger shall conduct a chronic toxicity screening test as described below (or as described in applicable State Water Board plan provisions that become effective after adoption of this Order) following any significant change in the nature of the effluent, except a change that reduces pollutant concentrations or a change resulting from operation of the Westside Water Recycling Project. If there is no significant change in the nature of the effluent, the Discharger shall conduct a screening test prior to submitting an application for permit reissuance.
2. Prior to undertaking a screening test, the Discharger shall submit a screening test proposal. The proposal shall address the elements below. If within 30 days U.S. EPA and the Regional Water Board Executive Officer do not comment on the proposal, the Discharger shall commence the screening test.
3. The screening test shall use the protocols described in *Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, August 1995) and test species specified in the table below:

**Table E-7. Critical Life Stage Toxicity Tests**

Species	Scientific Name	Effect	Test Duration
Giant kelp	<i>Macrocystis pyrifera</i>	Percent germination; germ tube length	48 hours
Abalone	<i>Haliotis rufescens</i>	Abnormal shell development	48 hours
Oyster Mussel	<i>Crassostrea gigas</i> <i>Mytilus edulis</i>	Abnormal shell development; percent survival	48 hours
Echinoderms - Urchins - Sand dollar	<i>Strongylocentrotus purpuratus</i> , <i>S. franciscanus</i> or <i>Dendraster excentricus</i>	Percent fertilization or larval development	1 hour (fertilization) or 72 hours (development)
Shrimp	<i>Holmesimysis costata</i>	Percent survival; growth	7 days
Topsmelt	<i>Atherinops affinis</i>	Percent survival; growth	7 days

Commented [A61]: Note that at present there seem to be two Table E-7s.

4. The Discharger shall conduct screening tests in two stages:
  - a. Stage 1 shall consist of a minimum of one battery of at least four tests conducted concurrently. Test species shall include at least one plant, one invertebrate, and one fish.
  - b. Stage 2 shall consist of a minimum of two test batteries conducted monthly using the three most sensitive species determined based on the stage 1 test results.

5. The Discharger shall use appropriate controls and conduct concurrent reference toxicant tests.
6. The Discharger shall conduct tests using at least the following effluent concentrations: 10%, 5%, 2.5%, 1.25%, 0.625%, and 0%, where “%” is percent effluent as discharged. The Discharger may test alternative concentrations if necessary to reflect discharge conditions and if approved by U.S. EPA or the Regional Water Board Executive Officer.

## VI. RECEIVING WATER MONITORING REQUIREMENTS

### A. Shoreline Monitoring

Following any combined sewer discharge event at Discharge Point Nos. CSD-001 through CSD 007, the Discharger shall monitor shoreline receiving waters as indicated in the table below. Monitoring shall be conducted at each specified location for up to seven days or until the single-sample bacteriological standards of Cal. Code of Regs. tit. 17, section 7958(a)(1), are met (i.e., the enterococcus density is less than 104 most probable number (MPN)/100 mL, the fecal coliform density is less than 400 MPN/100 mL, and the total coliform density is less than 10,000 MPN/100 mL). Samples shall be collected between 8:00 a.m. and 4:00 p.m.

When performing the shoreline monitoring, the Discharger shall observe the receiving water and record information about whether there are any apparent receiving water impacts (e.g., fish kills).

**Commented [A62]:** SFPUC requests that the current shoreline monitoring parameters be retained.

**Commented [A63]:** See earlier comment about apparent receiving water impacts

**Table E-8. Shoreline Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Enterococcus <sup>[2]</sup>	MPN/100 mL <sup>[4]</sup>	Grab	1/Day <sup>[1]</sup>
Fecal Coliform <i>E. Coli</i> <sup>[3]</sup>	MPN/100 mL <sup>[4]</sup>	Grab	1/Day <sup>[1]</sup>
Total Coliform	MPN/100 mL <sup>[4]</sup>	Grab	1/Day <sup>[1]</sup>

**Unit Abbreviation:**

MPN/100 mL = most probable number per 100 milliliters

**Sample Type:**

Grab = grab sample

**Sampling Frequency:**

1/Day = once per day

**Footnotes:**

<sup>[1]</sup> Sampling is only required at the monitoring locations indicated below when there is a combined sewer discharge event at the discharge points indicated below:

Discharge Points	Monitoring Locations
CSD-001	SRF-22
CSD-002	SRF-21
CSD-003	SRF-19
CSD-004	SRF-17 and SRF-18
CSD-005, CSD-006, or CSD-007	SRF-15 east, SRF-15, SRF-16, and SRF-17
CSD-007	SRF-15 east, SRF-15, and SRF-16

**Commented [A64]:** SFPUC requests that monitoring requirements at CSD-004 be removed. This would be a new requirement to sample China beach and Balboa after a discharge from CSD-004 (Mile Rock). Due to the location of CSD-004 and the safety concerns associated with access, it is difficult to determine when Mile Rock is discharging.

**Commented [A65]:** See previous comments about CSD-004.

**Commented [A66]:** CSD-006 is not accessible from the beach. Shoreline monitoring is not possible for this discharge point.

- [2] The Discharger shall monitor for enterococcus using U.S. EPA-approved methods, such as the IDEXX Enterolert method. When replicate analyses are made, the reported result shall be the geometric mean of the replicate results.
- [3] Alternatively, the Discharger may measure *E. coli* as recommended for the U.S. EPA Beach Monitoring Program. *E. coli* may be measured using the IDEXX Colilert method.
- [4] Results may be reported as Colony Forming Units (CFU)/100 mL if the laboratory method used provides results in CFU/100 mL.

## B. Offshore Monitoring

The Discharger shall continue the Southwest Ocean Outfall Regional Monitoring Program, monitoring the area outside San Francisco Bay between Rocky Point in Marin County and Point San Pedro in San Mateo County, to identify any environmental effects of the discharge on receiving waters, sediment, or aquatic life.

- 1. Sampling Frequency.** The Discharger shall sample annually in the fall when sediments are least disturbed and benthic infauna are most abundant.
- 2. Sediment Sampling.** The Discharger shall collect benthic samples from the 7 historical fixed monitoring locations (Stations 1, 2, 4, 6, 25, 28, and 31) to maintain time series data, and a minimum of 30 out of the 49 ~~random~~ **fixed reference** monitoring locations (Stations 32 through 80~~74~~). Samples shall be collected using a 0.1-square meter Smith-McIntyre grab sampler. The Discharger shall collect two grab samples at each station and composite the top 5 centimeters of sediment from each grab prior to analysis. The Discharger shall analyze the sediment samples for the following:
  - Total volatile solids
  - Total organic carbon
  - Kjeldahl nitrogen
  - Grain size
  - Inorganic toxic pollutants: aluminum, arsenic, cadmium, chromium, chromium (VI), copper, iron, lead, manganese, mercury, nickel, selenium, silver, and zinc. The Discharger may elect to report total chromium in lieu of chromium (VI).
  - DDT, PCBs, and PAHs
- 3. Infaunal Sampling.** The Discharger shall analyze one benthic grab sample collected from each of the locations identified in the paragraph above for infaunal organisms. This sample shall be passed through 1.0 and 0.5 millimeter sieves. The Discharger shall relax organisms retained on each sieve and preserve them for later enumeration and taxonomic determination to the lowest taxon.
- 4. Bioaccumulation Monitoring.** The Discharger shall conduct bioaccumulation monitoring to assess whether the concentrations of priority pollutants in marine life bioaccumulate to levels harmful to human health or the marine community. Tissue samples to assess bioaccumulation shall be composite samples collected at Station 1, 2, 25, or 28, and a reference location outside the influence of the discharge. Three composite samples shall be collected of one macroinvertebrate species at each location. Each composite sample shall consist of ten or more organisms of each species, with the preferred species being Dungeness crab (*Metacarcinus magister*). Muscle and hepatopancreas tissues shall be analyzed for inorganic

**Commented [A67]:** SFPUC requests this proposed language describing the offshore monitoring stations. These changes clarify all offshore locations are fixed, even though the locations for stations 32 through 80 were originally selected randomly.

**Commented [A68]:** Table E-1 lists 49 fixed reference stations: stations 32-80.

pollutants (i.e., arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), DDT, PCBs, and PAHs.

5. **Adaptive Management.** The Discharger shall confer with U.S. EPA and the Regional Water Board regarding any proposed changes to the monitoring program in response to ongoing analyses of monitoring data to maximize the amount of relevant and useful data that can be collected within the term of this Order.
6. **Reporting.** All offshore monitoring data shall be reported to U.S. EPA and the Regional Water Board in an Annual Report submitted by August 30 of the year following sampling to allow for time to make modifications, if necessary, for the following sampling event. The report shall include raw data tables and summaries for each monitoring component. A comprehensive cumulative summary report shall be submitted with the application for permit reissuance.

**C. Bacteria Monitoring**

1. By June 1, 2016, the Discharger shall submit a work plan to U.S. EPA and the Regional Water Board for a study to collect data or develop a model sufficient to evaluate whether bacteria discharged through Discharge Point No. 001 could affect the territorial waters of the State. The work plan shall identify indicator bacteria to be monitored, describe how and where samples will be collected and analyzed, and set forth a schedule for study implementation.
2. The Discharger shall implement the study plan, incorporating any comments U.S. EPA or the Regional Water Board provide, and submit a report containing the study findings to U.S. EPA and the Regional Water Board with the application for permit reissuance.

**Commented [A69]:**  
 SFPUC would like to have the option of using a model to demonstrate that bacteria discharged through Discharge Point No. 001 does not affect the territorial waters of the State.

**VII. PRETREATMENT AND BIOSOLIDS MONITORING REQUIREMENTS**

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

**Table E-9. Pretreatment and Biosolids Monitoring Requirements**

Constituents	Influent INF-001	Effluent EFF-001A <sup>[1]</sup>	Biosolids BIO-001 <sup>[2]</sup>	Sample Type	
				Influent and Effluent	Biosolids
VOC <sup>[3]</sup>	1/Quarter	1/Quarter	2/Year	Multiple grabs <sup>[7a]</sup>	Grabs <sup>[7d]</sup>
BNA <sup>[4]</sup>	1/Quarter	1/Quarter	2/Year	Multiple grabs <sup>[7a]</sup>	Grabs <sup>[7d]</sup>
Metals <sup>[5]</sup>	1/Month	1/Month	2/Year	24-hour composite <sup>[7b]</sup>	Grabs <sup>[7d]</sup>
Hexavalent Chromium <sup>[6]</sup>	1/Month	1/Month	2/Year	Multiple grabs <sup>[7a]</sup>	Grabs <sup>[7d]</sup>
Mercury	1/Month	1/Month	2/Year	24-hour composite <sup>[7b][7c]</sup>	Grabs <sup>[7d]</sup>
Cyanide	1/Month	1/Month	<del>2/Year</del>	Multiple grabs <sup>[7a]</sup>	<del>Grabs <sup>[7d]</sup></del>
Molybdenum	---	---	2/Year	---	Grabs <sup>[7d]</sup>

**Commented [A70]:**  
 SFPUC requests the removal of the biosolids sampling for cyanide, because trace inorganic cyanides and nitriles do not survive mesophilic anaerobic digestion.



Constituents	Influent INF-001	Effluent EFF-001A <sup>[1]</sup>	Biosolids BIO-001 <sup>[2]</sup>	Sample Type	
				Influent and Effluent	Biosolids
Organic Nitrogen	---	---	2/Year	---	Grabs <sup>[7d]</sup>
Ammonia Nitrogen	---	---	2/Year	---	Grabs <sup>[7d]</sup>
Total Solids	---	---	2/Year	---	Grabs <sup>[7d]</sup>

Sampling Frequencies:

- 1/Month = once per month
- 1/Quarter = once per quarter
- 2/Year = twice per year

Footnotes:

- <sup>[1]</sup> Effluent monitoring conducted in accordance with Table E-3 can be used to satisfy these pretreatment monitoring requirements.
- <sup>[2]</sup> Since the Discharger operates its solar drying operations only during the dry season, the biosolids monitoring frequency is once per year during those times when it does not stockpile biosolids (i.e., the dry season). However, if and when the Discharger stockpiles biosolids (e.g., during wet weather), it shall report biosolids monitoring results for the stockpile during the wet season monitoring as well (i.e., twice per year).
- <sup>[3]</sup> VOC: volatile organic compounds
- <sup>[4]</sup> BNA: base/neutrals and acids extractable organic compounds
- <sup>[5]</sup> The metals are arsenic, cadmium, copper, lead, nickel, selenium, silver, and zinc.
- <sup>[6]</sup> The Discharger may elect to run total chromium instead of hexavalent chromium. Total chromium samples may also be 24-hour composites.
- <sup>[7]</sup> Sample types:
  - a. Multiple grabs samples for VOC, BNA, hexavalent chromium, and cyanide, shall be made up of a minimum of four discrete grab samples, collected equally spaced over a 24-hour period, with each grab sample analyzed separately and the results mathematically flow-weighted, or with grab samples combined (volumetrically flow-weighted) prior to analysis.
  - b. Each 24-hour composite sample may be made up of discrete grab samples analyzed separately with the results mathematically flow-weighted, or grab samples combined (volumetrically flow-weighted) prior to analysis. If an automatic compositor is used, 24-hour composite samples shall be obtained through flow proportioned composite sampling.
  - c. The Discharger shall use ultra-clean sampling (U.S. EPA 1669) and ultra-clean analytical method (U.S. EPA 1631) for mercury monitoring, except when levels are expected to exceed 10 µg/L, in which case use of ultra-clean sampling and analysis shall be optional. Automatic compositors are allowed for mercury if either (1) the compositing equipment (hoses and containers) complies with ultra-clean specifications, or (2) equipment blank samples demonstrate that the compositing equipment has not contaminated the sample.
  - d. Biosolids collection shall comply with the requirements for sludge monitoring in Attachment H, Appendix H-3. The biosolids sample analyzed shall be a composite sample of the biosolids for final disposal. The Discharger shall also comply with biosolids monitoring requirements in 40 C.F.R. part 503.

**VIII. REPORTING REQUIREMENTS**

**A. General Monitoring and Reporting Requirements**

The Discharger shall comply with all Standard Provisions (Attachments D and G) related to monitoring, reporting, and recordkeeping, with modifications shown in MRP sections IX and X, below.

**B. Self-Monitoring Reports (SMRs)**

1. **SMR Format.** The Discharger shall electronically submit SMRs using the State Water Board’s California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service



interruption for electronic submittal. Submittal of SMRs to CIWQS shall fulfill the requirement to submit SMRs that are not discharge monitoring reports (DMRs) to U.S. EPA.

**2. SMR Due Dates and Contents.** The Discharger shall submit SMRs by the due dates, and with the contents, specified below.

**a. Monthly SMRs** — Monthly SMRs shall be due 30 days after the end of each calendar month, covering that calendar month. The monthly SMR shall contain the applicable items described in sections V.B and V.C of both Attachments D and G. See provisions VI.C.2 (Effluent Characterization Study and Report), VI.C.5.b.iv (Nine Minimum Controls), and VI.C.5.c.iii (Post-Construction Compliance Monitoring) of this Order for information that must also be reported with monthly SMRs.

Monthly SMRs shall include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the Discharger shall include the results of such monitoring in the calculations and reporting for the SMR.

**b. Annual SMR** — Annual SMRs shall be due February 1 each year, covering the previous calendar year. The annual SMR shall contain the items described in Attachment G section V.C.1.f. See also provision VI.C.2 (Effluent Characterization Study and Report) of the Order for requirements to submit reports with the annual SMR.

**c. Specifications for Submitting SMRs to CIWQS** — The Discharger shall submit analytical results and other information using one of the following methods.

**Table E-10. CIWQS Reporting**

Parameter	Method of Reporting	
	EDF/CDF data upload or manual entry	Attached File
All parameters identified in influent, effluent, and receiving water monitoring tables (except Dissolved Oxygen and Temperature)	Required for all results	
Dissolved Oxygen Temperature	Required for monthly maximum and minimum results only <sup>[1]</sup>	Discharger may use this method for all results or keep records
Cyanide Arsenic Cadmium Chromium Copper Lead Mercury Nickel Selenium Silver Zinc Dioxins & Furans (by U.S. EPA Method 1613)	Required for all results <sup>[2]</sup>	

Parameter	Method of Reporting	
	EDF/CDF data upload or manual entry	Attached File
Antimony Beryllium Thallium Other Pollutants (by U.S. EPA Methods 601, 602, 608, 610, 614, 624, and 625)	Not required (unless identified in influent, effluent, or receiving water monitoring tables), but encouraged <sup>(1)</sup>	Discharger may use this method to submit results with application for permit reissuance, unless data are uploaded by CDF/EDF
Volume and Duration of Blended Discharge <sup>(3)</sup>	Required for all blended effluent discharges	
Analytical Method	Not required (Discharger may select "data unavailable") <sup>(1)</sup>	
Collection Time Analysis Time	Not required (Discharger may select "0:00") <sup>(1)</sup>	

**Footnotes:**

- <sup>(1)</sup> The Discharger shall continue to monitor at the minimum frequency specified in this MRP, keep records of the measurements, and make the records available upon request.
- <sup>(2)</sup> These parameters require EDF/CDF data upload or manual entry regardless of whether monitoring is required by this MRP or other provisions of this Order (except for biosolids, sludge, or ash provisions).
- <sup>(3)</sup> The requirement for volume and duration of blended discharge applies only if this Order authorizes the Discharger to discharge blended effluent.

The Discharger shall arrange all reported data in a tabular format and summarize the data to clearly illustrate whether the facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format, the Discharger shall electronically submit the data in a tabular format as an attachment.

**3. Monitoring Periods.** Monitoring periods for all required monitoring shall be as set forth below unless otherwise specified.

**Table E-11. Monitoring Periods**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Permit effective date	All
1/Day	Permit effective date	Midnight through 11:59 p.m.
1/Week or 5/Week	Sunday following (or on) permit effective date	Sunday through Saturday
1/Month	First day of calendar month following (or on) permit effective date	First day of calendar month through last day of calendar month
1/Quarter	Closest of January 1, April 1, July 1, or October 1 before or after permit effective date <sup>(1)</sup>	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
1/Year	Closest January 1 and July 1 before or after permit effective date <sup>(1)</sup>	January 1 through December 31. July 1 through June 30 for shoreline combined sewer discharge and other

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
		rainfall initiated data
2/Year	Closest January 1 or July 1 before or after permit effective date <sup>[1]</sup>	January 1 through June 30 July 1 through December 31
1/CSD Event	Beginning of combined sewer discharge event	Beginning of combined sewer discharge event through end of combined sewer discharge event

Footnote:

<sup>[1]</sup> Monitoring performed during the previous order term may be used to satisfy monitoring this Order requires. The Discharger is not expected to perform monitoring required by the Order prior to the effective date of this Order. Monitoring requirements of the previous order apply until the effective date of this Order.

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

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified” or DNQ. The estimated chemical concentration of the sample shall also be reported. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means the laboratory considers appropriate.
- c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected” or ND.
- d. The Discharger shall instruct laboratories to establish calibration standards so that the minimum level (ML) value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

**5. Compliance Determination.** Compliance with effluent limitations for pollutants listed in Ocean Plan Table 1 shall be determined using sample reporting protocols defined in Attachments A, D, E (MRP), F (Fact Sheet), and G. For purposes of reporting and administrative enforcement by U.S. EPA and the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported reporting level (RL).

**C. Discharge Monitoring Reports (DMRs)**

The Discharger shall electronically submit DMRs. If notification to stop electronic submittals is given, the Discharger shall submit a paper DMR. Paper DMRs shall be reported on official U.S. EPA pre-printed DMR forms (EPA Form 3320-1) or self-generated forms that follow the exact same format as EPA Form 3320-1. The Discharger shall sign and certify each DMR as Attachment D requires. The Discharger shall submit any paper DMR to one of the addresses listed below:

Standard Mail	FedEx/UPS/Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 <sup>th</sup> Floor Sacramento, CA 95814

**IX. MODIFICATIONS TO ATTACHMENT G**

This MRP modifies Attachment G as indicated below.

**A. Attachment G section V.C.1.c.2 is revised as follows.**

- 2) When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND), the Discharger shall compute the median in accordance with the following procedure:
  - i. 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.
  - ii. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

If a sample result, or calculated result from multiple sample results, is below the reporting limit, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a Pollutant Minimization Program, the Discharger shall not be deemed out of compliance.

**B. Attachment G section V.C.1.c.3 is revised as follows.**

- 3) Dioxin-TEQ (TCDD equivalents) Reporting: The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the quantifiable limit

**Commented [A71]:**  
 SFPUC requests clarification that the definition below supersedes the definition in Attachment G. This description matches the NPDES permit for North San Mateo County Sanitation District (Order No. R2-2012-0013) as well as the language in Attachment A.

(reporting level), the method detection limit, and the measured concentration. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels (ML) to zero. The Discharger shall calculate and report TCDD equivalents using the following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A. This approach is based on 40 C.F.R. part 132, Appendix F, Procedure 4, and TEFs the World Health Organization published in 2005.

$$\text{TCDD equivalents} = \sum (C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where:  $C_x$  = measured or estimated concentration of congener  $x$   
 $\text{TEF}_x$  = toxicity equivalency factor for congener  $x$   
 $\text{BEF}_x$  = bioaccumulation equivalency factor for congener  $x$

**Table A**  
Minimum Levels, Toxicity Equivalency Factors,  
and Bioaccumulation Equivalency Factors

<u>Dioxin or Furan Congener</u>	<u>Minimum Level (pg/L)</u>	<u>1998 Toxicity Equivalency Factor (TEF)</u>	<u>Bioaccumulation Equivalency Factor (BEF)</u>
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0003	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.03	0.2
2,3,4,7,8-PeCDF	50	0.3	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0003	0.02

**BC. Attachment G sections V.C.1.f and V.C.1.g are revised as follows, and section V.C.1.h (Reporting data in electronic format) is deleted.**

f. Annual self monitoring report requirements

By the date specified in the MRP, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the following:

- 1) Annual compliance summary table of treatment plant performance, including documentation of any blending events (this summary table is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);
- 2) Comprehensive discussion of treatment plant performance and compliance with the permit (This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment, or disposal practices.);
- 3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater (this item is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);
- 4) List of approved analyses, including the following:
  - (i) List of analyses for which the Discharger is certified;
  - (ii) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory shall not be submitted but be retained onsite); and
  - (iii) List of "waived" analyses, as approved;
- 5) Plan view drawing or map showing the Discharger's facility, flow routing, and sampling and observation station locations;
- 6) Results of annual facility inspection to verify that all elements of the SWPP Plan are accurate and up to date (only required if the Discharger does not route all stormwater to the headworks of its wastewater treatment plant); and
- 7) Results of facility report reviews (The Discharger shall regularly review, revise, and update, as necessary, the O&M Manual, the Contingency Plan,

the Spill Prevention Plan, and Wastewater Facilities Status Report so that these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall include, in each Annual Report, a description or summary of review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure they are up-to-date.)

g. Report submittal

The Discharger shall submit SMRs addressed as follows, unless the Discharger submits SMRs electronically to CIWQS:

California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
Attn: NPDES Wastewater Division

h. Reporting data in electronic format – *Deleted*

**DE. Attachment G sections V.E.2, V.E.2.a, and V.E.2.c are revised as follows, and sections V.E.2.b (24-hour Certification) and V.E.2.d (Communication Protocol) are deleted.**

2. Unauthorized Discharges from Municipal Wastewater Treatment Plants<sup>1</sup>

The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and supersede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008.

a. Two (2)-Hour Notification

For any unauthorized discharges that enter a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the California Emergency Management Agency (CalEMA, currently 800-852-7550), the local health officers or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board. Timely notification by the Discharger to CalEMA also satisfies notification to the Regional Water Board. Notification shall include the following:

- 1) Incident description and cause;

<sup>1</sup> California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

- 2) Location of threatened or involved waterway(s) or storm drains;
  - 3) Date and time the unauthorized discharge started;
  - 4) Estimated quantity and duration of the unauthorized discharge (to the extent known), and the estimated amount recovered;
  - 5) Level of treatment prior to discharge (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on); and
  - 6) Identity of the person reporting the unauthorized discharge.
- b. 24-hour Certification – *Deleted*
- c. 5-day Written Report
- Within five business days, the Discharger shall submit a written report that includes, in addition to the information required above, the following:
- 1) Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;
  - 2) Efforts implemented to minimize public exposure to the unauthorized discharge;
  - 3) Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of water) and the extent of sampling if conducted;
  - 4) Corrective measures taken to minimize the impact of the unauthorized discharge;
  - 5) Measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future;
  - 6) Summary of Spill Prevention Plan or O&M Manual modifications to be made, if necessary, to minimize the chances of future unauthorized discharges; and
  - 7) Quantity and duration of the unauthorized discharge, and the amount recovered.
- d. Communication Protocol – *Deleted*



**ED.** For the pollutants below, the following minimum levels supersede those in Attachment G, Table C:

**Table E-12. Minimum Levels**

CTR No.	Pollutant	Minimum Level (µg/l)
4	Cadmium	0.5
5b	Chromium (VI)	5
6	Copper	2
11	Silver	0.2
76	1,3-Dichlorobenzene	2 <sup>[1]</sup>
77	1,4-Dichlorobenzene	2 <sup>[1]</sup>
60	Benzo(a)Anthracene or 1,2 Benzanthracene	2

Footnote:

<sup>[1]</sup> The minimum level for 1,3-dichlorobenzene or 1,4-dichlorobenzene as semivolatile chemicals shall be 1 µg/l.

**X. MODIFICATIONS TO ATTACHMENT H**

This MRP modifies Attachment H as indicated below.

**A. Attachment H, Appendix H-3, Signature Requirements for Pretreatment Annual and Semiannual Reports, is revised as follows.**

The pretreatment annual and semiannual reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for the overall operation of the Discharger (POTW - 40 C.F.R. 403.12[m]). Signed copies of the reports shall be submitted to the State Water Board and the Regional Water Board through the electronic self-monitoring report (eSMR) module of the California Integrated Water Quality System (CIWQS). Signed copies of the reports shall also be submitted electronically to U.S. EPA at R9Pretreatment@epa.gov or as instructed otherwise.

## ATTACHMENT F – FACT SHEET

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**ATTACHMENT F – FACT SHEET**

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. Section II.B of this Order incorporates this Fact Sheet as findings supporting the issuance of this Order.

**I. PERMIT INFORMATION**

The following table summarizes administrative information related to the facility.

**Table F-1. Facility Information**

<b>WDID</b>	2 386009001
<b>CIWQS Place ID</b>	256498
<b>Discharger</b>	City and County of San Francisco
<b>Facility Name</b>	Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities, and Wastewater Collection System
<b>Facility Address</b>	3500 Great Highway San Francisco, CA 94132 San Francisco County
<b>Facility Contact, Title and Phone</b>	Jeff Yee, Operations Superintendent, Wastewater Enterprise (415) 242-2225
<b>Authorized Person to Sign and Submit Reports</b>	Tommy Moala, Assistant General Manager, Wastewater Enterprise (415) 554-2465
<b>Mailing Address</b>	San Francisco Public Utilities Commission/Wastewater Enterprise 525 Golden Gate Ave., 13th Floor, San Francisco, CA 94102
<b>Billing Address</b>	Same
<b>Facility Type</b>	Publicly Owned Treatment Works (POTW)/Wet Weather Facility
<b>Major or Minor Facility</b>	Major
<b>Threat to Water Quality</b>	2
<b>Complexity</b>	A
<b>Pretreatment Program</b>	Y
<b>Recycling Requirements</b>	<del>Not Applicable</del> To be determined for the Westside Recycled Water Project.
<b>Facility Permitted Flow</b>	43 million gallons per day (MGD), <del>average-maximum</del> dry weather flow
<b>Facility Design Flow</b>	Plant 43 MGD, <del>average-maximum</del> dry weather design flow (providing secondary treatment) 65 MGD maximum wet weather design flow (providing secondary treatment for 43 MGD and primary treatment for an additional 22 MGD) <u>Westside Wet Weather Facilities</u> Collection system flows greater than 65 MGD and less than 175 MGD receive the equivalent of wet weather primary treatment in the Westside Wet Weather Facilities (storage/transports) and are discharged at the Southwest Ocean Outfall (Discharge Point No. 001). Flows greater than 175 MGD receive the equivalent of wet weather primary treatment in the Westside Wet Weather Facilities and are discharged at authorized combined sewer overflow discharge (CSD) points.
<b>Watershed</b>	San Mateo Coastal Basin, San Francisco Bay Central Basin
<b>Receiving Water</b>	Pacific Ocean
<b>Receiving Water Type</b>	Marine

- A.** The City and County of San Francisco (hereinafter Discharger) owns and operates the Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities, and wastewater collection system (collectively, the Facility). The Facility discharges wastewater to the Pacific Ocean, a water of the United States.

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.** The Discharger is regulated pursuant to National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037681. It was previously subject to Order No. R2-2009-0062 (previous order), which was adopted on August 12, 2009, and expired on September 30, 2014. The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on April 3, 2014, and the previous order was administratively extended by operation of law. Order No. R2-2010-0054 amended the previous order to update the Regional Standard Provisions (Attachment G); Order No. R2-2011-0009 amended the previous order to update the pretreatment program requirements (Attachment H).
- C.** When applicable, State law requires dischargers to file a petition with the State Water Resources Control Board (State Water Board), Division of Water Rights, and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce such requirements under Water Code 1211. This is not an NPDES permit requirement.

## II. FACILITY DESCRIPTION

### A. Description of Wastewater and Biosolids Treatment and Controls

- 1. Location and Service Area.** The plant is located at 3500 Great Highway, San Francisco. It provides primary and secondary wastewater treatment for western San Francisco and a small portion of Daly City. The service area population is 242,400. The wet weather facilities are located primarily nearshore, throughout the western side of San Francisco. They provide equivalent-to-primary treatment during wet weather. Attachment B provides a map of the area around the Facility.
- 2. Collection System.** The collection system is primarily a combined sewer system that conveys wastewater and stormwater to the plant and wet weather facilities. It consists of approximately 250 miles of pipe, one major pump station (Westside Pump Station), and ~~five~~ <sup>six</sup> minor pump stations (four all-weather pump stations, Westside, Sea Cliff #1, Sea Cliff #2, and Pine Lake, and two wet weather pump stations, Sea Cliff #3 and the Zoo Wet Weather Lift Station). Separate sanitary and storm drains serve isolated areas, including the areas surrounding Lake Merced, Golden Gate Park, and the Presidio. The Facility also receives wastewater from a small portion of Daly City, which the North San Mateo County Sanitation District owns and operates. For the purposes of this Order, the Facility does not include any portion of the collection system in Daly City or any other location outside the City of San Francisco.

**3. Wastewater Treatment.** The Discharger operates the plant and wet weather facilities to maximize treatment. Attachment C provides Facility schematics.

- a. Oceanside Plant.** During dry weather, the plant provides secondary treatment. The treatment processes include coarse screening at the Westside Pump Station, fine screening and grit removal at the plant headworks, primary sedimentation, activated sludge treatment by a high-purity ~~pure~~ oxygen process, and secondary clarification. The effluent is not disinfected.

The plant has a maximum secondary treatment ~~dry-weather~~ design capacity of 43-million gallons per day (MGD). During wet weather, it can provide primary treatment for an additional 22 MGD. The primary-treated and secondary-treated effluent are commingled prior to discharge, for a total treatment capacity of 65 MGD. Plant effluent flows by gravity through Discharge Point No. 001.

**Commented [A72]:**  
SFPUC suggests changes shown for accuracy.

- b. Westside Wet Weather Facilities.** The wet weather facilities include three large transport/storage structures: (1) the Westside Transport, a 49.3-million-gallon box-like structure located beneath the Great Highway; (2) the Richmond Transport, a 12.0-million-gallon tunnel located to the north; and (3) the Lake Merced Transport, a 10.0-million-gallon tunnel located to the south. The combined storage capacity of these transport/storage structures is 71.3 million gallons. The transport/storage structures provide flow equalization and convey combined flows to the Westside Pump Station, which pumps wastewater to the plant for treatment.

Facility operations depend on rainfall, forecasts, and storage conditions in the transport/storage structures. Flows above the 65-MGD treatment capacity of the Plant are stored in the ~~wet weather facilities~~ transport/storage structures, which provide the equivalent of wet weather primary treatment through solids settling, skimming of floatable solids, and screening at pump stations. In addition to the pumps that transfer up to 65 MGD of flow from the transport/storage structures to the Oceanside Plant, the Westside Pump Station also has wet weather pumps that pump “decant” flow from the Westside Transport through Discharge Point No. 001 during wet weather. These flows are then pumped via the Westside Pump Station to Discharge Point No. 001 until the pumping capacity of the Westside Pump Station capacity is exceeded to the outfall is reached at 175 MGD. -The design capacity of the wet weather pumps at the Westside Pump Station is 110 MGD. The Westside Pump Station has a capacity of between 165 and 175 MGD, depending on tidal height.

**Commented [A73]:**  
SFPUC suggests changes to this paragraph in order to clearly describe decant (pumping of flow from the Westside Transport through Discharge Point No. 001 in wet weather).

Flows exceeding the combined capacities of the Plant and the Westside Pump Station wet weather pumps above 175 MGD also receive the equivalent of wet weather primary treatment in the storage/transport structures, but discharge passively at seven nearshore combined sewer discharge outfalls. Of these, four are directly connected to the transport/storage structures. Three ~~Two~~ are associated with sumps at pump stations and one is an associated vault connected to a pump station in the northern portion of the service area; sump discharges from these pump stations occur when the pump station

**Commented [A74]:**  
SFPUC suggests the changes shown for clarity and accuracy.

pumping capacity is exceeded. The drainage areas associated with these pumps stations are relatively small, and their discharge volumes are smaller than those from the transport/storage structure outfalls.

After wet weather events, stored wastewater and accumulated solids remaining in the transport/storage structures are sent to the plant for treatment.

**4. Biosolids Management.** Sludge from the primary and secondary clarification operations is processed using anaerobic digestion. Primary sludge, waste activated sludge, and secondary scum are mixed and co-thickened using gravity belt thickeners prior to being fed to the anaerobic digestion system with the primary scum and imported grease trap waste. Digested biosolids are dewatered using screw presses and stored in hoppers prior to being loaded into covered trucks for transport. During winter, biosolids are hauled to a landfill for storage and eventual beneficial use (i.e., interim cover, final cover, or landfill building material). During the dry season, biosolids are hauled to Sonoma or Solano County for agricultural land application. ~~In addition, a portion is sent to a compost facility in Merced County, where it is blended with green waste to create Class A compost.~~ The Discharger is currently converting the existing mesophilic digestion process into a thermophilic digestion process. Following the conversion, all biosolids will be Class A biosolids.

**Commented [A75]:**  
Biosolids are no longer sent to Merced County.

**5. Westside Recycled Water Project.** A new recycled water treatment plant is proposed to be constructed at the plant site during this Order's term. Secondary-treated effluent would be treated further with membrane filtration, reverse osmosis, and ultraviolet (UV) light disinfection to produce recycled water. ~~Brine~~ The "reject water" (concentrate) from the reverse osmosis process will be combined with plant effluent prior to ~~compliance monitoring discharge~~ at Discharge Point No. 001. The project would produce and deliver an annual average flow of 1.6 MGD of recycled water with peak deliveries of up to 5 MGD during summer. Water recycling operations would not increase the mass of pollutants discharged at Discharge Point No. 001, but could increase the concentration of pollutants discharged. The requirements of this Order account for this potential water recycling project.

**Commented [A76]:**  
SFPUC prefers the term "concentrate" over "brine". Because the Plant influent is low in TDS, the reject water from the RO process will not be especially salty. It is appropriate to call it "concentrate" rather than "brine".

## B. Discharge Points and Receiving Waters

- 1. Dry Weather Discharges.** During dry weather, all flow receives secondary treatment and is discharged by gravity to the Pacific Ocean through a deep water outfall (Discharge Point No. 001). The 4.5-mile-long (3.9 nautical mile-long) outfall terminates in a diffuser that begins approximately 3.8 miles (3.3 nautical miles) from shore, at a depth of 78 feet below mean lower low water (MLLW). The diffuser has 85 risers spread along a 3,000-foot outfall pipe. Each riser has eight ports. The outfall is beyond the territorial waters of the State of California, which end three nautical miles from the low water mark at shore.
- 2. Wet Weather Discharges.** During wet weather, secondary-treated effluent, primary-treated effluent, and effluent from the wet weather facilities are discharged through Discharge Point No. 001. However, when the ~~175 MGD~~ Westside Pump Station's capacity to pump effluent to the deep-water outfall is exceeded, combined wastewater and stormwater discharge passively to the Pacific Ocean from the transport/storage structures through Discharge Point Nos. CSD-001 through CSD-004 and from certain pump station sumps through Discharge

**Commented [A77]:**  
The concentrate will merge with the plant effluent at the junction box under the Great Highway. Access to this location is difficult. Please see MRP for suggested changes to monitoring of the plant effluent and the concentrate.

Point Nos. CSD-005 through CSD-007. These combined sewer discharge outfalls are located within the territorial waters of the State of California (see Attachment B).

**C. Summary of Previous Requirements and Monitoring Data**

Effluent limitations contained in the previous order for discharges from Discharge Point No. 001 and representative monitoring data from the term of the previous order are presented below:

**Table F-2. Previous Dry Weather Effluent Limitations and Monitoring Data**

Parameter	Units	Effluent Limitations				Monitoring Data (10/2009 – 5/2014)			
		6-Month Median	Monthly Average	Weekly Average	Daily Max.	Highest 6-Month Median	Highest Monthly Average	Highest Weekly Average	Highest Daily Max.
Biochemical Oxygen Demand, 5-day @ 20°C (BOD <sub>5</sub> )	mg/L	--	30	45	--	--	29	35	--
Total Suspended Solids (TSS)	mg/L	--	30	45	--	--	18	26	--
pH	s.u.	Within a range of 6.0 – 9.0				Within a range of 6.0 – 8.2			
Chronic Toxicity	TUc	--	--	--	150	--	--	--	149
Mercury	µg/L	5.9	--	--	24	0.0093	--	--	0.0709

Unit Abbreviations:

- mg/L = milligrams per liter
- µg/L = micrograms per liter
- s.u. = standard units
- TUc = chronic toxicity units, equal to 100/NOEL, where NOEL = IC<sub>25</sub>, EC<sub>25</sub>, or NOEC

**D. Summary of Combined Sewer Discharge Events**

The following tables summarize combined sewer discharge events over a 17-year period and estimated average combined sewer discharge event durations for wet season 2012-2013, a year with a typical number of discrete combined sewer discharge events.

**Table F-3. Frequency of Combined Sewer Discharge Events**

Year	Rainfall (inches)	Number of Combined Sewer Discharge Events							Number of Discrete Events
		Lake Merced CSD-001	Vicente CSD-002	Lincoln CSD-003	Mile Rock CSD-004	Sea Cliff #1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff #2 CSD-007	
1997-1998	41.1	10	13	13	N/A	2	N/A	10	14
1998-1999	18.9	6	7	7	N/A	0	N/A	0	7
1999-2000	23.2	5	6	6	N/A	1	N/A	1	7
2000-2001	13.8	2	0	0	N/A	2	N/A	2	3
2001-2002	24.4	6	6	6	N/A	1	N/A	1	6
2002-2003	22.3	5	6	6	N/A	1	N/A	7	9
2003-2004	18.8	4	4	4	N/A	2	N/A	8	8
2004-2005	26.2	7	7	6	N/A	5	N/A	8	12



Year	Rainfall (inches)	Number of Combined Sewer Discharge Events							Number of Discrete Events
		Lake Merced CSD-001	Vicente CSD-002	Lincoln CSD-003	Mile Rock CSD-004	Sea Cliff #1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff #2 CSD-007	
2005-2006	31.8	11	9	9	N/A	3	N/A	9	13
2006-2007	14.8	2	1	1	N/A	0	N/A	2	3
2007-2008	18.4	4	4	4	N/A	0	N/A	1	4
2008-2009	18.3	4	4	4	N/A	0	N/A	1	4
2009-2010	25.8	4	3	3	N/A	6	0	7	7
2010-2011	30.1	5	4	4	N/A	0	0	3	7
2011-2012	17.6	3	3	2	N/A	2	0	3	6
2012-2013	19.7	6	6	6	N/A	3	1	3	8
2013-2014	12.0	3	2	2	N/A	0	1	3	5
<b>Average</b>	<b>22.8</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>N/A</b> <sup>[1]</sup>	<b>2</b>	<b>1</b>	<b>4</b>	<b>7</b>
<b>Design Criterion (Long Term Average Goal):</b>									<b>8</b>

**Footnote:**

<sup>[1]</sup> The previous order did not require monitoring at Discharge Point No. CSD-004 because access entails significant personnel safety issues.

**Table F-4. Combined Sewer Discharges — July 1, 2012, to June 30, 2013**

	Lake Merced CSD-001	Vicente St. CSD-002	Lincoln Way CSD-003	Mile Rock CSD-004	Sea Cliff #1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff #2 CSD-007
Days with Rainfall	53	53	53	N/A <sup>[1]</sup>	53	53	53
Discharge Events	6	6	6 <sup>[2]</sup>	N/A <sup>[1]</sup>	3	1	3
Average Duration (hours)	2.39	3.28	N/A <sup>[2]</sup>	N/A <sup>[1]</sup>	0.08	0.58	0.28
Average Volume/Event (million gallons)	2.75	3.16	N/A <sup>[2]</sup>	N/A <sup>[1]</sup>	0.002	0.08	0.01

**Footnotes:**

<sup>[1]</sup> The previous order did not require monitoring at Discharge Point No. CSD-004 because access entails significant personnel safety issues.

<sup>[2]</sup> Telemetry equipment for Discharge Point No. CSD-003 was not operational in December 2012. Due to similar weir heights and positions within the system, discharges likely occur simultaneously at Discharge Point Nos. CSD-002 and CSD-003. As such, about six discharges likely occurred from Discharge Point No. CSD-003 between July 1, 2012, and June 30, 2013.

**E. Compliance Summary**

The Discharger did not violate any effluent limitations during the previous order term. The Discharger did violate Discharge Prohibitions III.A (discharge other than as described in this Order is prohibited) and III.C (treatment bypass is prohibited) of the previous order twice during the previous order term, as summarized in the table below. Regional Water Board staff is investigating enforcement options in response to these violations.

**Table F-5. Summary of Discharge Prohibition Violations**

Violation Date	Violation Description
7/21/2014	Approximately 5.3 million gallons of primary-treated effluent were discharged to the Pacific Ocean through Discharge Point No. 001 during dry weather because an operator <u>inadvertently</u> bypassed secondary treatment. The unauthorized discharge began at approximately 11:04 a.m. and lasted approximately 14 hours.

Violation Date	Violation Description
8/27/2014	Approximately 21,000 gallons of primary-treated effluent were discharged to the Pacific Ocean through Discharge Point No. 001 during dry weather because an operator inadvertently bypassed secondary treatment. The unauthorized discharge began at approximately 2:09 a.m. and lasted approximately three minutes.

**F. Planned Changes**

The Discharger plans to complete the following projects during this Order’s term. These changes are for informational purposes only and are not requirements of this Order except to the extent that they pertain to increasing or ensuring reliability of treatment or wastewater collection systems. Their inclusion here does not imply Regional Water Board authorization. The Discharger must obtain any necessary permits or permit modifications to implement the changes.

- 1. Westside Recycled Water Project.** The Discharger proposes to construct a recycled water treatment facility to treat the plant’s secondary-treated effluent to Title 22 tertiary treatment standards for distribution in the western portion of San Francisco. The brine concentrate from the treatment process would be discharged to the Pacific Ocean through Discharge Point No. 001. The project is expected to be completed in winter 2018 or spring 2019.

The recycled water would be delivered through a system of pipelines, pump stations, storage tanks, and reservoirs. Deliveries are planned for Golden Gate Park (including the Panhandle), Lincoln Park Golf Course, and the Presidio (Golf Course, National Cemetery, and other landscaped areas). Recycled water could also be used to fill Golden Gate Park lakes and flush toilets at the California Academy of Sciences. Distribution pipelines will be located mostly under streets or in Golden Gate Park.

- 2. Digesters Sequencing Batch Reactor Temperature Phased Anaerobic Digestion Conversion and Facility Improvements.** The Discharger is converting the existing Class B mesophilic digestion process into a thermophilic digestion process for Class A biosolids production. This project, to be completed in early 2015, is expected to extend the service life of the existing digesters. The project involves reconfiguring the existing single-stage anaerobic flow-through digestion process to a temperature-phased anaerobic digestion process. The project includes replacing steam boilers, installing closed-cell foam and tensioned fabric membrane, and installing scum pumps and a screening unit. Class A biosolids standards will be met on a “time and temperature” basis as set forth by 40 C.F.R. part 503.

- 3. Brown Grease to Biodiesel Demonstration Project.** In 2009, the Discharger began the Brown Grease to Biofuel Demonstration Project, which is the first large-scale brown grease recycling project in the United States. The project’s purpose was to explore the feasibility of recovering “brown grease” suitable for biofuel production from restaurant grease trap waste, and evaluate benefits and impacts of sending the grease trap waste unsuitable for biofuel to the anaerobic digesters as feedstock for gas production. Sending grease trap waste to the digesters had an overall beneficial impact, and the Facility continues to receive grease trap waste and convey trap waste to the digesters. Various improvements to the grease trap waste receiving station are planned, as summarized below. The biodiesel conversion portion of the

**Commented [A78]:**  
 SFPUC prefers the term “concentrate” over “brine”. Because the Plant influent is low in TDS, the reject water from the RO process will not be especially salty. It is appropriate to call it “concentrate” rather than “brine”.

**Commented [A79]:**  
 SFPUC requests that this sentence be removed. It is possible that alternative methods will be used to show compliance with the standards.

**Commented [A80]:**  
 SFPUC requests that all “Planned Changes” projects be removed except the recycled water project and the digesters projects as these two projects are the only ones that will alter the effluent.

project was suspended in 2013 to allow for equipment rehabilitation, and the Discharger is currently evaluating whether to further explore the brown grease recovery portion of the project.

- ~~4. **Improvements to Grease Trap Waste Receiving Station.** This project will implement structural and process improvements to the existing grease trap waste receiving station to allow more practical Facility operation and maintenance. The project includes installing weatherproof lighting to allow for night operation, automating a transfer pump, the development of an odor control system, and various process improvements. New equipment for improving facility processes includes an additional tank heating system and new pumps for each of the main facility tanks. The project is expected to be completed in late 2016. In parallel with this work, the Discharger is developing standard operating procedures (SOPs).~~
- ~~5. **Digester Gas Utilization Upgrade.** The Discharger has successfully piloted co-digestion of fats, oils, and grease (FOG) and food waste to increase the production of biogas. This project will increase the generation and use of biogas at the plant by replacing the currently undersized gas holding system, the twenty year old gas condition system, and the co-generation units. This project is expected to be completed in 2020.~~
- ~~6. **Solid Retention Time Control of Aeration System.** This project will enhance process control. Design of the solid retention time control for the plant's aeration system began in 2012 and is anticipated to be complete in early 2015. The project will involve installing several total solids analyzers, a mixed liquor analyzer, new waste activated sludge pumps, and solid retention time control software.~~
- ~~7. **Oxygen/Aeration System Replacement.** The existing secondary processes use a high purity oxygen system, components of which are nearing the end of their useful lives and require frequent maintenance. This project involves planning, design, environmental review, and construction of a new aeration system by 2016.~~
- ~~8. **Westside Pump Station Reliability Improvements.** The Westside Pump Station conveys wet weather flows from the transport/storage structures to Discharge Point No. 001. This project will provide power source redundancy, improve odor controls, replace existing grit removal screens, and increase the pump station capacity to reduce combined sewer discharges. This project is expected to be completed in 2021.~~
- ~~9. **Westside Pump Station Redundant Force Main Improvements.** This project includes construction of a new force main connecting the Westside Pump Station to the plant to provide dry weather redundancy by 2021.~~

### III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

#### A. Legal Authorities

This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA, and Water Code chapter 5.5,

division 7 (commencing with § 13370). It serves as an NPDES permit for point source discharges from this facility to surface waters.

**B. California Environmental Quality Act**

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100).

**C. State and Federal Laws, Regulations, Policies, and Plans**

**1. Water Quality Control Plan.** The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) is the Regional Water Board’s master water quality control planning document. It was adopted by the Regional Water Board, and approved by the State Water Resources Control Board (State Water Board), the Office of Administrative Law, and U.S. EPA. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes implementation programs to achieve water quality objectives. The Basin Plan incorporates by reference the provisions of the Ocean Plan, described below. Requirements of this Order implement the Basin Plan. Beneficial uses for the Pacific Ocean as described in the Basin Plan are summarized below.

**Table F-6. Basin Plan Beneficial Uses**

Receiving Water	Beneficial Uses
Pacific Ocean	Industrial Service Supply Ocean, Commercial, and Sport Fishing Shellfish Harvesting Marine Habitat Fish Migration Preservation of Rare and Endangered Species Fish Spawning Wildlife Habitat Water Contact Recreation Noncontact Water Recreation Navigation

**2. California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and has amended it several times, most recently in 2012. The most recent changes became effective on August 19, 2013. The Ocean Plan applies, in its entirety, to point source discharges to the territorial waters of the State as defined by California law to the extent that these waters are outside enclosed bays, estuaries, and coastal lagoons. The Ocean Plan establishes water quality objectives and a program of implementation to protect beneficial uses. Requirements of this Order implement the Ocean Plan. Beneficial uses for the Pacific Ocean as described in the Ocean Plan are summarized below.

**Table F-7. Ocean Plan Beneficial Uses**

Receiving Water	Beneficial Uses
Pacific Ocean	Industrial Water Supply Water Contact Recreation Non-contact Recreation, including Aesthetic Enjoyment Navigation Commercial and Sport Fishing Mariculture Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS) Rare and Endangered Species Marine Habitat Fish Spawning Shellfish Harvesting

**a. Ocean Plan Exception.** State Water Board Order No. WQ 79-16 provides a wet weather exception to certain Ocean Plan water quality objectives, specifically the bacterial characteristics set forth in the 1978 Ocean Plan (i.e., total coliform and fecal coliform objectives). The exception is subject to following conditions:

- i.** Beaches and shellfish harvesting areas potentially affected by combined sewer discharges must be posted. (Provision VI.C.5.b.viii of this Order requires beach posting. Shellfish are not harvested for human consumption in areas adjacent to the outfalls.)
- ii.** To the greatest extent practical, the Discharger must design, construct, and operate wet weather facilities to comply with the remaining Ocean Plan water quality objectives. (The Discharger designed and constructed wet weather facilities to comply with the Ocean Plan water quality objectives as required by State Water Board Order No. WQ 79-16; Provision VI.C.5.a of this Order ensures continued compliance with this condition.)
- iii.** A long-term average of eight combined sewer discharge events per year is allowed. The Discharger must contain all other stormwater runoff. (Provision VI.C.5.c.iv[a] of this Order ensures compliance with this condition.)

**b. Application of State Authorities within Federal Waters.** Discharge Point No. 001 is located 3.4 to 3.6 nautical miles offshore in federal waters. The territorial waters of the State end three nautical miles from shore. The Ocean Plan (Appendix 1, Ocean Waters) states, "If a discharge outside the territorial waters of the State could affect the quality of the waters of the State, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters." For the reasons set forth below, the Regional Water Board finds that the discharge at Discharge Point No. 001 could not affect the quality of the waters of the State during dry weather. During wet weather, the Ocean Plan defers to the *Combined Sewer Overflow Control Policy*. Therefore, this Order does not regulate the discharge at Discharge Point No. 001 directly through the Water Board's

**Commented [A81]:**  
 Additional language suggested to indicate that the wet weather facilities have already been constructed.

**Commented [A82]:**  
 Provision VI.C.5.a relates only the Combined Sewer Operations and Maintenance Plan. It seems appropriate to refer here to the entirety of the Combined Sewer System Controls (including Nine Minimum Controls and the Long Term Control Plan)

**Commented [A83]:**  
 Provision VI.C.5.c.iv[a] does not seem to exist. Suggest reference to Provision VI.C.5.c.i (Combined Sewer System Controls – Long Term Control Plan – Operational Plan)

Ocean Plan authorities. MRP section VI.C requires a special study to update the data upon which this finding is based.

- i. Receiving Water Monitoring.** The Discharger has monitored the receiving waters since the 1970s, before and after the installation of the deep-water outfall (Discharge Point No. 001) in 1986. The Discharger has collected data on chemical and physical sediment quality, aquatic biological community structure, and physical anomalies and bioaccumulation of contaminants in organism tissues near the outfall and at reference locations (*Southwest Ocean Outfall Regional Monitoring Program, Sixteen-Year Summary Report 1997 – 2012*, April 2014). Since the discharge does not appear to affect water quality in the vicinity of the outfall, there is no evidence that it could affect the quality of State waters.
  - ii. Dilution.** This Order uses a minimum initial dilution of effluent from Discharge Point No. 001 of ~~372:48:1~~ (parts seawater per part wastewater) based on a dilution modeling study conducted in 2012 – 2013 (*Southwest Ocean Outfall Dilution Modeling Report, Final Report*, April 2014). Such highly diluted effluent from the deep-water outfall would likely not affect the quality of State waters.
  - iii. Ocean Currents.** Ocean currents at the deep-water outfall typically move parallel to the coast, not toward State waters (*Assessment of Effects on California State Waters from the Oceanside Southeast Ocean Outfall*, September 26, 2008).
  - iv. Effluent Toxicity Monitoring.** The Discharger routinely monitors chronic toxicity in the effluent to ensure that it complies with effluent limitations. This monitoring has never indicated a violation of toxicity limitations at the outfall. Therefore, the discharge is not anticipated to cause toxicity in State waters. Results from receiving water sediment toxicity testing in 2000 are consistent with this conclusion (*Assessment of Effects on California State Waters from the Oceanside Southeast Ocean Outfall*, September 26, 2008).
  - v. Bacteria Monitoring.** In the 1980s, the Discharger completed an extensive study to determine how discharging primary-treated effluent from the deep-water outfall was affecting receiving water bacteria levels (*Wastefield Transport and Bacteriological Compliance Studies of the San Francisco Ocean Outfall CH2M Hill*, March 1989). The Discharger now treats its wastewater to secondary treatment standards during dry weather. Data from that study representing primary treatment can be used to estimate the potential effects of discharging secondary-treated effluent (Regional Water Board staff memorandum, October 10, 2008). By doing so, estimated bacteria levels in federal waters appear to be below Ocean Plan water quality objectives. Therefore, the deep-water discharge could not affect bacteria levels in State waters.
- 3. Determination of Unreasonable Degradation of the Marine Environment.** Discharges from Discharge Point No. 001 are to waters of the United States beyond the territorial waters of the State of California. Federal regulations at 40 C.F.R. section 125.122 require U.S. EPA to determine whether the discharge will cause unreasonable degradation of the marine environment. U.S. EPA has determined that no unreasonable degradation of the marine

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Please see other comments regarding dilution.

environment will occur. This finding is based on U.S. EPA's reliance on the Ocean Plan to prepare this Order, with specific exceptions as summarized below (U.S. EPA staff memorandum, 2015).

- a. **Chronic Toxicity.** Based on 40 C.F.R. section 125.22(b), U.S. EPA conducted a reasonable potential analysis using Ocean Plan water quality objectives. A water quality-based effluent limitation is necessary for chronic toxicity because there is reasonable potential for chronic toxicity in the discharge to cause or contribute to an exceedance of water quality standards. (See Fact Sheet section XXX). This Order's chronic toxicity limitation incorporates the test of significant toxicity (TST) statistical approach. In some cases, the discharge in-stream waste concentrations to be used for chronic toxicity tests are based on a dilution factor that incorporates available information about ocean currents and their effects on the discharge. The Ocean Plan does not provide for consideration of such information. To address this, U.S. EPA has prepared a determination of no unreasonable degradation based 40 C.F.R. section 125.122(a) (U.S. EPA staff memorandum, 2015).
  - b. **Dioxins and Furans.** To evaluate reasonable potential for dioxins and furans, U.S. EPA used recently updated Toxicity Equivalency Factors (TEFs) published by the World Health Organization in 2005, as well as congener-specific Bioaccumulation Equivalency Factors (BEFs) used for the Great Lakes System. This approach incorporates recent scientific information for dioxins on a congener-specific basis, while continuing to use the Ocean Plan water quality objective for dioxin equivalents. To address this, U.S. EPA has prepared a determination of no unreasonable degradation based on 40 C.F.R. section 125.122(a) (U.S. EPA staff memorandum, 2015).
4. **Combined Sewer Overflow Control Policy.** U.S. EPA's *Combined Sewer Overflow Control Policy* (59 Fed. Reg. 18688-18698, April 19, 1994). The policy establishes a national approach for controlling combined sewer discharges and overflows, and calls for a two-phased process. During the first phase, dischargers operating combined sewer systems were required to implement Nine Minimum Controls, which were to constitute CWA technology-based requirements as applied to combined sewer systems (best conventional pollutant control technology [BCT] and best available control technology economically achievable [BAT]). Dischargers were also required to develop Long-Term Control Plans based on their financial capabilities. During the second phase, dischargers were required to implement the Long-Term Control Plans, thus providing a basis for demonstrating or presuming attainment of water quality objectives protective of beneficial uses. This Order requires the Discharger to continue operating its combined sewer system in accordance with the Nine Minimum Controls and its Long-Term Control Plan.
  5. **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution 68-16, "*Statement of Policy with Respect to Maintaining High Quality of Waters in California*," which is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The

**Commented [A85]:**  
Please see comments in Fact Sheet about reasonable potential for chronic toxicity.

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Please see other comments about dilution.



Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

6. **Anti-Backsliding Requirements.** CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
7. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544) or the California Endangered Species Act (Fish and Game Code §§ 2050 to 2097). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect beneficial uses, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all applicable Endangered Species Act requirements.

#### D. Impaired Water Bodies on CWA 303(d) List

In October 2011, U.S. EPA approved a revised list of impaired waters pursuant to CWA section 303(d), which requires identification of specific waters where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Where it has not done so already, the Regional Water Board plans to adopt Total Maximum Daily Loads (TMDLs) for waters on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for non-point sources, and are established to achieve the water quality standards for the impaired waters. Baker Beach is listed as impaired for indicator bacteria, specifically at the mouth of Lobos Creek. Future water quality-based effluent limitations will be based on TMDL wasteload allocations.

#### E. Federal Permit Reissuance Contingency

The Discharger's federal permit renewal is contingent upon determination by the U.S. Fish and Wildlife Service and NOAA National Marine Fisheries Service that the proposed discharge is consistent with the federal Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.) U.S. EPA has determined that issuance of this Order ~~may affect,~~ but is not likely to adversely affect species listed under the federal Endangered Species Act and is requesting the Services' concurrence with this determination. The California Coastal Commission has indicated that it is unnecessary to obtain a consistency certification pursuant to the Coastal Zone Management Act (16 U.S.C. § 1451 et seq.) for the issuance of a federal NPDES permit containing secondary treatment standards.

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See comments on page 4 of the main body of the permit.

### IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES



permits. There are two principal bases for effluent limitations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters.

## A. Discharge Prohibitions

### 1. Prohibitions in this Order

- a. **Discharge Prohibition III.A** (Discharge other than as described in this Order is prohibited). This prohibition is based on 40 C.F.R. section 122.21(a) and Water Code section 13260, which require filing an application and Report of Waste Discharge before a discharge can occur. Discharges not described in the application and Report of Waste Discharge, and subsequently in this Order, are prohibited.
- b. **Discharge Prohibition III.B** (Discharge at Discharge Point No. 001 without minimum initial dilution of ~~372:1~~1 is prohibited). The requirements in this Order are based on a nominal dilution ratio of at least ~~372:1~~1 (parts seawater per part wastewater). Therefore, this prohibition is necessary to ensure that the assumptions used to derive the dilution credit remain appropriate and the resulting requirements remain protective of water quality.
- c. **Discharge Prohibition III.C** (Treatment bypass is prohibited). This Order prohibits bypasses except in accordance with the *Combined Sewer Overflow Control Policy* during wet weather, as defined in Attachment A, or in accordance with 40 C.F.R. section 122.41(m) (see Attachment D section I.G.). NPDES regulations at 40 C.F.R. section 122.41(m)(4) prohibit bypasses except in limited circumstances. Discharges in accordance with the *Combined Sewer Overflow Control Policy* are not considered bypasses.
- d. **Discharge Prohibition III.D** (Discharge other than at Discharge Point No. 001 is prohibited, except during wet weather, when discharge at Discharge Point Nos. CSD-001 through CSD-007 is authorized). This prohibition ensures that, if combined sewer discharges occur, they only occur during wet weather and at specified locations in accordance with the *Combined Sewer Overflow Control Policy*.
- e. **Discharge Prohibition III.E** (Average dry weather effluent flow above 43 MGD is prohibited). This Order prohibits an average dry weather effluent flow greater than 43 MGD. This prohibition is based on the plant's design treatment capacity (i.e., its historic and tested reliability). Exceeding the average dry weather flow design capacity could result in lowering the reliability of achieving compliance with water quality requirements.
- f. **Discharge Prohibition III.F** (Sewer overflows are prohibited). The CWA prohibits the discharge of wastewater to surface waters except as authorized under an NPDES permit. Publicly owned treatment works must achieve secondary treatment at a minimum and any more stringent limitations necessary to meet water quality standards (33 U.S.C.

Commented [A88]:  
See other comments regarding the dilution factor.

§ 1311[b][1][B and C]). A sanitary sewer or combined sewer overflow that results in the discharge of raw sewage or wastewater not meeting this Order's effluent limitations to surface waters is therefore prohibited. This prohibition does not apply to combined sewer discharges that this Order explicitly authorizes pursuant to the *Combined Sewer Overflow Control Policy*.

## 2. Exception to Shallow Water and Dead-End Slough Discharge Prohibition

Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharges not receiving a minimum of 10:1 initial dilution and discharges to dead-end sloughs. Basin Plan section 4.2 provides for exceptions under certain circumstances:

- An inordinate burden would be placed on the Discharger relative to the beneficial uses protected, and an equivalent level of environmental protection can be achieved by alternate means;
- A discharge is approved as part of a reclamation project;
- Net environmental benefits will be derived as a result of the discharge; or
- A discharge is approved as part of a groundwater cleanup project.

Discharges to Discharge Point No. 001 receive a minimum of at least 10:1 dilution (see Fact Sheet section IV.A.1.b); therefore, they are not subject this discharge prohibition. During wet weather, this Order grants an exception for discharges to Discharge Point Nos. CSD-001 through CSD-007 for the following reasons:

- a. Wet weather discharges to Discharge Point Nos. CSD-001 through CSD-007 occur as a result of the Discharger's efforts to maximize treatment of sanitary and industrial wastewater *and* stormwater. To eliminate all combined sewer discharges would place an inordinate burden on the Discharger, which has invested heavily in infrastructure that captures and treats most combined wastewater and stormwater. Providing additional deepwater discharge capacity is unwarranted for the relatively small portion of the combined wastewater not discharged to deep water. Such a burden would be wholly disproportional relative to the beneficial uses protected because this Order's requirements are sufficient to protect beneficial uses.
- b. An equivalent level of environmental protection has been achieved because Provision VI.C.5.c.i specifies controls that ensure the reliability of the Discharger's system in maximizing treatment and minimizing discharges not receiving at least 10:1 initial dilution. Combined sewer discharges at Discharge Point Nos. CSD-001 through CSD-007 receive equivalent-to-primary treatment and only occur when pumping to Discharge Point No. 001 is at capacity. Before any combined sewer discharges occur, the Discharger optimizes discharges at Discharge Point No. 001.
- c. Net environmental benefits result from the operation of a combined sewer system. The system removes many pollutants in urban runoff, which elsewhere in the Region are discharged through stormwater outfalls with little or no treatment. For example, the

system removed approximately 625 tons, or 63 percent, of suspended sediment from the stormwater component of its influent from July 2012 through June 2013; even taking into account the suspended solids in sanitary wastewater that would not be discharged in a separate system, the system effectively removed approximately 540 tons, or 55 percent, of suspended sediment from the stormwater component of its influent that would not have been removed by a separate system (*Monitoring Study to Effectively Characterize Overflow Impacts and the Efficacy of CSO Control, Annual Status Report, September 30, 2013*).

**B. Technology-Based Effluent Limitations**

**1. Dry Weather**

- a. **Secondary Treatment Standards.** CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include conditions meeting technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet water quality standards. The discharges authorized by this Order must meet technology-based requirements based on the Secondary Treatment Standards at 40 C.F.R. part 133 as listed in the table below. In addition to these requirements, the monthly average percent removals for biochemical oxygen demand (BOD<sub>5</sub>) (or carbonaceous biochemical oxygen demand, CBOD<sub>5</sub>) and total suspended solids (TSS), by concentration, are not to be less than 85 percent.

**Table F-8. Secondary Treatment Requirements**

Parameter	Monthly Average	Weekly Average
BOD <sub>5</sub> <sup>[1]</sup>	30 mg/L	45 mg/L
CBOD <sub>5</sub> <sup>[1]</sup>	25 mg/L	40 mg/L
TSS	30 mg/L	45 mg/L
pH	6.0 – 9.0 standard units	

Unit Abbreviation:

mg/L = milligrams per liter

Footnote:

<sup>[1]</sup> CBOD<sub>5</sub> effluent limitations may be substituted for BOD<sub>5</sub> effluent limitations.

- b. **Ocean Plan Requirements.** Ocean Plan chapter III.B.1 establishes technology-based effluent limitations for publicly owned treatment works and industrial discharges for which effluent limitation guidelines have not been established pursuant to CWA sections 301, 302, 304, or 306. The discharges authorized by this Order must meet the minimum technology-based effluent limitations established in Ocean Plan Table 2.

**Table F-9. Ocean Plan Table 2 Effluent Limitations**

Parameter	Units	Monthly Average	Weekly Average	Instantaneous
Grease and Oil	mg/L	25	40	75
TSS	75 percent removal from influent before discharge (30-day average) <sup>[1]</sup>			
Settleable Solids	mL/L	1.0	1.5	3.0

Parameter	Units	Monthly Average	Weekly Average	Instantaneous
Turbidity	NTU	75	100	225
pH		within 6.0 to 9.0 range (all times)		

Unit Abbreviations:

mg/L = milligrams per liter  
 mL/L = milliliters per liter  
 NTU = nephelometric turbidity units

Footnote:

<sup>(1)</sup> TSS effluent concentrations need not be lower than 60 mg/L.

- c. Effluent Limitations.** The CBOD<sub>5</sub> effluent limitations, including the 85 percent removal requirement, are based on the secondary treatment requirements at 40 C.F.R. section 133.102(a). The previous order contained BOD<sub>5</sub> limitations. The Discharger requested CBOD<sub>5</sub> limitations instead because the CBOD<sub>5</sub> test provides more consistent results. The substitution of CBOD<sub>5</sub> for BOD<sub>5</sub> is consistent with 40 C.F.R. part 133.

The TSS effluent limitations, including the 85 percent removal requirement, are based on the secondary treatment requirements at 40 C.F.R. section 133.102(b). These requirements are more stringent than those in Ocean Plan Table 2.

The pH effluent limitations are based on the secondary treatment requirements at 40 C.F.R. section 133.102(c) and Ocean Plan Table 2.

The grease and oil, settleable solids, and turbidity effluent limitations are based on Ocean Plan Table 2.

This Order does not contain bacteria limitations because Ocean Plan bacteria requirements apply only to waters designated with the water contact recreation beneficial use. This use designation extends only as far as the State waters of the Pacific Ocean, three nautical miles from shore. It does not apply to the federal waters in which Discharge Point No. 001 is located. Because there are no bacteria limitations, there is no need for disinfection, and this Order also does not contain chlorine residual limitations.

**2. Wet Weather**

Wet weather discharges are not subject to the Secondary Treatment Standards and Ocean Plan Table 2 effluent limitations. Instead, these discharges are subject to the *Combined Sewer Overflow Control Policy*, which establishes technology-based requirements based on 40 C.F.R. section 125.3. The Discharger must implement Nine Minimum Controls, which represent the best conventional technology and the best available technology economically achievable. Provision VI.C.5.b of this Order contains these requirements.

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

This Order contains water quality-based effluent limitations (WQBELs) that implement water quality objectives that protect beneficial uses. Fact Sheet section xxx, above, identifies the Pacific Ocean’s beneficial uses. Ocean Plan chapter II (including Ocean Plan Table 1) lists the water quality objectives. The Basin Plan incorporates these objectives for ocean waters by reference.

CWA section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than federal technology-based requirements where necessary to achieve applicable water quality standards. According to 40 C.F.R. section 122.44(d)(1)(i), permits must include effluent limitations for all pollutants that are or may be discharged at levels that have a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective, 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; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting a narrative criterion, supplemented with relevant information (40 C.F.R. § 122.44[d][1][vi]). The process for determining “reasonable potential” and calculating WQBELs when necessary is intended to achieve applicable water quality objectives and protect designated beneficial uses.

During dry weather, this Order imposes numeric effluent limitations at Discharge Point No. 001 for pollutants with reasonable potential to cause or contribute to exceedances of water quality standards. During wet weather, this Order imposes narrative effluent limitations, not numeric limitations. In accordance with the *Combined Sewer Overflow Control Policy*, this Order requires the Discharger to implement its Long-Term Control Plan to control combined sewer discharges and overflows. The plan calls for meeting CWA water quality-based requirements by providing a minimum level of treatment. The *Combined Sewer Overflow Control Policy* presumes that CWA water quality-based requirements will be met if the Discharger implements at least primary clarification of at least 85 percent of collected wastewater (unless data indicate otherwise). U.S. EPA describes this “presumption approach” as follows:

A program that meets any of the criteria listed below would be presumed to provide an adequate level of control to meet the water quality-based requirements of the CWA, provided the permitting authority determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas described above. These criteria are provided because data and modeling of wet weather events often do not give a clear picture of the level of [combined sewer overflow] controls necessary to protect [water quality standards].

- i. No more than an average of four overflow events per year, provided that the permitting authority may allow up to two additional overflow events

per year. For the purpose of this criterion, an overflow event is one or more overflows from a CSS (Combined Sewer System) as the result of a precipitation event that does not receive the minimum treatment specified below; or

- ii. The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the Combined Sewer System during precipitation events on a system-wide annual average basis; or
- iii. The elimination or removal of no less than the mass of the pollutants, identified as causing water quality impairment through the sewer system characterization, monitoring, and modeling effort, for the volumes that would be eliminated or captured for treatment under paragraph ii above.

Combined sewer overflows remaining after implementation of the nine minimum controls and within the criteria specified at [i or ii], should receive a minimum of:

- Primary clarification (Removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification.);
- Solids and floatables disposal; and
- Disinfection of effluent, if necessary, to meet [water quality standards], protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary.

The Discharger's Long-Term Control Plan exceeds the specifications for the presumption approach. The Discharger's system is designed to capture 100 percent of combined wastewater within the storage/transport structures and to provide treatment consisting of floatables and settleable solids removal. Therefore, no untreated combined sewer overflows occur (combined sewer discharges receive equivalent-to-primary treatment).

Provision VI.C.5.c of this Order requires the Discharger to continue implementing its Long-Term Control Plan.

U.S. EPA and the Regional Water Board find that it is reasonable to presume that implementing the Long-Term Control Plan will provide an adequate level of control to meet CWA water quality-based requirements based on combined sewer discharge monitoring conducted from 2004 through 2014. The Discharger found that average combined sewer discharge pollutant concentrations are below Ocean Plan water quality objectives for metals and other priority pollutants, with the exception of zinc (*Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, July 30, 2014). The average total recoverable zinc concentration was 118 µg/L, compared to the water quality objective of 80 µg/L. Water quality objectives apply in the receiving water, not combined sewer discharges per se. Therefore, given the relatively short duration of combined sewer discharges (i.e., just a few hours each time), and accounting for the inevitable dilution within the receiving waters during wet weather, water quality standards appear to be

maintained. Furthermore, zinc concentrations in the receiving water were below Ocean Plan water quality objectives in a voluntary receiving water characterization study the Discharger conducted in 2012 (*Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, July 30, 2014).

### 1. Minimum Initial Dilution

In accordance with the Ocean Plan, the minimum initial dilution at Discharge Point No. 001 can be estimated by experimental observation or computer simulation. The Discharger submitted an updated dilution study in April 2014, *Southwest Ocean Outfall (Discharge Point No. 001) Dilution Modeling Report – Final*, which used NRFIELD and UM3 models and ambient water data measured from April 2012 to October 2013. Based on the ~~more conservative~~ UM3 model estimate, the minimum initial dilution ratio is ~~148372:1~~ (parts seawater per part wastewater). ~~This represents the minimum 30-day average dilution (daily) during the period of maximum stratification, observed from November-August 2012 through October-January-2013 considering the influence of ocean currents, assuming no current.~~

~~Although the Ocean Plan requires that dilution estimates be based on the assumption of no currents, in some cases, the discharge in stream waste concentrations to be used for chronic toxicity tests are based on dilution factors that incorporate available information about ocean currents and their effects on the discharge. The Ocean Plan does not provide for consideration of such information ocean currents in establishing dilution credits. To address this, U.S. EPA has prepared a determination of no unreasonable degradation based 40 C.F.R. section 125.122(a) (see Fact Sheet section III.C.3.a and U.S. EPA staff memorandum, 2015). The Discharger’s dilution study also estimated dilution based on existing current velocity data measured at mid-depth of the water column. In this case, the more conservative NRFIELD model estimate of the minimum 30-day average dilution during the period of maximum stratification is 266:1.~~

### 2. Need for Water Quality-Based Effluent Limitations (Reasonable Potential Analysis)

**a. Methodology.** For dry weather discharges, the reasonable potential analysis is based on the procedure described in Ocean Plan Appendix VI. The procedure assumes a lognormal distribution for the effluent data and compares the 95th percentile concentration at 95 percent confidence for each parameter in Ocean Plan Table 1, accounting for dilution, to the applicable water quality objective in Ocean Plan Table 1. The analysis results in one of three endpoints for each pollutant based on four triggers:

- Endpoint 1 – There is reasonable potential. A WQBEL and monitoring are required.
- Endpoint 2 – There is no reasonable potential. A WQBEL is not required, but monitoring may be required.
- Endpoint 3 – The analysis is inconclusive. Any existing WQBEL is retained, and monitoring is required.

The four triggers are as follows:

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We’d like to discuss expectations in the context of the requirement to take action should the EO make a determination that standards are not being met (LTCP plan re-evaluation language in the main body of the permit).

**Commented [A90]:**

See other comments regarding dilution.

- i. **Trigger 1.** If any detected value after adjustment for dilution ( $X$ ) is greater than the applicable water quality objective ( $C_o$ ), then Endpoint 1 applies.

For Table 1 pollutants:  $X = (C_e + D_m C_s) / (D_m + 1)$

For acute toxicity:  $X = C_e / (0.1 D_m + 1)$

Where:  $C_e$  is the effluent concentration

$D_m$  is the minimum initial dilution expressed as parts seawater per part wastewater

$C_s$  is the background seawater concentration from Ocean Plan Table 3.

- ii. **Trigger 2.** If there are three or more detected values and the number of non-detected (ND) or detected but not quantified (DNQ) values ( $c$ ) is less than or equal to 80 percent of the number of data points ( $n$ ) (i.e., if  $c/n \leq 80\%$ ), a parametric reasonable potential analysis is performed. If the calculated upper confidence bound is greater than  $C_o$ , then Endpoint 1 is concluded; otherwise Endpoint 2 is concluded.

- iii. **Trigger 3.** If there are less than three detected values or if there are more than three detected values but the percentage of non-detected (ND) or detected but not quantified (DNQ) values is more than 80 percent (i.e., if  $c/n > 80\%$ ), a non-parametric reasonable potential analysis is performed. Depending on the results, either Endpoint 2 or Endpoint 3 is concluded.

- iv. **Trigger 4.** If any other information about the receiving water or the discharge supports a finding of reasonable potential, then the reasonable potential analysis may be based on best professional judgment. If data or other information is unavailable or insufficient to determine if a WQBEL is required, Endpoint 3 is concluded. Otherwise, either Endpoint 1 or Endpoint 2 is concluded.

- b. **Effluent Data.** Due to the potential for the Westside Recycled Water Project to become operational during this Order's term, two reasonable potential analyses were performed, one based on current effluent quality, and one based on potential future effluent quality with the Westside Recycled Water Project. In both cases, the analyses were based on effluent monitoring data the Discharger collected for Discharge Point No. 001 from October 2009 through May 2014. However, with full operation of the Westside Recycled Water Project, the Discharger anticipates that the discharge could potentially consist entirely of reverse osmosis brine concentrate approximately 1.4 percent of the time. Under these rare instances, the effluent could be as much as four times more concentrated when compared to existing conditions. For purposes of the Westside Recycled Water Project analysis, however, existing effluent data were multiplied by a concentration factor of 1.5, which reflects the foreseeable increase based on a 30-day averaging period. This concentration factor corresponds to the most stringent water quality objectives in Ocean Plan Table 1 for most pollutants and is sufficient to evaluate reasonable potential when the most stringent objectives apply to a six-month period. A concentration factor of 1.6



was used for the ammonia analysis to account for a potential 12 percent increase in ammonia concentrations resulting from proposed digester improvements.

- c. **Reasonable Potential Analysis Results.** The following tables present the results of the two reasonable potential analyses performed. The reasonable potential analyses indicate “reasonable potential” for chronic toxicity; therefore, this Order establishes chronic toxicity WQBELs. WQBELs are unnecessary for any other pollutants.

**Table F-10. Reasonable Potential Analysis #1 – Existing Conditions**

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
<b>Objectives for Protection of Marine Aquatic Life</b>							
Ammonia (as nitrogen)	600	14	0	46,000	310	360	Endpoint 2
Arsenic	8	39	39	<2.0	<3.0	---	Endpoint 2
Cadmium	1	39	39	<0.25	<0.0017	---	Endpoint 2
Chlorinated Phenolics	1	4	4	<6.0	<0.040	---	Endpoint 3
Chromium (VI)	2	37	36	0.86	0.0058	---	Endpoint 2
Acute Toxicity <sup>[1]</sup>	N/A						
<b>Chronic Toxicity</b>	<b>1 TUc</b>	<b>13</b>	<b>0</b>	<b>150 TUc</b>	<b>1.0 TUc</b>	<b>1.06 TUc</b>	<b>Endpoint 2</b>
Copper	3	39	0	26	2.2	2.1	Endpoint 2
Cyanide	1	14	12	8.2	0.055	---	Endpoint 2
Endosulfan (total)	0.009	4	4	<0.0062	<4.1E-5	---	Endpoint 3
Endrin	0.002	4	4	<0.0028	<1.9E-5	---	Endpoint 3
HCH	0.004	4	4	<0.0026	<1.7E-5	---	Endpoint 3
Lead	2	39	12	1.6	0.011	0.010	Endpoint 2
Mercury	0.04	40	1	0.071	0.0010	0.0007	Endpoint 2
Nickel	5	39	0	4.5	0.030	0.026	Endpoint 2
Non-chlorinated Phenolics	30	4	3	1.2	0.0081	---	Endpoint 3
Radioactivity <sup>[2]</sup>	N/A						
Selenium	15	39	39	<2.0	<0.013	---	Endpoint 2
Silver	0.7	39	38	0.40	0.16	---	Endpoint 2
Total Chlorine Residual <sup>[3]</sup>	N/A						
Zinc	20	39	0	54	8.3	8.3	Endpoint 2
<b>Objectives for Protection of Human Health – Noncarcinogens</b>							
1,1,1-Trichloroethane	540,000	4	4	<0.24	<0.0016	---	Endpoint 3
2,4-Dinitrophenol	4.0	4	4	<0.83	<0.0056	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	4	4	<1.5	<0.010	---	Endpoint 3
Acrolein	220	4	4	<50	<0.34	---	Endpoint 3
Antimony	1,200	38	37	0.56	0.0038	---	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	4	4	<0.93	<0.0062	---	Endpoint 3
Bis(2-Chloroisopropyl)Ether	1,200	4	4	<0.81	<0.0054	---	Endpoint 3
Chlorobenzene	570	4	4	<0.25	<0.0017	---	Endpoint 3
Chromium (III) <sup>[4]</sup>	N/A						
Dichlorobenzenes	5,100	4	4	<3.0	<0.020	---	Endpoint 3
Diethyl Phthalate	33,000	4	4	<0.86	<0.0058	---	Endpoint 3
Dimethyl Phthalate	820,000	4	4	<0.97	<0.0065	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	4	4	<0.91	<0.0061	---	Endpoint 3

**Commented [A91]:**  
 Using the rpscalc software, we could not arrive at a value this high. Using 4 years of data, we arrived at 1.0020 TU for the 95 percentile.

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 Chronic toxicity failed Trigger 1 as indicated in the Fact Sheet because the RPA applied a new and lower dilution factor of 148:1. However, the dilution series used during chronic toxicity testing for the current permit were based on the dilution factor used in the current permit (150:1). The chronic toxicity test results in bracketed range or interval which contains the “real” toxicity number. Had the 148:1 been applicable to the current permit, SF would have conducted toxicity series where the high end of the range would have been 147 and the results would not show an exceedance (Trigger 1).

A reasonable potential analysis using a non-parametric approach as specified in Step 11 of Appendix VI of the Ocean Plan would result in no reasonable potential for chronic toxicity for the current discharge. This approach was recommended by State Board staff because the chronic toxicity results represent numeric intervals based on the dilution series rather than discrete numbers.

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
Ethylbenzene	4,100	4	4	<1.0	<0.0067	---	Endpoint 3
Fluoranthene	15	5	5	<0.54	<0.0036	---	Endpoint 3
Hexachlorocyclopentadiene	58	4	4	<0.90	<0.0060	---	Endpoint 3
Nitrobenzene	4.9	4	4	<0.95	<0.0064	---	Endpoint 3
Thallium	2	38	38	<1.0	<0.0067	---	Endpoint 2
Toluene	85,000	4	4	<0.20	<0.0014	---	Endpoint 3
Tributyltin	0.0014	4	4	<0.0026	<1.7E-5	---	Endpoint 3
<b>Objectives for Protection of Human Health – Carcinogens</b>							
1,1,2,2-Tetrachloroethane	2.3	4	4	<0.68	<0.0045	---	Endpoint 3
1,1,2-Trichloroethane	9.4	4	4	<0.14	<0.00094	---	Endpoint 3
1,1-Dichloroethylene	0.9	4	4	<0.089	<0.00060	---	Endpoint 3
1,2-Dichloroethane	28	4	4	<0.15	<0.0010	---	Endpoint 3
1,2-Diphenylhydrazine	0.16	4	4	<0.90	<0.0060	---	Endpoint 3
1,3-Dichloropropylene	8.9	4	4	<0.24	<0.0016	---	Endpoint 3
1,4-Dichlorobenzene	18	4	4	<1.0	<0.0067	---	Endpoint 3
TCDD Equivalents	3.9E-9	4	4	<2.5E-8	<1.7E-10	---	Endpoint 3
2,4,6-Trichlorophenol	0.29	4	4	<0.99	<0.0066	---	Endpoint 3
2,4-Dinitrotoluene	2.6	4	4	<0.96	<0.0064	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	4	4	<5.0	<0.034	---	Endpoint 3
Acrylonitrile	0.10	4	4	<5.0	<0.34	---	Endpoint 3
Aldrin	2.2E-5	4	4	<0.00075	<5.0E-6	---	Endpoint 3
Benzene	5.9	4	4	<0.20	<0.0013	---	Endpoint 3
Benzidine	6.9E-5	4	4	<5.0	<0.034	---	Endpoint 3
Beryllium	0.033	38	38	<0.50	<0.0034	---	Endpoint 2
Bis(2-Chloroethyl)Ether	0.045	4	4	<0.95	<0.0064	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	4	2	3.3	0.022	---	Endpoint 3
Carbon Tetrachloride	0.90	4	4	<0.19	<0.0013	---	Endpoint 3
Chlordane	2.3E-5	4	4	<0.018	<0.00012	---	Endpoint 3
Chlorodibromomethane	8.6	4	4	<0.13	<0.00089	---	Endpoint 3
Chloroform	130	4	3	3.7	0.025	---	Endpoint 3
DDT (total)	0.00017	4	4	<2.1	<0.014	---	Endpoint 3
Dichlorobromomethane	6.2	4	4	<0.18	<0.0012	---	Endpoint 3
Dichloromethane	450	4	4	<0.40	<0.0027	---	Endpoint 3
Dieldrin	4.0E-5	4	4	<0.0013	<8.9E-6	---	Endpoint 3
Halomethanes	130	4	4	<0.69	<0.0046	---	Endpoint 3
Heptachlor	5E-5	4	4	<0.0013	<9.0E-6	---	Endpoint 3
Heptachlor Epoxide	2E-5	4	4	<0.00056	<3.8E-6	---	Endpoint 3
Hexachlorobenzene	0.00021	4	4	<0.91	<0.0061	---	Endpoint 3
Hexachlorobutadiene	14	4	4	<0.92	<0.0062	---	Endpoint 3
Hexachloroethane	2.5	4	4	<0.94	<0.0063	---	Endpoint 3
Isophorone	730	4	4	<0.93	<0.0062	---	Endpoint 3
N-Nitrosodimethylamine	7.3	4	4	<0.88	<0.0059	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	4	4	<0.97	<0.0065	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	4	4	<0.83	<0.0056	---	Endpoint 3
PAHs (total)	0.0088	3	3	<0.48	<0.0032	---	Endpoint 3
PCBs	1.9E-5	4	4	<0.40	<0.0027	---	Endpoint 3
Tetrachloroethylene	2.0	4	4	<0.14	<0.0010	---	Endpoint 3

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
Toxaphene	0.00021	4	4	<0.058	<0.00039	---	Endpoint 3
Trichloroethylene	27	4	4	<0.38	<0.0025	---	Endpoint 3
Vinyl Chloride	36	4	4	<0.66	<0.0044	---	Endpoint 3

**Abbreviations:**

WQO = water quality objective  
 µg/L = micrograms per liter  
 TUC = chronic toxicity units, equal to 100/NOEL, where NOEL is the no observed effect level.

**Footnotes:**

- <sup>[1]</sup> The previous order did not require monitoring for acute toxicity.
- <sup>[2]</sup> The previous order did not require monitoring for radioactivity.
- <sup>[3]</sup> Chlorine is not added for disinfection, and the previous order did not require monitoring for residual chlorine.
- <sup>[4]</sup> The previous order did not require monitoring for chromium (III); however, the maximum detected concentration of total chromium (3.4 µg/L) is less than the water quality objective for chromium (III) of 190,000 µg/L.

**Table F-11. Reasonable Potential Analysis #2 – Westside Water Recycling Project Conditions**

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
<b>Objectives for Protection of Marine Aquatic Life</b>							
Ammonia (as nitrogen)	600	14	0	73,000	490	580	Endpoint 2
Arsenic	8	39	39	<3.0	<3.0	---	Endpoint 2
Cadmium	1	39	39	<0.38	<0.0025	---	Endpoint 2
Chlorinated Phenolics	1	4	4	<9.0	<0.060	---	Endpoint 3
Chromium (VI)	2	37	36	1.3	0.0086	---	Endpoint 2
Acute Toxicity <sup>[1]</sup>	N/A						
Chronic Toxicity <sup>[2]</sup>	N/A						Endpoint 1 <sup>[4]</sup>
Copper	3	39	0	39	2.2	2.2	Endpoint 2
Cyanide	1	14	12	12	0.082	---	Endpoint 3
Endosulfan (total)	0.009	4	4	<0.0093	<6.2E-5	---	Endpoint 3
Endrin	0.002	4	4	<0.0042	<2.8E-5	---	Endpoint 3
HCH	0.004	1	1	<0.0039	<2.6E-5	---	Endpoint 3
Lead	2	39	12	2.4	0.016	0.015	Endpoint 2
Mercury	0.04	40	1	0.11	0.0012	0.0008	Endpoint 2
Nickel	5	39	0	6.7	0.045	0.039	Endpoint 2
Non-chlorinated Phenolics	30	4	3	1.8	0.012	---	Endpoint 3
Radioactivity <sup>[3]</sup>	N/A						
Selenium	15	39	39	<3.0	<0.020	---	Endpoint 2
Silver	0.7	39	38	0.60	0.16	---	Endpoint 2
Total Chlorine Residual <sup>[4]</sup>	N/A						
Zinc	20	39	0	81	8.5	8.4	Endpoint 2
<b>Objectives for Protection of Human Health – Noncarcinogens</b>							
1,1,1-Trichloroethane	540,000	4	4	<0.35	<0.0024	---	Endpoint 3
2,4-Dinitrophenol	4.0	4	4	<1.2	<0.0084	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	4	4	<2.3	<0.016	---	Endpoint 3

**Commented [A93]:**  
 There is no Endpoint 4 in the Ocean Plan.  
 Endpoint 1 could work.

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
Acrolein	220	4	4	<75	<0.50	---	Endpoint 3
Antimony	1,200	38	37	0.84	0.0056	---	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	4	4	<1.4	<0.0094	---	Endpoint 3
Bis(2-Chloroisopropyl)Ether	1,200	4	4	<1.2	<0.0082	---	Endpoint 3
Chlorobenzene	570	4	4	<0.37	<0.0025	---	Endpoint 3
Chromium (III) <sup>(5)</sup>	N/A						
Dichlorobenzenes	5,100	4	4	<4.5	<0.030	---	Endpoint 3
Diethyl Phthalate	33,000	4	4	<1.3	<0.0087	---	Endpoint 3
Dimethyl Phthalate	820,000	4	4	<1.5	<0.0098	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	4	4	<1.4	<0.0092	---	Endpoint 3
Ethylbenzene	4,100	4	4	<1.5	<0.010	---	Endpoint 3
Fluoranthene	15	5	5	<0.81	<0.0054	---	Endpoint 3
Hexachlorocyclopentadiene	58	4	4	<1.4	<0.0091	---	Endpoint 3
Nitrobenzene	4.9	4	4	<1.4	<0.0096	---	Endpoint 3
Thallium	2	38	38	<1.5	<0.010	---	Endpoint 2
Toluene	85,000	4	4	<0.30	<0.0020	---	Endpoint 3
Tributyltin	0.0014	4	4	<0.0039	<2.6E-5	---	Endpoint 3
<b>Objectives for Protection of Human Health – Carcinogens</b>							
1,1,2,2-Tetrachloroethane	2.3	4	4	<1.0	<0.0068	---	Endpoint 3
1,1,2-Trichloroethane	9.4	4	4	<0.21	<0.0014	---	Endpoint 3
1,1-Dichloroethylene	0.9	4	4	<0.13	<0.00090	---	Endpoint 3
1,2-Dichloroethane	28	4	4	<0.22	<0.0015	---	Endpoint 3
1,2-Diphenylhydrazine	0.16	4	4	<1.4	<0.0091	---	Endpoint 3
1,3-Dichloropropylene	8.9	4	4	<0.36	<0.0024	---	Endpoint 3
1,4-Dichlorobenzene	18	4	4	<1.5	<0.010	---	Endpoint 3
TCDD Equivalents	3.9E-9	4	4	<3.8E-8	<2.5E-10	---	Endpoint 3
2,4,6-Trichlorophenol	0.29	4	4	<1.5	<0.010	---	Endpoint 3
2,4-Dinitrotoluene	2.6	4	4	<1.4	<0.0097	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	4	4	<7.5	<0.050	---	Endpoint 3
Acrylonitrile	0.10	4	4	<75	<0.50	---	Endpoint 3
Aldrin	2.2E-5	4	4	<0.0011	<7.6E-6	---	Endpoint 3
Benzene	5.9	4	4	<0.30	<0.0020	---	Endpoint 3
Benzidine	6.9E-5	4	4	<7.5	<0.050	---	Endpoint 3
Beryllium	0.033	38	38	<0.75	<0.0050	---	Endpoint 2
Bis(2-Chloroethyl)Ether	0.045	4	4	<1.4	<0.0096	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	4	2	5.0	0.034	--	Endpoint 3
Carbon Tetrachloride	0.90	4	4	<0.29	<0.0020	---	Endpoint 3
Chlordane <sup>(13)</sup>	2.3E-5	4	4	<0.027	<0.00018	---	Endpoint 3
Chlorodibromomethane	8.6	4	4	<0.20	<0.0013	---	Endpoint 3
Chloroform	130	4	3	5.6	0.038	---	Endpoint 3
DDT (total)	0.00017	4	4	<3.1	<0.021	---	Endpoint 3
Dichlorobromomethane	6.2	4	4	<0.26	<0.0018	---	Endpoint 3
Dichloromethane	450	4	4	<0.61	<0.0041	---	Endpoint 3
Dieldrin	0.00004	4	4	<0.0020	<1.3E-5	---	Endpoint 3
Halomethanes	130	4	4	<1.0	<0.0069	---	Endpoint 3
Heptachlor	0.00005	4	4	<0.0020	<1.3E-5	---	Endpoint 3
Heptachlor Epoxide	0.00002	4	4	<0.00084	<5.6E-6	---	Endpoint 3

Table 1 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing (µg/L)	Projected 95 <sup>th</sup> Percentile (µg/L)	Result
Hexachlorobenzene	0.00021	4	4	<1.4	<0.0092	---	Endpoint 3
Hexachlorobutadiene	14	4	4	<1.4	<0.0093	---	Endpoint 3
Hexachloroethane	2.5	4	4	<1.4	<0.0095	---	Endpoint 3
Isophorone	730	4	4	<1.4	<0.0094	---	Endpoint 3
N-Nitrosodimethylamine	7.3	4	4	<1.3	<0.0089	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	4	4	<1.5	<0.0098	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	4	4	<1.2	<0.0084	---	Endpoint 3
PAHs (total)	0.0088	3	3	<0.72	<0.0048	---	Endpoint 3
PCBs	1.9E-5	4	4	<0.60	<0.0040	---	Endpoint 3
Tetrachloroethylene	2.0	4	4	<0.21	<0.0014	---	Endpoint 3
Toxaphene	0.00021	4	4	<0.087	<0.00058	---	Endpoint 3
Trichloroethylene	27	4	4	<0.57	<0.0038	---	Endpoint 3
Vinyl Chloride	36	4	4	<0.98	<0.0066	---	Endpoint 3

**Abbreviations:**

WQO = water quality objective  
 µg/L = micrograms per liter

**Footnotes:**

- <sup>[1]</sup> The previous order did not require monitoring for acute toxicity.
- <sup>[2]</sup> Chronic toxicity has reasonable potential as a result of Endpoint 4. Because chronic toxicity may occur as a result of various pollutants within the effluent and their toxic effects may not be linearly related to discharge concentrations, it is inappropriate to project future toxicity based on a concentration factor of 1.5. However, since there is reasonable potential under existing conditions, there must be reasonable potential under Westside Water Recycling Project conditions it appropriate to conclude that there may be reasonable potential for chronic toxicity since the pollutants will be more concentrated in the discharge as a result of the Westside Recycled Water Project.
- <sup>[3]</sup> The previous order did not require monitoring for radioactivity.
- <sup>[4]</sup> Chlorine is not added for disinfection, and the previous order did not require monitoring for residual chlorine.
- <sup>[5]</sup> The previous order did not require monitoring for chromium (III); however, the maximum projected concentration of total chromium (5.1 µg/L) is less than the water quality objective for chromium (III) of 190,000 µg/L.

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 There is no Endpoint 4 in the Ocean Plan.

**3. Chronic Toxicity WQBELs**

To comply with the chronic toxicity WQBEL, effluent must pass the null hypothesis of the TST statistical approach, i.e., the test must be able to support rejection of the following null hypothesis at the discharge in-stream waste concentration (IWC):

$$H_0: \text{mean discharge IWC response} \leq 0.75 \times \text{mean control response.}$$

In other words, the mean chronic toxicity response for a test sample must be statistically determined to be less than or equal to 75 percent of the response for a control sample. (The 75 percent response level reflects a regulatory management decision intended to ensure that differences observed between test sample responses and control sample responses are meaningful.)

The effluent concentration in the test sample may be adjusted to reflect the minimum initial dilution at the outfall. For existing conditions, the minimum initial dilution ratio is 148372:1; therefore, the test sample must contain 0.67627 percent effluent. The MRP specifies progressively lower effluent concentrations when the Westside Water Recycling Project

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 See other comments regarding dilution.

~~comes online, reflecting a minimum initial dilution ratio of up to 266:1 (as little as 0.37 percent effluent). See VII.A.3, below.~~

The Ocean Plan's approach to chronic toxicity WQBELs is based on a "toxic unit" derived from one multi-concentration toxicity test. In 2010, U.S. EPA endorsed the TST statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) used in this NPDES permit.

#### D. Final Effluent Limitation Considerations

##### 1. Anti-Backsliding Requirements

This Order complies with the anti-backsliding provisions of CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l), which generally require effluent limitations in a reissued permit to be as stringent as those in the previous permit. The requirements of this Order are at least as stringent as those in the previous order, with the exception of mercury ~~and, in some instances, chronic toxicity.~~

~~This Order relies on the TST statistical approach to evaluate chronic toxicity, but the new effluent limitation is comparable to that of the previous order; no chronic toxicity is allowed. The previous order's limit was based on a minimum initial dilution ratio of 149:1. Until Westside Water Recycling Project operations commence, this Order's limit is slightly more stringent because it is based on test concentrations reflecting a minimum initial dilution ratio of 148:1. However, this Order also allows lower effluent test concentrations (higher minimum initial dilution ratios) after Westside Water Recycling Project operations commence. In effect, the chronic toxicity limit is then less stringent than those in the previous order. Nevertheless, CWA section 402(o)(2)(a) allows backsliding because the Westside Water Recycling Project would represent a material and substantial alteration of the Facility.~~

This Order does not contain mercury WQBELs because mercury effluent data no longer indicate reasonable potential to exceed water quality objectives. The removal of mercury WQBELs is consistent with State Water Board Order WQ 2001-16.

##### 2. Antidegradation Policies

This Order complies with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. It continues the status quo with respect to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for a flow increase or a reduced level of treatment. The only potentially less stringent effluent limitation is the chronic toxicity WQBEL after Westside Water Recycling Project operations commence. The Westside Water Recycling Project is expected to concentrate, but not increase, existing toxic pollutant loads; therefore, it will not degrade the Pacific Ocean.

##### 3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. This Order's technology-based requirements implement minimum,

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Please see other comments regarding dilution and chronic toxicity limitations.

applicable federal technology-based requirements. In addition, this Order contains more stringent effluent limitations as necessary to meet water quality standards. These limitations are no more stringent than the CWA requires.

This Order's QBELs have been derived to implement water quality objectives that protect beneficial uses. The beneficial uses and water quality objectives have been approved pursuant to federal law and are federal water quality standards. U.S. EPA approved the Ocean Plan on February 14, 2006. Most Basin Plan beneficial uses and water quality objectives were approved under State law and submitted to and approved by U.S. EPA prior to May 30, 2000. Beneficial uses and water quality objectives 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 C.F.R. section 131.21(c)(1). U.S. EPA approved the remaining beneficial uses and water quality objectives implemented by this Order so they are applicable water quality standards pursuant to 40 C.F.R. section 131.21(c)(2).

## **V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

This Order's receiving water limitations are based on Ocean Plan sections II.C, II.D, and II.E, and water quality standards established in accordance with the CWA and regulations adopted thereunder.

## **VI. RATIONALE FOR PROVISIONS**

### **A. Standard Provisions**

Attachment D contains standard provisions that apply to all NPDES permits in accordance with 40 C.F.R. section 122.41 and additional conditions applicable to specific categories of permits in accordance with 40 C.F.R. section 122.42. The Discharger must comply with these provisions.

In accordance with 40 C.F.R. section 123.25(a)(12), permits may impose more stringent requirements. Attachment G contains standard provisions that supplement the federal standard provisions in Attachment D.

In addition to federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(a)(2), 122.41(j)(5), and (k)(2), this Order incorporates Water Code section 13387(e) by reference.

### **B. Monitoring and Reporting**

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (Attachment E) of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. For more background regarding these requirements, see Fact Sheet section VII.

## C. Special Provisions

### 1. Reopener Provisions

These provisions are based on 40 C.F.R. sections 122.62 and 122.63 and allow modification of this Order and its effluent limitations as necessary in response to updated water quality objectives, regulations, or other new and relevant information that may become available in the future, and other circumstances as allowed by law.

### 2. Effluent Characterization Study and Report

This Order does not include effluent limitations for Ocean Plan water quality objectives that do not demonstrate reasonable potential, but this provision requires the Discharger to continue monitoring for these pollutants as described in the MRP and Attachment G. Monitoring data are necessary to verify that the “no” and “unknown” reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to 40 C.F.R. section 122.41(h) and California Water Code section 13267, and is necessary to inform the next permit reissuance and to ensure that the Discharger takes timely steps in response to any unanticipated change in effluent quality during the term of this Order.

### 3. Pollutant Minimization Program

The provision to continue implementation of a Pollutant Minimization Program is based on Ocean Plan chapter III.C.9 and Basin Plan section 4.13.2. The provision for pollution prevention is also required as one of the Nine Minimum Controls for combined sewer systems, described in section VI.C.5.b.

### 4. Special Provisions for Municipal Facilities

- a. **Pretreatment Program.** This provision is based on 40 C.F.R. part 403. The Discharger implements a pretreatment program due to the nature and volume of its industrial influent. This provision lists the Discharger’s responsibilities regarding its pretreatment program and requires compliance with the provisions in Attachment H, “Pretreatment Requirements.”
- b. **Sludge and Biosolids Management.** “Sludge” refers to the solid, semisolid, and liquid residue removed during primary, secondary, and advanced wastewater treatment processes. “Biosolids” refers to sludge that has been treated and may be beneficially reused. This provision is based on CWA section 405, 40 C.F.R. parts 257, 258, and 503, and Basin Plan section 4.17. U.S. EPA has not delegated the authority to implement this program to California; therefore, U.S. EPA is the implementing agency. For biosolids land-applied in the Central Valley, the ~~Discharger~~ Discharger is also subject to General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities, State Water Board Order 2004-0012 DWQ.
- c. **Collection System Management.** The Discharger’s collection system is predominantly a combined sewer system with some limited separate sanitary sewers. It is part of the



Facility regulated through this Order. This provision explains this Order's requirements as they relate to the Discharger's collection system and promotes consistency with the State Water Board's *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (General Collection System WDRs), Order 2006-0003-DWQ, as amended by WQ 2013-0058-EXEC.

- i. **Separate Sanitary Sewer System.** The General Collection System WDRs require public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Collection System WDRs. The General Collection System WDRs contain requirements for collection system operation and maintenance and for reporting and mitigating sanitary sewer overflows. They also require agencies to develop sanitary sewer management plans and report all sanitary sewer overflows. The Discharger must comply with both the General Collection System WDRs and this Order. To the extent that the Discharger's separate sanitary sewer collection system is part of the Facility subject to this Order, certain provisions apply, as specified in Provision VI.C.4.c.i.
- ii. **Combined Sewer System.** For purposes of this Order, an "excursion" is a release or diversion of untreated or partially treated wastewater from the combined sewer system that exits the system temporarily and then re-enters it. The Discharger and U.S. EPA developed the collection system excursion reporting requirement in this Order so the information would be available.

## 5. Combined Sewer Overflow Control Policy Requirements

The *Combined Sewer Overflow Control Policy* addresses combined sewer system operations. Its requirements are summarized below as they relate to this Order. The Discharger has designed, constructed, and implemented control strategies that address wet weather flows. This provision specifies performance criteria for wet weather combined sewer system operations.

- a. **Combined Sewer Overflow Operation and Maintenance Plan.** This provision is necessary to ensure that combined sewer system operations and maintenance comply with the Nine Minimum Controls and the Long-Term Control Plan requirements of the *Combined Sewer Overflow Control Policy*.
- b. **Nine Minimum Controls.** The *Combined Sewer Overflow Control Policy* (section II.B) requires "Nine Minimum Controls" to satisfy CWA technology-based requirements during wet weather:
  - Conduct proper operations and maintenance programs,
  - Maximize use of collection system for storage,
  - Review and modify pretreatment program,
  - Maximize flow to plant,
  - Prohibit dry weather combined sewer overflows,
  - Control solid and floatable materials in combined sewer discharges,
  - Develop and implement pollution prevention program,

- Notify public of combined sewer discharges, and
- Monitor to characterize wet weather discharge impacts and efficacy of controls.

The Discharger has designated Lewis Harrison as the contact person responsible for the wastewater collection system. The Order allows the Discharger to designate a different contact person as long as the Discharger notifies the Regional Water Board within 90 days.

Among other requirements, the Nine Minimum Controls require the Discharger to notify the public when combined sewer discharges occur. The Discharger's current notification process fulfills these requirements. It includes posting permanent signs at San Francisco beaches that inform the public in English, Spanish, and Chinese that international "No Swimming" signs will be posted when it is unsafe to enter the water and to warn users that bacteria concentrations may be elevated during heavy rain. The Discharger posts the "No Swimming" signs at beaches whenever a combined sewer discharge occurs in the area. These signs remain posted until water sampling indicates that bacteria concentrations have dropped below levels of concern for water contact recreation (i.e., the single-sample bacteriological standards of Cal. Code of Regs. tit. 17, § 7958[a][1]). Both types of signs provide the Discharger's toll-free water quality hotline (1-877-SFBEACH), which the Discharger updates weekly and whenever new bacteria results are available. The Discharger provides color-coded indicators (green=open; red=posted) of beach water quality conditions on the Internet (<http://beaches.sfwater.org>) and offers a mobile application for download from the Apple App store and Google Play ("SF Beaches"). The Discharger also provides recreational users the ability to sign up to receive beach posting alerts by email.

- c. Long-Term Control Plan.** The *Combined Sewer Overflow Control Policy* (section II.C) requires implementation of a Long-Term Control Plan with nine elements to satisfy CWA water quality-based requirements during wet weather. As described below, either the Discharger has already addressed these elements or this Order requires specific provisions to ensure compliance with the *Combined Sewer Overflow Control Policy*. Provision VI.C.5.c.iv also requires the Discharger to synthesize and update its Long-Term Control Plan into one document that reflects current circumstances. The updated plan is necessary to optimize system operations so as to maximize pollutant removal during wet weather and minimize combined sewer discharges. This requirement recognizes that circumstances have changed since the plan was first developed and implemented. However, the Order maintains the historical long-term average annual design goal for combined sewer discharges.
- i. Characterization, Monitoring, and Modeling of Combined Sewer System.** The Discharger conducted characterization, monitoring, and modeling activities that served as the basis for selecting and designing effective controls. These activities included efforts described in the following documents:
- *San Francisco Master Plan for Waste Water Management, Preliminary Comprehensive Report* (September 15, 1971);

- *Final Environmental Impact Report & Statement, San Francisco Wastewater Master Plan* (May 1974);
  - *Overview Facilities Plan, San Francisco Master Plan, Wastewater Management* (August 1975);
  - *Westside Wet Weather Facilities Revised Overflow Control Study, Abstract Report and Request for Revised Overflow Frequency* (December 1978); and
  - *Lake Merced and Richmond Transport Storage Facilities Plan, Volumes I and II* (revised July 1990).
- ii. Public Participation.** The Discharger undertook a public participation process that actively involved the affected public in the decision-making process to select long-term controls, as described in *Final Environmental Impact Report & Statement, San Francisco Wastewater Master Plan* (May 1974) and *Overview Facilities Plan, San Francisco Master Plan, Wastewater Management* (August 1975).
- iii. Consideration of Sensitive Areas.** Provision VI.C.5.c.ii of this Order requires the Discharger to review its approach to protecting sensitive areas, which include waters with threatened or endangered species and their habitat, waters with primary contact recreation, and waters with shellfish beds, among others. This provision requires the following with each permit reissuance.
- iv. Evaluation of Alternatives.** The Discharger evaluated alternatives to enable it, in consultation with NPDES permitting authorities and the public, to select controls that meet CWA requirements as described in the following documents:
- *San Francisco Master Plan for Waste Water Management, Preliminary Comprehensive Report* (September 15, 1971);
  - *Final Environmental Impact Report & Statement, San Francisco Wastewater Master Plan* (May 1974);
  - *Overview Facilities Plan, San Francisco Master Plan, Wastewater Management* (August 1975); and
  - *Lake Merced and Richmond Transport Storage Facilities Plan, Volumes I and II* (revised July 1990).
- The Discharger selected controls sufficient to meet CWA requirements under the “presumption approach” described in Fact Sheet section IV.C.1.
- v. Cost/Performance Considerations.** The Discharger evaluated cost and performance considerations to demonstrate the relationships among a comprehensive set of reasonable control alternatives in the documents listed in section iv, above.

- vi. Operational Plan.** The Discharger operates the Facility in accordance with the *Wastewater Enterprise Westside Operations Summary, Baseline Report* (March 2014), which supplements, but does not replace, its *Combined Sewer Operations and Maintenance Plan*. Provision VI.C.5.a requires the Discharger to revise and update its *Combined Sewer Operations and Maintenance Plan*.
- vii. Maximizing Treatment.** The Discharger's system is optimized to minimize combined sewer discharge events and maximize flow to the plant based on considerations summarized in sections i through vi, above. Provision VI.C.5.c.i(a) requires the Discharger to optimize system operations to minimize combined sewer discharges and maximize pollutant removal during wet weather.
- viii. Implementation Schedule.** Construction of the Westside Wet Weather Facilities is complete and operations are conducted in accordance with the *Wastewater Enterprise Westside Operations Summary, Baseline Report* (March 2014).
- ix. Post-Construction Compliance Monitoring.** The *Combined Sewer Overflow Control Policy* requires monitoring to ascertain the effectiveness of controls and to verify compliance with water quality standards and protection of beneficial uses. If implemented controls do not result in attainment of water quality standards, including beneficial uses, a discharger must re-evaluate its operating practices. If monitoring indicates that water quality standards are not met, the data may be used to identify additional controls necessary to achieve water quality standards.

Provision VI.C.5.c.iii requires the Discharger to continue monitoring wet weather discharges to characterize their impacts and evaluate the efficacy of its wet weather controls. It also requires receiving water monitoring for total coliform, fecal coliform, and enterococcus at recreational use locations to determine the impacts of wet weather discharges on water contact recreation. The data collected may be used to document current conditions and evaluate whether beneficial uses are protected. Provision VI.C.5.d sets forth steps the Discharger must take if U.S. EPA or the Regional Water Board Executive Order finds that its discharges cause violations of water quality standards in receiving waters, and ensures that implementation of the Long-Term Control Plan continues to meet CWA water quality-based requirements.

## 6. Other Special Provisions

- a. Westside Recycled Water Project Notification.** The effluent limitations and specifications in this Order are based on information available during the permit reissuance process. Assumptions regarding how effluent quality could change after commencement of Westside Recycled Water Project operations were based on information the Discharger provided prior to completion of project planning and construction. This provision is necessary to evaluate whether the assumptions made during the permitting process remain valid and to ensure that the permit continues to be protective of water quality standards following the next reissuance. Moreover, because some requirements of this Order are contingent upon Westside Recycled Water Project

operations, notification is necessary for U.S. EPA and the Regional Water Board to know when such requirements apply.

- b. Standard Operating Procedures Requirement for Resource Recovery.** Standard Operating Procedures are required for dischargers that accept hauled waste fats, oil, and grease for injection into anaerobic digesters. The development and implementation of Standard Operating Procedures for management of these materials is intended to allow the California Department of Resources Recycling and Recovery to exempt operations from separate and redundant permitting programs. If the Discharger does not accept fats, oil, and grease for resource recovery purposes, it is not required to develop and implement Standard Operating Procedures.

## VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (Attachment E) of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

### A. MRP Requirements Rationale

- 1. Influent Monitoring.** Influent flow monitoring is necessary to identify wet weather as defined in Attachment A and to evaluate implementation of Long-Term Control Plan requirements. CBO<sub>5</sub> and TSS monitoring is necessary to evaluate compliance with this Order's 85 percent removal requirement.
- 2. Effluent Monitoring.** Effluent flow monitoring is necessary to evaluate compliance with Prohibition III.E (average dry weather flow) and to understand Facility operations. Monitoring for the other parameters is necessary to evaluate compliance with this Order's effluent limitations and to provide data for future reasonable potential analyses.
- 3. Chronic Toxicity Monitoring.** Effluent monitoring for chronic toxicity is necessary to evaluate compliance with this Order's chronic toxicity effluent limitation and to set forth clear expectations for accelerated monitoring and toxicity reduction evaluations in the event of any chronic toxicity effluent limit violations. It is also necessary to provide data for future reasonable potential analyses. ~~A tiered approach to determine the required effluent concentration in test samples removes impediments for the Discharger to construct and operate the Westside Recycled Water Project. At maximum recycled water production, toxicity test samples are to contain an effluent concentration based on the dilution at Discharge Point No. 001 as modeled using observed ocean currents. This flexibility accounts for potential increases in pollutant concentrations as recycled water is removed from the discharge. This flexibility is warranted since the pollutant mass discharged is not expected to change.~~

Commented [A97]: Please see other comments about dilution.

- 4. Receiving Water Monitoring.** The MRP requires the Discharger to continue its Southwest Ocean Outfall Regional Monitoring Program, to collect data on chemical and physical sediment quality, benthic infauna community structure, and physical anomalies and bioaccumulation of contaminants in organism tissues. This monitoring is necessary to characterize the effects of the discharges authorized in this Order on the receiving water. The MRP also requires shoreline monitoring following combined sewer discharge events at beach locations where water contact recreation takes place. This monitoring is necessary to assess the possible effects of combined sewer discharges on the water contact recreation beneficial use and to establish when public notification is required pursuant to Provisions VI.C.5.b.viii, VI.C.5.b.ix, and VI.C.5.c.iii of this Order. Finally, receiving water bacteria monitoring is necessary to confirm whether Discharge Point No. 001 discharges could affect the territorial waters of the State. If so, the Regional Water Board could use its authorities under the Ocean Plan to regulate those discharges.

The MRP no longer requires the Discharger to collect data on demersal fish and epibenthic invertebrate community structure because trawl sampling is harmful to the environment and marine life, including the listed longfin smelt species, and does not provide data that are useful in determining discharge effects (*Southwest Ocean Outfall Regional Monitoring Program 1997-2012 Summary Report* [April 2014]).

This provision also requires the Discharger to confirm that bacteria discharged through Discharge Point No. 001 do not impact waters of the State. On May 17, 1989, the Regional Water Board adopted Order No. 89-71, amending Order No. 88-106 to delete disinfection requirements for the effluent. The Regional Water Board action was based on the Discharger's technical report dated April 3, 1989, *Wastefield Transport and Bacteriological Compliance Studies of the San Francisco Ocean Outfall*. These studies were conducted in 1987 and 1988. The findings indicated that the non-disinfected primary-treated wastewater discharged from the Discharge Point No. 001 did not violate the Ocean Plan bacteriological body-contact standards. The Discharger now treats its wastewater to secondary treatment standards during dry weather. Regional Water Board staff used data from that study representing primary treatment to estimate the potential effects of discharging secondary-treated effluent (Regional Water Board staff memorandum, October 10, 2008). Estimated bacteria levels in federal waters were below Ocean Plan water quality objectives. The Water Board generally concurs that the deep water discharge could not affect bacteria levels in State waters; however, this conclusion is based on data collected in the 1980s that may not be representative of current conditions.

- 5. Pretreatment and Biosolids Monitoring.** The pretreatment and biosolids monitoring requirements for influent, effluent, and biosolids are necessary to evaluate compliance with the Discharger's U.S. EPA-approved pretreatment program. Biosolids monitoring is also required pursuant to 40 C.F.R. part 503.

- B. Monitoring Requirements Summary.** The table below summarizes routine monitoring requirements. This table is for informational purposes only. The actual requirements are specified in the MRP and elsewhere in this Order.

**Table F-12. Monitoring Requirements Summary**

Parameter	Influent INF-001	Effluent EFF-001A	Effluent EFF-001B	Effluent EFF-CSD	Effluent EFF-CSD-1 through EFF-CSD-7	Biosolids BIO-001	Receiving Water
Flow <sup>[2]</sup>	Continuous <sup>[1]</sup>	Continuous <sup>[1]</sup>	Continuous <sup>[1]</sup>	--	1/CSD Event <sup>[1,2]</sup>	--	See Provision VI.C.5.c.iii(a) (3) of the Order and Section VI of the MRP (Attachment E)
CBOD <sub>5</sub>	1/Week	1/Week	1/Month	--	--	--	
TSS	5/Week	5/Week	1/Month	1/CSD Event <sup>[2]</sup>	--	--	
Grease and Oil	--	1/Quarter	1/Month	--	--	--	
Settleable solids	--	1/Quarter	--	1/CSD Event <sup>[2]</sup>	--	--	
Turbidity	--	1/Quarter	--	--	--	--	
pH	--	5/Week	1/Month	1/CSD Event <sup>[2]</sup>	--	--	
Ammonia, total	--	1/Quarter	1/Month	1/CSD Event <sup>[2]</sup>	--	--	
Chronic Toxicity	--	1/Quarter	--	--	--	--	
Mercury	1/Month	1/Month	1/Year	--	--	2/Year	
Inorganic Ocean Plan Table 1 Pollutants <sup>[3]</sup>	--	1/Quarter	1/Year	--	--	--	
Remaining Ocean Plan Table 1 Pollutants <sup>[4]</sup>	--	1/Year	1/Year	--	--	--	
Volatile Organic Compounds	1/Quarter	1/Quarter	--	--	--	2/Year	
Base/Neutrals Acid Extractable Organic Compounds	1/Quarter	1/Quarter	--	--	--	2/Year	
Metals <sup>[5]</sup>	1/Month	1/Month	--	1/CSD Event <sup>[2]</sup>	--	2/Year	
Hexavalent Chromium	1/Month	1/Month	--	--	--	2/Year	
Metric tons/year	--	--	--	--	--	See Attach. G, § III.B.1	
Paint filter test	--	--	--	--	--	See Attach. G, § III.B.2	

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 Table will need to be adapted to be consistent with the MRP.

**Footnotes:**

<sup>[1]</sup> The following flows shall be reported:

- Total flow volume each day (MG)
- Total flow volume each month (MG)
- Minimum daily average flow each month (MGD)
- Maximum daily average flow each month (MGD)
- Average daily average dry weather flow each month (MGD)
- Average daily average wet weather flow each month (MGD)
- Monthly average flow each month (MGD)

For Monitoring Locations EFF-CSD-1 through EFF-CSD-7, only total flow volume (MG) and event duration are to be reported.

- <sup>[2]</sup> The Discharger shall collect samples whenever a combined sewer discharge event of at least one hour in duration occurs (and may also collect samples representing shorter events).
- <sup>[3]</sup> The inorganic Ocean Plan Table 1 pollutants are the inorganic pollutants listed in Ocean Plan Table 1 other than those for which this table establishes other monitoring requirements.
- <sup>[4]</sup> The remaining Ocean Plan Table 1 pollutants are the pollutants listed in Ocean Plan Table 1 other than those for which this table establishes other monitoring requirements. Chlorine monitoring is not required because the effluent is not disinfected.
- <sup>[5]</sup> The metals are arsenic, cadmium, copper, lead, nickel, selenium, silver, and zinc.

## VIII. PUBLIC PARTICIPATION

U.S. EPA and the Regional Water Board considered the issuance of WDRs and an NPDES permit (State Order and federal permit) for the Facility. As a step in this process, U.S. EPA and Regional Water Board staff developed a tentative order and encouraged public participation in the reissuance process.

**C. Notification of Interested Parties.** U.S. EPA and the Regional Water Board notified the Discharger and interested agencies and persons of their intent to adopt an order reissuing the NPDES permit for the Discharger's discharges and provided an opportunity to submit written comments and recommendations. Notification was provided through *The Recorder*. The public had access to the Regional Water Board agenda and any changes in dates and locations through the Regional Water Board website at <http://www.waterboards.ca.gov/sanfranciscobay> and the U.S. EPA website at <http://www.epa.gov/region9/water/npdes/pubnotices.html>.

**D. Written Comments.** Interested persons were invited to submit written comments concerning the tentative order as explained through the notification process. Comments to U.S. EPA and the Regional Water Board were to be submitted either in person or by mail to the U.S. EPA NPDES Permits Office (WTR-2-3) at 75 Hawthorne Street, San Francisco, California 94105, to the attention of Robyn Stuber, and to the Regional Water Board office at 1515 Clay Street, Suite 1400, Oakland, California 94612, to the attention of Jessica Watkins.

For full staff response and U.S. EPA and Regional Water Board consideration, the written comments were due by 5:00 p.m. on February 23, 2015.

**E. Public Hearing.** The Regional Water Board held a public hearing on the tentative order during its regular meeting at the following date and time, and at the following location:

Date: Wednesday, April 8, 2015  
Time: 9:00 a.m.  
Location: Elihu Harris State Office Building  
1515 Clay Street, 1<sup>st</sup> Floor Auditorium  
Oakland, CA 94612

Contact: Jessica Watkins, (510) 622-2349, [Jessica.Watkins@waterboards.ca.gov](mailto:Jessica.Watkins@waterboards.ca.gov)

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested to be in writing.



Dates and venues change. The Regional Water Board web address is <http://www.waterboards.ca.gov/sanfranciscobay>, where one could access the current agenda for changes in dates and locations.

- F. Reconsideration of Waste Discharge Requirements.** Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The State Water Board must receive the petition at the following address within 30 calendar days of the Regional Water Board's action.

State Water Resources Control Board  
Office of Chief Counsel  
P.O. Box 100, 1001 I Street  
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml).

- G. Federal NPDES Permit Appeals.** When U.S. EPA issues a final NPDES permit, it becomes effective on its effective date unless a request for review is filed. If a request for review is filed, only those permit conditions that are uncontested go into effect pending disposition of the request for review. Requests for review must be filed within 33 days following the date the final permit is mailed and must meet the requirements of 40 C.F.R. section 124.19. Requests for review should be addressed to the Environmental Appeals Board and sent through the U.S. Postal Service addressed to the Environmental Appeals Board's mailing address:

U.S. Environmental Protection Agency  
Clerk of the Board  
Environmental Appeals Board (MC 1103B)  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460-0001

Alternatively, filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Express Mail, should be directed to the following address:

Environmental Appeals Board  
U.S. Environmental Protection Agency  
Colorado Building  
1341 G Street, N.W., Suite 600  
Washington, D.C. 20460

Persons filing a request for review must have filed written comments on the draft permit. Otherwise, any such request for review may be filed only to the extent that the request pertains to changes from the draft to the final permit decision.

- H. Information and Copying.** The Report of Waste Discharge, related supporting documents, and comments received are on file and may be inspected at the U.S. EPA and Regional Water Board addresses above at any time between 9:00 a.m. and 5:00 p.m., Monday through Friday. Copying

of documents may be arranged by calling the U.S. EPA at (415) 972-3524 or the Regional Water Board at (510) 622-2300.

- I. Register of Interested Persons.** Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.
- J. Additional Information.** Requests for additional information or questions regarding this Order should be directed to Robyn Stuber at (415) 972-3524 or [stuber.robyn@epa.gov](mailto:stuber.robyn@epa.gov), or Jessica Watkins at (510) 622-2349 or [Jessica.Watkins@waterboards.ca.gov](mailto:Jessica.Watkins@waterboards.ca.gov).

City and County of San Francisco  
Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities,  
and Wastewater Collection System

TENTATIVE ORDER No. R2-2015-XXXX  
NPDES No. CA0037681

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

**ATTACHMENT G**

**REGIONAL STANDARD PROVISIONS AND MONITORING  
AND REPORTING REQUIREMENTS  
(SUPPLEMENT TO ATTACHMENT D)**

**For**

**NPDES WASTEWATER DISCHARGE PERMITS**

**March 2010**

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

**REGIONAL STANDARD PROVISIONS, AND MONITORING AND  
REPORTING REQUIREMENTS  
(SUPPLEMENT TO ATTACHMENT D)**

**FOR**

**NPDES WASTEWATER DISCHARGE PERMITS**

**APPLICABILITY**

This document applies to dischargers covered by a National Pollutant Discharge Elimination System (NPDES) permit. This document does not apply to Municipal Separate Storm Sewer System (MS4) NPDES permits.

The purpose of this document is to supplement the requirements of Attachment D, Standard Provisions. The requirements in this supplemental document are designed to ensure permit compliance through preventative planning, monitoring, recordkeeping, and reporting. In addition, this document requires proper characterization of issues as they arise, and timely and full responses to problems encountered. To provide clarity on which sections of Attachment D this document supplements, this document is arranged in the same format as Attachment D.

**I. STANDARD PROVISIONS - PERMIT COMPLIANCE**

**A. Duty to Comply – Not Supplemented**

**B. Need to Halt or Reduce Activity Not a Defense – Not Supplemented**

**C. Duty to Mitigate – This supplements I.C. of Standard Provisions (Attachment D)**

1. Contingency Plan - The Discharger shall maintain a Contingency Plan as originally required by Regional Water Board Resolution 74-10 and as prudent in accordance with current municipal facility emergency planning. The Contingency Plan shall describe procedures to ensure that existing facilities remain in, or are rapidly returned to, operation in the event of a process failure or emergency incident, such as employee strike, strike by suppliers of chemicals or maintenance services, power outage, vandalism, earthquake, or fire. The Discharger may combine the Contingency Plan and Spill Prevention Plan into one document. Discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below will be the basis for considering the discharge a willful and negligent violation of the permit pursuant to California Water Code Section 13387. The Contingency Plan shall, at a minimum, contain the provisions of a. through g. below.
  - a. Provision of personnel for continued operation and maintenance of sewerage facilities during employee strikes or strikes against contractors providing services.

- b. Maintenance of adequate chemicals or other supplies and spare parts necessary for continued operations of sewerage facilities.
  - c. Provisions of emergency standby power.
  - d. Protection against vandalism.
  - e. Expeditious action to repair failures of, or damage to, equipment and sewer lines.
  - f. Report of spills and discharges of untreated or inadequately treated wastes, including measures taken to clean up the effects of such discharges.
  - g. Programs for maintenance, replacement, and surveillance of physical condition of equipment, facilities, and sewer lines.
2. Spill Prevention Plan - The Discharger shall maintain a Spill Prevention Plan to prevent accidental discharges and minimize the effects of such events. The Spill Prevention Plan shall:
- a. Identify the possible sources of accidental discharge, untreated or partially treated waste bypass, and polluted drainage;
  - b. Evaluate the effectiveness of present facilities and procedures, and state when they became operational; and
  - c. Predict the effectiveness of the proposed facilities and procedures, and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

This Regional Water Board, after review of the Contingency and Spill Prevention Plans or their updated revisions, may establish conditions it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of the permit upon notice to the Discharger.

**D. Proper Operation & Maintenance – This supplements I.D of Standard Provisions (Attachment D)**

1. Operation and Maintenance (O&M) Manual - The Discharger shall maintain an O&M Manual to provide the plant and regulatory personnel with a source of information describing all equipment, recommended operational strategies, process control monitoring, and maintenance activities. To remain a useful and relevant document, the O&M Manual shall be kept updated to reflect significant changes in treatment facility equipment and operational practices. The O&M Manual shall be maintained in usable condition and be available for reference and use by all relevant personnel and Regional Water Board staff.
2. Wastewater Facilities Status Report - The Discharger shall regularly review, revise, or update, as necessary, its Wastewater Facilities Status Report. This report shall document how the Discharger operates and maintains its wastewater collection, treatment, and disposal facilities to ensure 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.

3. Proper Supervision and Operation of Publicly Owned Treatment Works (POTWs) - POTWs shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Division 4, Chapter 14, Title 23 of the California Code of Regulations.

**E. Property Rights – Not Supplemented**

**F. Inspection and Entry – Not Supplemented**

**G. Bypass – Not Supplemented**

**H. Upset – Not Supplemented**

**I. Other – This section is an addition to Standard Provisions (Attachment D)**

1. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code Section 13050.
2. Collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater, except in cases where excluding the public is infeasible, such as private property. If public contact with wastewater could reasonably occur on public property, warning signs shall be posted.
3. If the Discharger submits a timely and complete Report of Waste Discharge for permit reissuance, this permit continues in force and effect until a new permit is issued or the Regional Water Board rescinds the permit.

**J. Storm Water – This section is an addition to Standard Provisions (Attachment D)**

These provisions apply to facilities that do not direct all storm water flows from the facility to the wastewater treatment plant headworks.

**1. Storm Water Pollution Prevention Plan (SWPP Plan)**

The SWPP Plan shall be designed in accordance with good engineering practices and shall address the following objectives:

- a. To identify pollutant sources that may affect the quality of storm water discharges; and
- b. To identify, assign, and implement control measures and management practices to reduce pollutants in storm water discharges.

The SWPP Plan may be combined with the existing Spill Prevention Plan as required in accordance with Section C.2. The SWPP Plan shall be retained on-site and made available upon request of a representative of the Regional Water Board.



## 2. Source Identification

The SWPP Plan shall provide a description of potential sources that may be expected to add significant quantities of pollutants to storm water discharges, or may result in non-storm water discharges from the facility. The SWPP Plan shall include, at a minimum, the following items:

- a. A topographical map (or other acceptable map if a topographical map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing the wastewater treatment facility process areas, surface water bodies (including springs and wells), and discharge point(s) where the facility's storm water discharges to a municipal storm drain system or other points of discharge to waters of the State. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.
- b. A site map showing the following:
  - 1) Storm water conveyance, drainage, and discharge structures;
  - 2) An outline of the storm water drainage areas for each storm water discharge point;
  - 3) Paved areas and buildings;
  - 4) Areas of actual or potential pollutant contact with storm water or release to storm water, including but not limited to outdoor storage and process areas; material loading, unloading, and access areas; and waste treatment, storage, and disposal areas;
  - 5) Location of existing storm water structural control measures (i.e., berms, coverings, etc.);
  - 6) Surface water locations, including springs and wetlands; and
  - 7) Vehicle service areas.
- c. A narrative description of the following:
  - 1) Wastewater treatment process activity areas;
  - 2) Materials, equipment, and vehicle management practices employed to minimize contact of significant materials of concern with storm water discharges;
  - 3) Material storage, loading, unloading, and access areas;
  - 4) Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharges; and
  - 5) Methods of on-site storage and disposal of significant materials.
- d. A list of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.

### 3. Storm Water Management Controls

The SWPP Plan shall describe the storm water management controls appropriate for the facility and a time schedule for fully implementing such controls. The appropriateness and priorities of controls in the SWPP Plan shall reflect identified potential sources of pollutants. The description of storm water management controls to be implemented shall include, as appropriate:

a. Storm water pollution prevention personnel

Identify specific individuals (and job titles) that are responsible for developing, implementing, and reviewing the SWPP Plan.

b. Good housekeeping

Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm drain conveyance system.

c. Spill prevention and response

Identify areas where significant materials can spill into or otherwise enter storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, and cleanup equipment and procedures shall be identified, as appropriate. The necessary equipment to implement a cleanup shall be available, and personnel shall be trained in proper response, containment, and cleanup of spills. Internal reporting procedures for spills of significant materials shall be established.

d. Source control

Source controls include, for example, elimination or reduction of the use of toxic pollutants, covering of pollutant source areas, sweeping of paved areas, containment of potential pollutants, labeling of all storm drain inlets with "No Dumping" signs, isolation or separation of industrial and non-industrial pollutant sources so that runoff from these areas does not mix, etc.

e. Storm water management practices

Storm water management practices are practices other than those that control the sources of pollutants. Such practices include treatment or conveyance structures, such as drop inlets, channels, retention and detention basins, treatment vaults, infiltration galleries, filters, oil/water separators, etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharges shall be implemented and design criteria shall be described.

f. Sediment and erosion control

Measures to minimize erosion around the storm water drainage and discharge points, such as riprap, revegetation, slope stabilization, etc., shall be described.

g. Employee training

Employee training programs shall inform all personnel responsible for implementing the SWPP Plan. Training shall address spill response, good housekeeping, and material management practices. New employee and refresher training schedules shall be identified.

h. Inspections

All inspections shall be done by trained personnel. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering storm water discharges. A tracking or follow up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

i. Records

A tracking and follow-up procedure shall be described to ensure that adequate response and corrective actions have been taken in response to inspections.

**4. Annual Verification of SWPP Plan**

An annual facility inspection shall be conducted to verify that all elements of the SWPP Plan are accurate and up-to-date. The results of this review shall be reported in the Annual Report to the Regional Water Board described in Section V.C.f.

**K. Biosolids Management – This section is an addition to Standard Provisions (Attachment D)**

Biosolids must meet the following requirements prior to land application. The Discharger must either demonstrate compliance or, if it sends the biosolids to another party for further treatment or distribution, must give the recipient the information necessary to ensure compliance.

1. Exceptional quality biosolids meet the pollutant concentration limits in Table III of 40 CFR Part 503.13, Class A pathogen limits, and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8). Such biosolids do not have to be tracked further for compliance with general requirements (503.12) and management practices (503.14).
2. Biosolids used for agricultural land, forest, or reclamation shall meet the pollutant limits in Table I (ceiling concentrations) and Table II or Table III (cumulative loadings or pollutant concentration limits) of 503.13. They shall also meet the general requirements (503.12) and management practices (503.14) (if not exceptional quality biosolids) for Class A or Class B pathogen levels with associated access restrictions (503.32) and one of the 10 vector attraction reduction requirements in 503.33(b)(1)-(b)(10).
3. Biosolids used for lawn or home gardens must meet exceptional quality biosolids limits.
4. Biosolids sold or given away in a bag or other container must meet the pollutant limits in either Table III or Table IV (pollutant concentration limits or annual pollutant loading rate limits) of 503.13. If Table IV is used, a label or information sheet must be attached to the biosolids packing that explains Table IV (see 503.14). The biosolids must also meet the Class A pathogen limits and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8).

## II. STANDARD PROVISIONS – PERMIT ACTION – Not Supplemented

## III. STANDARD PROVISIONS – MONITORING

### A. Sampling and Analyses – This section is a supplement to III.A and III.B of Standard Provisions (Attachment D)

#### 1. Use of Certified Laboratories

Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with California Water Code Section 13176.

#### 2. Use of Appropriate Minimum Levels

Table C lists the suggested analytical methods for the 126 priority pollutants and other toxic pollutants that should be used, unless a particular method or minimum level (ML) is required in the MRP.

For priority pollutant monitoring, when there is more than one ML value for a given substance, the Discharger may select any one of the analytical methods cited in Table C for compliance determination, or any other method described in 40 CFR part 136 or approved by U.S. EPA (such as the 1600 series) if authorized by the Regional Water Board. However, the ML must be below the effluent limitation and water quality objective. If no ML value is below the effluent limitation and water quality objective, then the method must achieve an ML no greater than the lowest ML value indicated in Table C. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

#### 3. Frequency of Monitoring

The minimum schedule of sampling analysis is specified in the MRP portion of the permit.

##### a. Timing of Sample Collection

- 1) The Discharger shall collect samples of influent on varying days selected at random and shall not include any plant recirculation or other sidestream wastes, unless otherwise stipulated by the MRP.
- 2) The Discharger shall collect samples of effluent on days coincident with influent sampling unless otherwise stipulated by the MRP or the Executive Officer. The Executive Officer may approve an alternative sampling plan if it is demonstrated to be representative of plant discharge flow and in compliance with all other permit requirements.
- 3) The Discharger shall collect grab samples of effluent during periods of day-time maximum peak effluent flows (or peak flows through secondary treatment units for facilities that recycle effluent flows).

- 4) Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay test the MRP requires. During the course of the test, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event a bioassay test does not comply with permit limits, the Discharger shall analyze these retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limits.
  - i. The Discharger shall perform bioassay tests on final effluent samples; when chlorine is used for disinfection, bioassay tests shall be performed on effluent after chlorination-dechlorination; and
  - ii. The Discharger shall analyze for total ammonia nitrogen and calculate the amount of un-ionized ammonia whenever test results fail to meet the percent survival specified in the permit.
- b. Conditions Triggering Accelerated Monitoring
  - 1) If the results from two consecutive samples of a constituent monitored in a 30-day period exceed the monthly average limit for any parameter (or if the required sampling frequency is once per month and the monthly sample exceeds the monthly average limit), the Discharger shall, within 24 hours after the results are received, increase its sampling frequency to daily until the results from the additional sampling show that the parameter is in compliance with the monthly average limit.
  - 2) If any maximum daily limit is exceeded, the Discharger shall increase its sampling frequency to daily within 24 hours after the results are received that indicate the exceedance of the maximum daily limit until two samples collected on consecutive days show compliance with the maximum daily limit.
  - 3) If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single acute bioassay test is less than 70 percent), the Discharger shall initiate a new test as soon as practical, and the Discharger shall investigate the cause of the mortalities and report its findings in the next self monitoring report (SMR).
  - 4) The Discharger shall calibrate chlorine residual analyzers against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, the Discharger shall collect grab samples at least every 30 minutes until compliance with the limit is achieved, unless the Discharger monitors chlorine residual continuously. In such cases, the Discharger shall continue to conduct continuous monitoring as required by its permit.
  - 5) When a bypass occurs (except one subject to provision III.A.3.b.6 below), the Discharger shall monitor flows and collect samples on a daily basis for all constituents at affected discharge points that have effluent limits for the duration of the bypass (including acute toxicity using static renewals), except chronic toxicity, unless otherwise stipulated by the MRP.
  - 6) Unless otherwise stipulated by the MRP, when a bypass approved pursuant to Attachment D, Standard Provisions, Sections I.G.2 or I.G.4, occurs, the Discharger shall monitor flows and, using appropriate procedures as specified in the MRP, collect and retain samples for affected

discharge points on a daily basis for the duration of the bypass. The Discharger shall analyze for total suspended solids (TSS) using 24-hour composites (or more frequent increments) and for bacteria indicators with effluent limits using grab samples. If TSS exceeds 45 mg/L in any composite sample, the Discharger shall also analyze the retained samples for that discharge for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. Additionally, at least once each year, the Discharger shall analyze the retained samples for one approved bypass discharge event for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

c. Storm Water Monitoring

The requirements of this section only apply to facilities that are not covered by an NPDES permit for storm water discharges and where not all site storm drainage from process areas (i.e., areas of the treatment facility where chemicals or wastewater could come in contact with storm water) is directed to the headworks. For storm water not directed to the headworks during the wet season (October 1 to April 30), the Discharger shall:

- 1) Conduct visual observations of the storm water discharge locations during daylight hours at least once per month during a storm event that produces significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor, etc.
- 2) Measure (or estimate) the total volume of storm water discharge, collect grab samples of storm water discharge from at least two storm events that produce significant storm water discharge, and analyze the samples for oil and grease, pH, TSS, and specific conductance.

The grab samples shall be taken during the first 30 minutes of the discharge. If collection of the grab samples during the first 30 minutes is impracticable, grab samples may be taken during the first hour of the discharge, and the Discharger shall explain in the Annual Report why the grab sample(s) could not be taken in the first 30 minutes.

- 3) Testing for the presence of non-storm water discharges shall be conducted no less than twice during the dry season (May 1 to September 30) at all storm water discharge locations. Tests may include visual observations of flows, stains, sludges, odors, and other abnormal conditions; dye tests; TV line surveys; or analysis and validation of accurate piping schematics. Records shall be maintained describing the method used, date of testing, locations observed, and test results.
- 4) Samples shall be collected from all locations where storm water is discharged. Samples shall represent the quality and quantity of storm water discharged from the facility. If a facility discharges storm water at multiple locations, the Discharger may sample a reduced number of locations if it establishes and documents through the monitoring program that storm water discharges from different locations are substantially identical.
- 5) Records of all storm water monitoring information and copies of all reports required by the permit shall be retained for a period of at least three years from the date of sample, observation, or report.

d. Receiving Water Monitoring

The requirements of this section only apply when the MRP requires receiving water sampling.

- 1) Receiving water samples shall be collected on days coincident with effluent sampling for conventional pollutants.
- 2) Receiving water samples shall be collected at each station on each sampling day during the period within one hour following low slack water. Where sampling during lower slack water is impractical, sampling shall be performed during higher slack water. Samples shall be collected within the discharge plume and down current of the discharge point so as to be representative, unless otherwise stipulated in the MRP.
- 3) Samples shall be collected within one foot of the surface of the receiving water, unless otherwise stipulated in the MRP.

**B. Biosolids Monitoring – This section supplements III.B of Standard Provisions (Attachment D)**

When biosolids are sent to a landfill, sent to a surface disposal site, or applied to land as a soil amendment, they must be monitored as follows:

**1. Biosolids Monitoring Frequency**

Biosolids disposal must be monitored at the following frequency:

<u>Metric tons biosolids/365 days</u>	<u>Frequency</u>
0-290	Once per year
290-1500	Quarterly
1500-15,000	Six times per year
Over 15,000	Once per month

(Metric tons are on a dry weight basis)

**2. Biosolids Pollutants to Monitor**

Biosolids shall be monitored for the following constituents:

- Land Application: Arsenic, cadmium, copper, mercury, molybdenum, nickel, lead, selenium, and zinc
- Municipal Landfill: Paint filter test (pursuant to 40 CFR 258)
- Biosolids-only Landfill or Surface Disposal Site (if no liner and leachate system): arsenic, chromium, and nickel

**C. Standard Observations – This section is an addition to III of Standard Provisions (AttachmentD)**

## 1. Receiving Water Observations

The requirements of this section only apply when the MRP requires standard observations of the receiving water. Standard observations shall include the following:

- a. *Floating and suspended materials* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- b. *Discoloration and turbidity*: description of color, source, and size of affected area.
- c. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.
- d. *Beneficial water use*: presence of water-associated waterfowl or wildlife, fisherpeople, and other recreational activities in the vicinity of each sampling station.
- e. *Hydrographic condition*: time and height of corrected high and low tides (corrected to nearest National Oceanic and Atmospheric Administration location for the sampling date and time of sample collection).
- f. *Weather conditions*:
  - 1) Air temperature; and
  - 2) Total precipitation during the five days prior to observation.

## 2. Wastewater Effluent Observations

The requirements of this section only apply when the MRP requires wastewater effluent standard observations. Standard observations shall include the following:

- a. *Floating and suspended material of wastewater origin* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence.
- b. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.

## 3. Beach and Shoreline Observations

The requirements of this section only apply when the MRP requires beach and shoreline standard observations. Standard observations shall include the following:

- a. *Material of wastewater origin*: presence or absence, description of material, estimated size of affected area, and source.
- b. *Beneficial use*: estimate number of people participating in recreational water contact, non-water contact, or fishing activities.

## 4. Land Retention or Disposal Area Observations



The requirements of this section only apply to facilities with on-site surface impoundments or disposal areas that are in use. This section applies to both liquid and solid wastes, whether confined or unconfined. The Discharger shall conduct the following for each impoundment:

- a. Determine the amount of freeboard at the lowest point of dikes confining liquid wastes.
- b. Report evidence of leaching liquid from area of confinement and estimated size of affected area. Show affected area on a sketch and volume of flow (e.g., gallons per minute [gpm]).
- c. Regarding odor, describe presence or absence, characterization, source, distance of travel, and wind direction.
- d. Estimate number of waterfowl and other water-associated birds in the disposal area and vicinity.

#### 5. Periphery of Waste Treatment and/or Disposal Facilities Observations

The requirements of this section only apply when the MRP specifies periphery standard observations. Standard observations shall include the following:

- a. *Odor*: presence or absence, characterization, source, and distance of travel.
- b. *Weather conditions*: wind direction and estimated velocity.

### IV. STANDARD PROVISIONS – RECORDS

#### A. Records to be Maintained – This supplements IV.A of Standard Provisions (Attachment D)

The Discharger shall maintain records in a manner and at a location (e.g., wastewater treatment plant or Discharger offices) such that the records are accessible to Regional Water Board staff. The minimum period of retention specified in Section IV, Records, of the Federal Standard Provisions shall be extended during the course of any unresolved litigation regarding the subject discharge, or when requested by the Regional Water Board or Regional Administrator of U.S. EPA, Region IX.

A copy of the permit shall be maintained at the discharge facility and be available at all times to operating personnel.

#### B. Records of monitoring information shall include – This supplements IV.B of Standard Provision (Attachment D)

##### 1. Analytical Information

Records shall include analytical method detection limits, minimum levels, reporting levels, and related quantification parameters.

##### 2. Flow Monitoring Data

For all required flow monitoring (e.g., influent and effluent flows), the additional records shall include the following, unless otherwise stipulated by the MRP:

- a. Total volume for each day; and
- b. Maximum, minimum, and average daily flows for each calendar month.

### 3. Wastewater Treatment Process Solids

- a. For each treatment unit process that involves solids removal from the wastewater stream, records shall include the following:
  - 1) Total volume or mass of solids removed from each collection unit (e.g., grit, skimmings, undigested biosolids, or combination) for each calendar month or other time period as appropriate, but not to exceed annually; and
  - 2) Final disposition of such solids (e.g., landfill, other subsequent treatment unit).
- b. For final dewatered biosolids from the treatment plant as a whole, records shall include the following:
  - 1) Total volume or mass of dewatered biosolids for each calendar month;
  - 2) Solids content of the dewatered biosolids; and
  - 3) Final disposition of dewatered biosolids (disposal location and disposal method).

### 4. Disinfection Process

For the disinfection process, these additional records shall be maintained documenting process operation and performance:

- a. For bacteriological analyses:
  - 1) Wastewater flow rate at the time of sample collection; and
  - 2) Required statistical parameters for cumulative bacterial values (e.g., moving median or geometric mean for the number of samples or sampling period identified in this Order).
- b. For the chlorination process, when chlorine is used for disinfection, at least daily average values for the following:
  - 1) Chlorine residual of treated wastewater as it enters the contact basin (mg/L);
  - 2) Chlorine dosage (kg/day); and
  - 3) Dechlorination chemical dosage (kg/day).

### 5. Treatment Process Bypasses

A chronological log of all treatment process bypasses, including wet weather blending, shall include the following:

- a. Identification of the treatment process bypassed;
- b. Dates and times of bypass beginning and end;
- c. Total bypass duration;
- d. Estimated total bypass volume; and
- e. Description of, or reference to other reports describing, the bypass event, the cause, the corrective actions taken (except for wet weather blending that is in compliance with permit conditions), and any additional monitoring conducted.

**6. Treatment Facility Overflows**

This section applies to records for overflows at the treatment facility. This includes the headworks and all units and appurtenances downstream. The Discharger shall retain a chronological log of overflows at the treatment facility and records supporting the information provided in section V.E.2.

**C. Claims of Confidentiality – Not Supplemented**

**V. STANDARD PROVISIONS – REPORTING**

**A. Duty to Provide Information – Not Supplemented**

**B. Signatory and Certification Requirements – Not Supplemented**

**C. Monitoring Reports – This section supplements V.C of Standard Provisions (Attachment D)**

**1. Self Monitoring Reports**

For each reporting period established in the MRP, the Discharger shall submit an SMR to the Regional Water Board in accordance with the requirements listed in this document and at the frequency the MRP specifies. The purpose of the SMR is to document treatment performance, effluent quality, and compliance with the waste discharge requirements of this Order.

a. Transmittal letter

Each SMR shall be submitted with a transmittal letter. This letter shall include the following:

- 1) Identification of all violations of effluent limits or other waste discharge requirements found during the reporting period;
- 2) Details regarding violations: parameters, magnitude, test results, frequency, and dates;
- 3) Causes of violations;

- 4) Discussion of corrective actions taken or planned to resolve violations and prevent recurrences, and dates or time schedule of action implementation (if previous reports have been submitted that address corrective actions, reference to the earlier reports is satisfactory);
  - 5) Data invalidation (Data should not be submitted in an SMR if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate any measurement after it was submitted in an SMR, a letter shall identify the measurement suspected to be invalid and state the Discharger's intent to submit, within 60 days, a formal request to invalidate the measurement. This request shall include the original measurement in question, the reason for invalidating the measurement, all relevant documentation that supports invalidation [e.g., laboratory sheet, log entry, test results, etc.], and discussion of the corrective actions taken or planned [with a time schedule for completion] to prevent recurrence of the sampling or measurement problem.);
  - 6) If the Discharger blends, the letter shall describe the duration of blending events and certify whether blended effluent was in compliance with the conditions for blending; and
  - 7) Signature (The transmittal letter shall be signed according to Section V.B of this Order, Attachment D – Standard Provisions.).
- b. Compliance evaluation summary

Each report shall include a compliance evaluation summary. This summary shall include each parameter for which the permit specifies effluent limits, the number of samples taken during the monitoring period, and the number of samples that exceed applicable effluent limits.

c. Results of analyses and observations

- 1) Tabulations of all required analyses and observations, including parameter, date, time, sample station, type of sample, test result, method detection limit, method minimum level, and method reporting level, if applicable, signed by the laboratory director or other responsible official.
- 2) When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or nondetect (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
  - i. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - ii. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting limit, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a Pollutant Minimization Program, the Discharger shall not be deemed out of compliance.

- 3) Dioxin-TEQ Reporting: The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the quantifiable limit (reporting level), the method detection limit, and the measured concentration. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating dioxin-TEQ, the Discharger shall set congener concentrations below the minimum levels (ML) to zero. The Discharger shall calculate and report dioxin-TEQs using the following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

$$\text{Dioxin-TEQ} = \sum (C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where:  $C_x$  = measured or estimated concentration of congener  $x$   
 $\text{TEF}_x$  = toxicity equivalency factor for congener  $x$   
 $\text{BEF}_x$  = bioaccumulation equivalency factor for congener  $x$

**Table A**  
 Minimum Levels, Toxicity Equivalency Factors,  
 and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	1998 Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

d. Data reporting for results not yet available

The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in a timely manner. Certain analyses require additional time to complete analytical processes and report results. For cases where required monitoring parameters require additional time to complete analytical processes and reports, and results are not available in time to be included in the SMR for the subject monitoring period, the Discharger shall describe such circumstances in the SMR and include the data for these parameters and relevant discussions of any observed exceedances in the next SMR due after the results are available.

e. Flow data

The Discharger shall provide flow data tabulation pursuant to Section IV.B.2.

f. Annual self monitoring report requirements

By the date specified in the MRP, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the following:

- 1) Annual compliance summary table of treatment plant performance, including documentation of any blending events;
- 2) Comprehensive discussion of treatment plant performance and compliance with the permit (This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment, or disposal practices.);
- 3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater;
- 4) List of approved analyses, including the following:
  - (i) List of analyses for which the Discharger is certified;
  - (ii) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory shall not be submitted but be retained onsite); and
  - (iii) List of "waived" analyses, as approved;
- 5) Plan view drawing or map showing the Discharger's facility, flow routing, and sampling and observation station locations;
- 6) Results of annual facility inspection to verify that all elements of the SWPP Plan are accurate and up to date (only required if the Discharger does not route all storm water to the headworks of its wastewater treatment plant); and
- 7) Results of facility report reviews (The Discharger shall regularly review, revise, and update, as necessary, the O&M Manual, the Contingency Plan, the Spill Prevention Plan, and

Wastewater Facilities Status Report so that these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall include, in each Annual Report, a description or summary of review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure they are up-to-date.).

g. Report submittal

The Discharger shall submit SMRs to:

California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
Attn: NPDES Wastewater Division

h. Reporting data in electronic format

The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. If the Discharger chooses to submit SMRs electronically, the following shall apply:

- 1) *Reporting Method*: The Discharger shall submit SMRs electronically via a process approved by the Executive Officer (see, for example, the letter dated December 17, 1999, "Official Implementation of Electronic Reporting System [ERS]" and the progress report letter dated December 17, 2000).
- 2) *Monthly or Quarterly Reporting Requirements*: For each reporting period (monthly or quarterly as specified in the MRP), the Discharger shall submit an electronic SMR to the Regional Water Board in accordance with the provisions of Section V.C.1.a-e, except for requirements under Section V.C.1.c(1) where ERS does not have fields for dischargers to input certain information (e.g., sample time). However, until U.S. EPA approves the electronic signature or other signature technologies, Dischargers that use ERS shall submit a hard copy of the original transmittal letter, an ERS printout of the data sheet, and a violation report (a receipt of the electronic transmittal shall be retained by the Discharger). This electronic SMR submittal suffices for the signed tabulations specified under Section V.C.1.c(1).
- 3) *Annual Reporting Requirements*: Dischargers who have submitted data using the ERS for at least one calendar year are exempt from submitting the portion of the annual report required under Section V.C.1.f(1) and (3).

**D. Compliance Schedules** – Not supplemented

**E. Twenty-Four Hour Reporting** – This section supplements V.E of Standard Provision (Attachment D)

**1. Spill of Oil or Other Hazardous Material Reports**

- a. Within 24 hours of becoming aware of a spill of oil or other hazardous material that is not contained onsite and completely cleaned up, the Discharger shall report by telephone to the Regional Water Board at (510) 622-2369.
  - b. The Discharger shall also report such spills to the State Office of Emergency Services [telephone (800) 852-7550] only when the spills are in accordance with applicable reporting quantities for hazardous materials.
  - c. The Discharger shall submit a written report to the Regional Water Board within five working days following telephone notification unless directed otherwise by Regional Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:
    - 1) Date and time of spill, and duration if known;
    - 2) Location of spill (street address or description of location);
    - 3) Nature of material spilled;
    - 4) Quantity of material involved;
    - 5) Receiving water body affected, if any;
    - 6) Cause of spill;
    - 7) Estimated size of affected area;
    - 8) Observed impacts to receiving waters (e.g., oil sheen, fish kill, water discoloration);
    - 9) Corrective actions taken to contain, minimize, or clean up the spill;
    - 10) Future corrective actions planned to be taken to prevent recurrence, and schedule of implementation; and
    - 11) Persons or agencies notified.
- 2. Unauthorized Discharges from Municipal Wastewater Treatment Plants<sup>1</sup>**

The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and are consistent with and supercede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008, issued pursuant to California Water Code Section 13383.

- a. Two (2)-Hour Notification

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<sup>1</sup> California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.



For any unauthorized discharges that result in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services (telephone 800-852-7550), the local health officers or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board. The notification to the Regional Water Board shall be via the Regional Water Board's online reporting system at [www.wbers.net](http://www.wbers.net), and shall include the following:

- 1) Incident description and cause;
- 2) Location of threatened or involved waterway(s) or storm drains;
- 3) Date and time the unauthorized discharge started;
- 4) Estimated quantity and duration of the unauthorized discharge (to the extent known), and the estimated amount recovered;
- 5) Level of treatment prior to discharge (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on); and
- 6) Identity of the person reporting the unauthorized discharge.

b. 24-hour Certification

Within 24 hours, the Discharger shall certify to the Regional Water Board, at [www.wbers.net](http://www.wbers.net), that the State Office of Emergency Services and the local health officers or directors of environmental health with jurisdiction over the affected water bodies have been notified of the unauthorized discharge.

c. 5-Day Written Report

Within five business days, the Discharger shall submit a written report, via the Regional Water Board's online reporting system at [www.wbers.net](http://www.wbers.net), that includes, in addition to the information required above, the following:

- 1) Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;
- 2) Efforts implemented to minimize public exposure to the unauthorized discharge;
- 3) Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of water) and the extent of sampling if conducted;
- 4) Corrective measures taken to minimize the impact of the unauthorized discharge;
- 5) Measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future;
- 6) Summary of Spill Prevention Plan or O&M Manual modifications to be made, if necessary, to minimize the chances of future unauthorized discharges; and

- 7) Quantity and duration of the unauthorized discharge, and the amount recovered.
- d. Communication Protocol

To clarify the multiple levels of notification, certification, and reporting, the current communication requirements for unauthorized discharges from municipal wastewater treatment plants are summarized in Table B that follows.

**Table B**  
 Summary of Communication Requirements for Unauthorized Discharges<sup>1</sup> from  
 Municipal Wastewater Treatment Plants

Discharger is required to:	Agency Receiving Information	Time frame	Method for Contact
1. Notify	California Emergency Management Agency (Cal EMA)	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Telephone – (800) 852-7550 (obtain a control number from Cal EMA)
	Local health department	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Depends on local health department
	Regional Water Board	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Electronic <sup>2</sup> <a href="http://www.wbers.net">www.wbers.net</a>
2. Certify	Regional Water Board	As soon as possible, but not later than <b>24 hours</b> after becoming aware of the unauthorized discharge.	Electronic <sup>3</sup> <a href="http://www.wbers.net">www.wbers.net</a>
3. Report	Regional Water Board	Within <b>5 business days</b> of becoming aware of the unauthorized discharge.	Electronic <sup>4</sup> <a href="http://www.wbers.net">www.wbers.net</a>

<sup>1</sup> California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

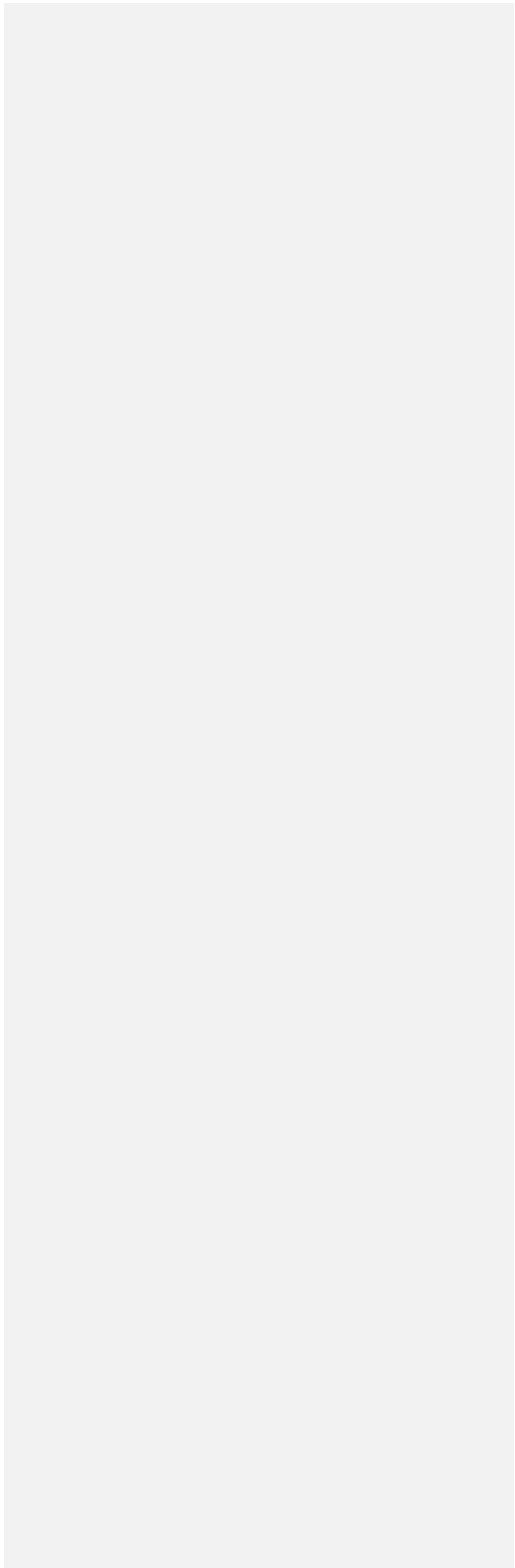
<sup>2</sup> In the event that the Discharger is unable to provide online notification within 2 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board’s spill hotline at (510) 622-2369 and convey the same information contained in the notification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the notification information into the Regional Water Board’s online system in electronic format.

<sup>3</sup> In most instances, the 2-hour notification will also satisfy 24-hour certification requirements. This is because the notification form includes fields for documenting that OES and the local health department have been contacted. In other words, if the Discharger is able to complete all the fields in the notification form within 2 hours, certification requirements are also satisfied. In the event that the Discharger is unable to provide online certification within 24 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board’s spill hotline at (510) 622-2369 and convey the same information contained in the certification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the certification information into the Regional Water Board’s online system in electronic format.

<sup>4</sup> If the Discharger cannot satisfy the 5-day reporting requirements via the Regional Water Board’s online reporting system, it shall submit a written report (preferably electronically in pdf) to the appropriate Regional Water Board case manager. In cases where the Discharger cannot satisfy the 5-day reporting requirements via the online reporting system, it must still complete the Regional Water Board’s online reporting requirements within 15 calendar days of becoming aware of the unauthorized discharge.

City and County of San Francisco  
Oceanside Water Pollution Control Plant, Westside Wet Weather Facilities,  
and Wastewater Collection System

TENTATIVE ORDER No. R2-2015-XXXX  
NPDES No. CA0037681



**F. Planned Changes** – Not supplemented

**G. Anticipated Noncompliance** – Not supplemented

**H. Other Noncompliance** – Not supplemented

**I. Other Information** – Not supplemented

**VI. STANDARD PROVISION – ENFORCEMENT** – Not Supplemented

**VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS** – Not Supplemented

**VIII. DEFINITIONS** – This section is an addition to Standard Provisions (Attachment D)

More definitions can be found in Attachment A of this NPDES Permit.

1. Arithmetic Calculations

- a. Geometric mean is the antilog of the log mean or the back-transformed mean of the logarithmically transformed variables, which is equivalent to the multiplication of the antilogarithms. The geometric mean can be calculated with either of the following equations:

$$\text{Geometric Mean} = \text{Anti log} \left( \frac{1}{N} \sum_{i=1}^N \text{Log}(C_i) \right)$$

or

$$\text{Geometric Mean} = (C_1 * C_2 * \dots * C_N)^{1/N}$$

Where “N” is the number of data points for the period analyzed and “C” is the concentration for each of the “N” data points.

- b. Mass emission rate is obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.345}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.785}{N} \sum_{i=1}^N Q_i C_i$$

In which “N” is the number of samples analyzed in any calendar day and “Q<sub>i</sub>” and “C<sub>i</sub>” are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the “N” grab samples that may be taken in any calendar day. If a composite sample is taken, “C<sub>i</sub>” is the concentration measured in the composite sample and “Q<sub>i</sub>” is the average flow rate occurring during the period over which the samples are composited. The daily concentration of a constituent measured over any calendar day shall be determined from the flow-weighted average of the same constituent in the combined waste streams as follows:

$$C_d = \text{Average daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

In which “N” is the number of component waste streams and “Q” and “C” are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the “N” waste streams. “Q<sub>t</sub>” is the total flow rate of the combined waste streams.

- c. Maximum allowable mass emission rate, whether for a 24-hour, weekly 7-day, monthly 30-day, or 6-month period, is a limitation expressed as a daily rate determined with the formulas in the paragraph above, using the effluent concentration limit specified in the permit for the period and the specified allowable flow.
- d. POTW removal efficiency is the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities (expressed as a percentage). The Discharger shall determine removal efficiencies using monthly averages (by calendar month unless otherwise specified) of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

$$\text{Removal Efficiency (\%)} = 100 \times [1 - (\text{Effluent Concentration} / \text{Influent Concentration})]$$

2. Biosolids means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow and underflow in the solids handling parts of the wastewater treatment system.
3. Blending is the practice of recombining wastewater that has been biologically treated with wastewater that has bypassed around biological treatment units.
4. Bottom sediment sample is (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, or (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while the boat is anchored and analyzed separately for macroinvertebrates.
5. Composite sample is a sample composed of individual grab samples collected manually or by an automatic sampling device on the basis of time or flow as specified in the MRP. For flow-based composites, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent (+/-5%) of the representative flow rate of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples comprising time-based composite samples shall be collected at intervals not greater than those specified in the MRP. The quantity of each grab sample comprising a time-based composite sample shall be a set of flow proportional volumes as specified in the MRP. If a particular time-based or flow-based composite sampling protocol is not specified in the MRP, the Discharger shall determine and implement the most representative sampling protocol for the given parameter subject to Executive Officer approval.
6. Depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled. The Discharger shall

collect depth-integrated samples in such a manner that the collected sample will be representative of the waste or water body at that sampling point.

7. Flow sample is an accurate measurement of the average daily flow volume using a properly calibrated and maintained flow measuring device.
8. Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the wastewater is collected.
9. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with receiving water around the point of discharge.
10. Overflow is the intentional or unintentional spilling or forcing out of untreated or partially treated wastes from a transport system (e.g., through manholes, at pump stations, and at collection points) upstream from the treatment plant headworks or from any part of a treatment plant facility.
11. Priority pollutants are those constituents referred to in 40 CFR Part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule, the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.
12. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.
13. Toxic pollutant means any pollutant listed as toxic under federal Clean Water Act section 307(a)(1) or under 40 CFR 401.15.
14. Untreated waste is raw wastewater.
15. Waste, waste discharge, discharge of waste, and discharge are used interchangeably in the permit. The requirements of the permit apply to the entire volume of water, and the material therein, that is disposed of to surface and ground waters of the State of California.

**Table C**  
 List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method <sup>5</sup>	Minimum Levels <sup>6</sup> (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
1.	Antimony	204.2					10	5	50	0.5	5	0.5		1000
2.	Arsenic	206.3				20		2	10	2	2	1		1000
3.	Beryllium						20	0.5	2	0.5	1			1000
4.	Cadmium	200 or 213					10	0.5	10	0.25	0.5			1000
5a.	Chromium (III)	SM 3500												
5b.	Chromium (VI)	SM 3500				10	5							1000
	Chromium (total) <sup>7</sup>	SM 3500					50	2	10	0.5	1			1000
6.	Copper	200.9					25	5	10	0.5	2			1000
7.	Lead	200.9					20	5	5	0.5	2			10,000
8.	Mercury	1631 (note) <sup>8</sup>												
9.	Nickel	249.2					50	5	20	1	5			1000
10.	Selenium	200.8 or SM 3114B or C						5	10	2	5	1		1000
11.	Silver	272.2					10	1	10	0.25	2			1000
12.	Thallium	279.2					10	2	10	1	5			1000
13.	Zinc	200 or 289					20		20	1	10			
14.	Cyanide	SM 4500 CN <sup>-</sup> C or I				5								
15.	Asbestos (only required for dischargers to MUN waters) <sup>9</sup>	0100.2 <sup>10</sup>												
16.	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613												
17.	Acrolein	603	2.0	5										
18.	Acrylonitrile	603	2.0	2										
19.	Benzene	602	0.5	2										
33.	Ethylbenzene	602	0.5	2										
39.	Toluene	602	0.5	2										
20.	Bromoform	601	0.5	2										
21.	Carbon Tetrachloride	601	0.5	2										
22.	Chlorobenzene	601	0.5	2										

<sup>5</sup> The suggested method is the U.S. EPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another U.S. EPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

<sup>6</sup> Minimum levels are from the *State Implementation Policy*. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., U.S. EPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

<sup>7</sup> Analysis for total chromium may be substituted for analysis of chromium (III) and chromium (VI) if the concentration measured is below the lowest hexavalent chromium criterion (11 µg/l).

<sup>8</sup> The Discharger shall use ultra-clean sampling ( U.S. EPA Method 1669) and ultra-clean analytical methods ( U.S. EPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 µg/l).

<sup>9</sup> MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

<sup>10</sup> Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters, U.S. EPA 600/R-94-134, June 1994.



CTR No.	Pollutant/Parameter	Analytical Method <sup>5</sup>	Minimum Levels <sup>6</sup> (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
23.	Chlorodibromomethane	601	0.5	2										
24.	Chloroethane	601	0.5	2										
25.	2-Chloroethylvinyl Ether	601	1	1										
26.	Chloroform	601	0.5	2										
75.	1,2-Dichlorobenzene	601	0.5	2										
76.	1,3-Dichlorobenzene	601	0.5	2										
77.	1,4-Dichlorobenzene	601	0.5	2										
27.	Dichlorobromomethane	601	0.5	2										
28.	1,1-Dichloroethane	601	0.5	1										
29.	1,2-Dichloroethane	601	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2										
31.	1,2-Dichloropropane	601	0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2										
34.	Methyl Bromide or Bromomethane	601	1.0	2										
35.	Methyl Chloride or Chloromethane	601	0.5	2										
36.	Methylene Chloride or Dichloromethane	601	0.5	2										
37.	1,1,2,2-Tetrachloroethane	601	0.5	1										
38.	Tetrachloroethylene	601	0.5	2										
40.	1,2-Trans-Dichloroethylene	601	0.5	1										
41.	1,1,1-Trichloroethane	601	0.5	2										
42.	1,1,2-Trichloroethane	601	0.5	2										
43.	Trichloroethene	601	0.5	2										
44.	Vinyl Chloride	601	0.5	2										
45.	2-Chlorophenol	604	2	5										
46.	2,4-Dichlorophenol	604	1	5										
47.	2,4-Dimethylphenol	604	1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5										
49.	2,4-Dinitrophenol	604	5	5										
50.	2-Nitrophenol	604		10										
51.	4-Nitrophenol	604	5	10										
52.	3-Methyl-4-Chlorophenol	604	5	1										
53.	Pentachlorophenol	604	1	5										
54.	Phenol	604	1	1		50								
55.	2,4,6-Trichlorophenol	604	10	10										
56.	Acenaphthene	610 HPLC	1	1	0.5									
57.	Acenaphthylene	610 HPLC		10	0.2									
58.	Anthracene	610 HPLC		10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5										
61.	Benzo(a)Pyrene	610 HPLC		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzo fluoranthene	610 HPLC		10	10									
63.	Benzo(ghi)Perylene	610 HPLC		5	0.1									
64.	Benzo(k)Fluoranthene	610 HPLC		10	2									
74.	Dibenzo(a,h)Anthracene	610 HPLC		10	0.1									

CTR No.	Pollutant/Parameter	Analytical Method <sup>5</sup>	Minimum Levels <sup>6</sup> (µg/l)												
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP	
86.	Fluoranthene	610 HPLC	10	1	0.05										
87.	Fluorene	610 HPLC		10	0.1										
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05										
100.	Pyrene	610 HPLC		10	0.05										
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5											
70.	Butylbenzyl Phthalate	606 or 625	10	10											
79.	Diethyl Phthalate	606 or 625	10	2											
80.	Dimethyl Phthalate	606 or 625	10	2											
81.	Di-n-Butyl Phthalate	606 or 625		10											
84.	Di-n-Octyl Phthalate	606 or 625		10											
59.	Benzidine	625		5											
65.	Bis(2-Chloroethoxy)Methane	625		5											
66.	Bis(2-Chloroethyl)Ether	625	10	1											
67.	Bis(2-Chloroisopropyl)Ether	625	10	2											
69.	4-Bromophenyl Phenyl Ether	625	10	5											
71.	2-Chloronaphthalene	625		10											
72.	4-Chlorophenyl Phenyl Ether	625		5											
73.	Chrysene	625		10	5										
78.	3,3'-Dichlorobenzidine	625		5											
82.	2,4-Dinitrotoluene	625	10	5											
83.	2,6-Dinitrotoluene	625		5											
85.	1,2-Diphenylhydrazine (note) <sup>11</sup>	625		1											
88.	Hexachlorobenzene	625	5	1											
89.	Hexachlorobutadiene	625	5	1											
90.	Hexachlorocyclopentadiene	625	5	5											
91.	Hexachloroethane	625	5	1											
93.	Isophorone	625	10	1											
94.	Naphthalene	625	10	1	0.2										
95.	Nitrobenzene	625	10	1											
96.	N-Nitrosodimethylamine	625	10	5											
97.	N-Nitrosodi-n-Propylamine	625	10	5											
98.	N-Nitrosodiphenylamine	625	10	1											
99.	Phenanthrene	625		5	0.05										
101.	1,2,4-Trichlorobenzene	625	1	5											
102.	Aldrin	608	0.005												
103.	α-BHC	608	0.01												
104.	β-BHC	608	0.005												
105.	γ-BHC (Lindane)	608	0.02												
106.	δ-BHC	608	0.005												
107.	Chlordane	608	0.1												
108.	4,4'-DDT	608	0.01												
109.	4,4'-DDE	608	0.05												
110.	4,4'-DDD	608	0.05												

<sup>11</sup> Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 ug/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.

CTR No.	Pollutant/Parameter	Analytical Method <sup>5</sup>	Minimum Levels <sup>6</sup> (µg/l)												
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP	
111.	Dieldrin	608	0.01												
112.	Endosulfan (alpha)	608	0.02												
113.	Endosulfan (beta)	608	0.01												
114.	Endosulfan Sulfate	608	0.05												
115.	Endrin	608	0.01												
116.	Endrin Aldehyde	608	0.01												
117.	Heptachlor	608	0.01												
118.	Heptachlor Epoxide	608	0.01												
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5												
126.	Toxaphene	608	0.5												

**ATTACHMENT H – PRETREATMENT REQUIREMENTS**

CALIFORNIA REGIONAL WATER QUALITY CONTROL  
BOARD  
SAN FRANCISCO BAY REGION

**ATTACHMENT H**  
PRETREATMENT PROGRAM PROVISIONS  
For  
NPDES POTW WASTEWATER DISCHARGE PERMITS

March 2011  
(Corrected May 2011)

**Commented [A99]:** This is okay. It matches standard language that is now in all Region 2 permits.

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### Attachment H: Pretreatment Program Provisions

- A.** The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 C.F.R. 403, including any regulatory revisions to Part 403. Where a Part 403 revision is promulgated after the effective date of the Discharger's permit and places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the issuance date of this permit or six months from the effective date of the Part 403 revisions, whichever comes later.

(If the Discharger cannot complete the required actions within the above six-month period due to the need to process local adoption of sewer use ordinance modifications or other substantial pretreatment program modifications, the Discharger shall notify the Executive Officer in writing at least 60 days prior to the six-month deadline. The written notification shall include a summary of completed required actions, an explanation for why the six month deadline cannot be met, and a proposed timeframe to complete the rest of the required actions as soon as practical but not later than within twelve months of the issuance date of this permit or twelve months of the effective date of the Part 403 revisions, whichever comes later. The Executive Officer will notify the Discharger in writing within 30 days of receiving the request if the extension is not approved.)

The United States Environmental Protection Agency (U.S. EPA), the State and/or other appropriate parties may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the Clean Water Act (Act).

- B.** The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Discharger shall cause nondomestic users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
- C.** The Discharger shall perform the pretreatment functions as required in 40 C.F.R. 403 and amendments or modifications thereto including, but not limited to:
1. Implement the necessary legal authorities to fully implement the pretreatment regulations as provided in 40 C.F.R. 403.8(f)(1);
  2. Implement the programmatic functions as provided in 40 C.F.R. 403.8(f)(2);
  3. Publish an annual list of nondomestic users in significant noncompliance as provided per 40 C.F.R. 403.8(f)(2)(viii);
  4. Provide for the requisite funding and personnel to implement the pretreatment program as provided in 40 C.F.R. 403.8(f)(3); and
  5. Enforce the national pretreatment standards for prohibited discharges and categorical standards as provided in 40 C.F.R. 403.5 and 403.6, respectively.

- D.** The Discharger shall submit annually a report to U.S. EPA Region 9, the State Water Board and the Regional Water Board describing its pretreatment program activities over the previous calendar year. In the event that the Discharger is not in compliance with any conditions or requirements of the Pretreatment Program, the Discharger shall also include the reasons for noncompliance and a plan and schedule for achieving compliance. The report shall contain, but is not limited to, the information specified in Appendix H-1 entitled, "Requirements for Pretreatment Annual Reports." The annual report is due each year on February 28.
- E.** The Discharger shall submit a pretreatment semiannual report to U.S. EPA Region 9, the State Water Board and the Regional Water Board describing the status of its significant industrial users (SIUs). The report shall contain, but is not limited to, information specified in Appendix H-2 entitled, "Requirements for Pretreatment Semiannual Reports." The semiannual report is due July 31 for the period January through June. The information for the period July through December of each year shall be included in the Annual Report identified in Appendix H-1. The Executive Officer may exempt the Discharger from the semiannual reporting requirements on a case by case basis subject to State Water Board and U.S. EPA's comment and approval.
- F.** The Discharger shall conduct the monitoring of its treatment plant's influent, effluent, and sludge (biosolids) as described in Appendix H-4 entitled, "Requirements for Influent, Effluent and Sludge (Biosolids) Monitoring." (The term "biosolids," as used in this Attachment, shall have the same meaning as wastewater treatment plant "sludge" and will be used from this point forward.) The Discharger shall evaluate the results of the sampling and analysis during the preparation of the semiannual and annual reports to identify any trends. Signing the certification statement used to transmit the reports shall be deemed to certify the Discharger has completed this data evaluation. A tabulation of the data shall be included in the pretreatment annual report as specified in Appendix H-4. The Executive Officer may require more or less frequent monitoring on a case by case basis.

## APPENDIX H-1

### REQUIREMENTS FOR PRETREATMENT ANNUAL REPORTS

The Pretreatment Annual Report is due each year on February 28 and shall contain activities conducted during the previous calendar year. The purpose of the Annual Report is to:

- Describe the status of the Discharger's pretreatment program; and
- Report on the effectiveness of the program, as determined by comparing the results of the preceding year's program implementation.

The report shall contain, at a minimum, the following information:

#### A. Cover Sheet

The cover sheet shall include:

1. The name(s) and National Pollutant Discharge Elimination System (NPDES) permit number(s) of the Discharger(s) that is part of the Pretreatment Program;
2. The name, address and telephone number of a pretreatment contact person;
3. The period covered in the report;
4. A statement of truthfulness; and
5. The dated signature of a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for overall operation of the Publicly Owned Treatment Works (POTW) (40 C.F.R. 403.12(m)).

#### B. Introduction

This section shall include:

1. Any pertinent background information related to the Discharger and/or the nondomestic user base of the area;
2. List of applicable interagency agreements used to implement the Discharger's pretreatment program (e.g., Memoranda of Understanding (MOU) with satellite sanitary sewer collection systems); and
3. A status summary of the tasks required by a Pretreatment Compliance Inspection (PCI), Pretreatment Compliance Audit (PCA), Cleanup and Abatement Order (CAO), or other pretreatment-related enforcement actions required by the Regional Water Board or the U.S. EPA. A more detailed discussion can be referenced and included in the section entitled, "Program Changes," if needed.



### **C. Definitions**

This section shall include a list of key terms and their definitions that the Discharger uses to describe or characterize elements of its pretreatment program, or the Discharger may provide a reference to its website if the applicable definitions are available on-line.

### **D. Discussion of Upset, Interference and Pass Through**

This section shall include a discussion of Upset, Interference or Pass Through incidents, if any, at the Discharger's treatment plant(s) that the Discharger knows of or suspects were caused by nondomestic user discharges. Each incident shall be described, at a minimum, consisting of the following information:

1. A description of what occurred;
2. A description of what was done to identify the source;
3. The name and address of the nondomestic user responsible;
4. The reason(s) why the incident occurred;
5. A description of the corrective actions taken; and
6. An examination of the local and federal discharge limits and requirements for the purposes of determining whether any additional limits or changes to existing requirements may be necessary to prevent other Upset, Interference or Pass Through incidents.

### **E. Influent, Effluent and Biosolids Monitoring Results**

The Discharger shall evaluate the influent, effluent and biosolids monitoring results as specified in Appendix H-4 in preparation of this report. The Discharger shall retain the analytical laboratory reports with the Quality Assurance and Quality Control (QA/QC) data validation and make these reports available upon request.

This section shall include:

1. Description of the sampling procedures and an analysis of the results (see Appendix H-4 for specific requirements);
2. Tabular summary of the compounds detected (compounds measured above the detection limit for the analytical method used) for the monitoring data generated during the reporting year as specified in Appendix H-4;
3. Discussion of the investigation findings into any contributing sources of the compounds that exceed NPDES limits; and
4. Graphical representation of the influent and effluent metal monitoring data for the past five years with a discussion of any trends.

## **F. Inspection, Sampling and Enforcement Programs**

This section shall include at a minimum the following information:

1. Inspections: Summary of the inspection program (e.g., criteria for determining the frequency of inspections and inspection procedures);
2. Sampling Events: Summary of the sampling program (e.g., criteria for determining the frequency of sampling and chain of custody procedures); and
3. Enforcement: Summary of Enforcement Response Plan (ERP) implementation including dates for adoption, last revision and submission to the Regional Water Board.

## **G. Updated List of Regulated SIUs**

This section shall contain a list of all of the federal categories that apply to SIUs regulated by the Discharger. The specific categories shall be listed including the applicable 40 C.F.R. subpart and section, and pretreatment standards (both maximum and average limits). Local limits developed by the Discharger shall be presented in a table including the applicability of the local limits to SIUs. If local limits do not apply uniformly to SIUs, specify the applicability in the tables listing the categorical industrial users (CIUs) and non-categorical SIUs. Tables developed in Sections 7A and 7B can be used to present or reference this information.

1. CIUs - Include a table that alphabetically lists the CIUs regulated by the Discharger as of the end of the reporting period. This list shall include:
  - a. Name;
  - b. Address;
  - c. Applicable federal category(ies);
  - d. Reference to the location where the applicable Federal Categorical Standards are presented in the report;
  - e. Identify all deletions and additions keyed to the list submitted in the previous annual report. All deletions shall be briefly explained (e.g., closure, name change, ownership change, reclassification, declassification); and
  - f. Information, calculations and data used to determine the limits for those CIUs for which a combined waste stream formula is applied.
2. Non-categorical SIUs - Include a table that alphabetically lists the SIUs not subject to any federal categorical standards that were regulated by the Discharger as of the end of the reporting period. This list shall include:
  - a. Name;

- b. Address;
- c. A brief description of the type of business;
- d. Identify all deletions and additions keyed to the list submitted in the previous annual report. All deletions shall be briefly explained (e.g., closure, name change, ownership change, reclassification, declassification); and
- e. Indicate the applicable discharge limits (e.g., different from local limits) to which the SIUs are subject and reference to the location where the applicable limits (e.g., local discharge limits) are presented in the report.

#### **H. SIU (categorical and non-categorical) Compliance Activities**

The information required in this section may be combined in the table developed in Section 7 above.

- 1. Inspection and Sampling Summary:** This section shall contain a summary of all the SIU inspections and sampling activities conducted by the Discharger and sampling activities conducted by the SIU over the reporting year to gather information and data regarding SIU compliance. The summary shall include:
  - a. The number of inspections and sampling events conducted for each SIU by the Discharger;
  - b. The number of sampling events conducted by the SIU. Identify SIUs that are operating under an approved Total Toxic Organic Management Plan;
  - c. The quarters in which the above activities were conducted; and
  - d. The compliance status of each SIU, delineated by quarter, and characterized using all applicable descriptions as given below:
    - (1) Consistent compliance;
    - (2) Inconsistent compliance;
    - (3) Significant noncompliance;
    - (4) On a compliance schedule to achieve compliance (include the date final compliance is required);
    - (5) Not in compliance and not on a compliance schedule; and
    - (6) Compliance status unknown, and why not.
- 2. Enforcement Summary:** This section shall contain a summary of SIU compliance and enforcement activities during the reporting year. The summary may be included in the summary table developed in section 8A and shall include the names and addresses of all SIUs affected by

the actions identified below. For each notice specified in enforcement action “i” through “iv,” indicate whether it was for an infraction of a federal or local standard/limit or requirement.

- a. Warning letters or notices of violations regarding SIUs’ apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements;
- b. Administrative Orders regarding the SIUs’ apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements;
- c. Civil actions regarding the SIUs’ apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements;
- d. Criminal actions regarding the SIUs’ apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements;
- e. Assessment of monetary penalties. Identify the amount of penalty in each case and reason for assessing the penalty;
- f. Order to restrict/suspend discharge to the Discharger; and
- g. Order to disconnect the discharge from entering the Discharger.

**3. July-December Semiannual Data:** For SIU violations/noncompliance during the semiannual reporting period from July 1 through December 31, provide the following information:

- a. Name and facility address of the SIU;
- b. Indicate if the SIU is subject to Federal Categorical Standards; if so, specify the category including the subpart that applies;
- c. For SIUs subject to Federal Categorical Standards, indicate if the violation is of a categorical or local standard;
- d. Indicate the compliance status of the SIU for the two quarters of the reporting period; and
- e. For violations/noncompliance identified in the reporting period, provide:
  - (1) The date(s) of violation(s);
  - (2) The parameters and corresponding concentrations exceeding the limits and the discharge limits for these parameters; and
  - (3) A brief summary of the noncompliant event(s) and the steps that are being taken to achieve compliance.

### **I. Baseline Monitoring Report Update**

This section shall provide a list of CIUs added to the pretreatment program since the last annual report. This list of new CIUs shall summarize the status of the respective Baseline Monitoring Reports (BMR). The BMR must contain the information specified in 40 C.F.R. 403.12(b). For each new CIU, the summary shall indicate when the BMR was due; when the CIU was notified by the Discharger of this requirement; when the CIU submitted the report; and/or when the report is due.

### **J. Pretreatment Program Changes**

This section shall contain a description of any significant changes in the Pretreatment Program during the past year including, but not limited to:

1. Legal authority;
2. Local limits;
3. Monitoring/ inspection program and frequency;
4. Enforcement protocol;
5. Program's administrative structure;
6. Staffing level;
7. Resource requirements;
8. Funding mechanism;
9. If the manager of the Discharger's pretreatment program changed, a revised organizational chart shall be included; and
10. If any element(s) of the program is in the process of being modified, this intention shall also be indicated.

### **K. Pretreatment Program Budget**

This section shall present the budget spent on the Pretreatment Program. The budget, either by the calendar or fiscal year, shall show the total expenses required to implement the pretreatment program. A brief discussion of the source(s) of funding shall be provided. In addition, the Discharger shall make available upon request specific details on its pretreatment program expense amounts such as for personnel, equipment, and chemical analyses.

#### **L. Public Participation Summary**

This section shall include a copy of the public notice as required in 40 C.F.R. 403.8(f)(2)(viii). If a notice was not published, the reason shall be stated.

#### **M. Biosolids Storage and Disposal Practice**

This section shall describe how treated biosolids are stored and ultimately disposed. If a biosolids storage area is used, it shall be described in detail including its location, containment features and biosolids handling procedures.

#### **N. Other Pollutant Reduction Activities**

This section shall include a brief description of any programs the Discharger implements to reduce pollutants from nondomestic users that are not classified as SIUs. If the Discharger submits any of this program information in an Annual Pollution Prevention Report, reference to this other report shall satisfy this reporting requirement.

#### **O. Other Subjects**

Other information related to the Pretreatment Program that does not fit into any of the above categories should be included in this section.

#### **P. Permit Compliance System (PCS) Data Entry Form**

The annual report shall include the PCS Data Entry Form. This form shall summarize the enforcement actions taken against SIUs in the past year. This form shall include the following information:

1. Discharger's name,
2. NPDES Permit number,
3. Period covered by the report,
4. Number of SIUs in significant noncompliance (SNC) that are on a pretreatment compliance schedule,
5. Number of notices of violation and administrative Orders issued against SIUs,
6. Number of civil and criminal judicial actions against SIUs,
7. Number of SIUs that have been published as a result of being in SNC, and
8. Number of SIUs from which penalties have been collected.

## APPENDIX H-2

### REQUIREMENTS FOR JANUARY-JUNE PRETREATMENT SEMIANNUAL REPORT

The pretreatment semiannual report is due on July 31 for pretreatment program activities conducted from January through June unless an exception has been granted by the Regional Water Board's Executive Officer (e.g., pretreatment programs without any SIUs may qualify for an exception to the pretreatment semiannual report). Pretreatment activities conducted from July through December of each year shall be included in the Pretreatment Annual Report as specified in Appendix H-1. The pretreatment semiannual report shall contain, at a minimum the following information:

#### A. Influent, Effluent and Biosolids Monitoring

The influent, effluent and biosolids monitoring results shall be evaluated in preparation of this report. The Discharger shall retain analytical laboratory reports with the QA/QC data validation and make these reports available upon request. The Discharger shall also make available upon request a description of its influent, effluent and biosolids sampling procedures. Violations of any parameter that exceed NPDES limits shall be identified and reported. The contributing source(s) of the parameters that exceed NPDES limits shall be investigated and discussed.

#### B. Significant Industrial User Compliance Status

This section shall contain a list of all SIUs that were not in consistent compliance with all pretreatment standards/limits or requirements for the reporting period. For the reported SIUs, the compliance status for the previous semiannual reporting period shall be included. Once the SIU has determined to be out of compliance, the SIU shall be included in subsequent reports until consistent compliance has been achieved. A brief description detailing the actions that the SIU undertook to come back into compliance shall be provided.

For each SIU on the list, the following information shall be provided:

1. Name and facility address of the SIU;
2. Indicate if the SIU is subject to Federal Categorical Standards; if so, specify the category including the subpart that applies;
3. For SIUs subject to Federal Categorical Standards, indicate if the violation is of a categorical or local standard;
4. Indicate the compliance status of the SIU for the two quarters of the reporting period; and
5. For violations/noncompliance identified in the reporting period, provide:
  - a. The date(s) of violation(s);
  - b. The parameters and corresponding concentrations exceeding the limits and the discharge limits for these parameters; and

- c. A brief summary of the noncompliant event(s) and the steps that are being taken to achieve compliance.

### **C. Discharger's Compliance with Pretreatment Program Requirements**

This section shall contain a discussion of the Discharger's compliance status with the Pretreatment Program Requirements as indicated in the latest Pretreatment Compliance Audit (PCA) Report or Pretreatment Compliance Inspection (PCI) Report. It shall contain a summary of the following information:

1. Date of latest PCA or PCI report;
2. Date of the Discharger's response;
3. List of unresolved issues; and
4. Plan(s) and schedule for resolving the remaining issues.



### APPENDIX H-3

#### SIGNATURE REQUIREMENTS FOR PRETREATMENT ANNUAL AND SEMIANNUAL REPORTS

The pretreatment annual and semiannual reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for the overall operation of the Discharger [POTW - 40 C.F.R. 403.12(m)]. Signed copies of the reports shall be submitted to the U.S. EPA, the State Water Board, and the Regional Water Board at the following addresses unless the Discharger is instructed by any of these agencies to submit electronic copies of the required reports:

Pretreatment Program Reports  
Clean Water Act Compliance Office (WTR-7)  
Water Division  
Pacific Southwest Region  
U.S. Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Submit electronic copies only to State and Regional Water Boards:

Pretreatment Program Manager  
Regulatory Unit  
State Water Resources Control Board  
Division of Water Quality-15th Floor  
1001 I Street  
Sacramento, CA 95814  
DMR@waterboards.ca.gov  
NPDES\_Wastewater@waterboards.ca.gov

Pretreatment Coordinator  
NPDES Wastewater Division  
SF Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

(Submit the report as a single Portable Document Format (PDF) file to the Pretreatment Coordinator's folder in the Regional Water Board's File Transfer Protocol (FTP) site. The instructions for using the FTP site can be found at the following internet address:

[http://www.waterboards.ca.gov/sanfranciscobay/publications\\_forms/documents/FTP\\_Discharger\\_Guide-12-2010.pdf](http://www.waterboards.ca.gov/sanfranciscobay/publications_forms/documents/FTP_Discharger_Guide-12-2010.pdf).)

## APPENDIX H-4

### REQUIREMENTS FOR INFLUENT, EFFLUENT AND BIOSOLIDS MONITORING

The Discharger shall conduct sampling of its treatment plant's influent, effluent and biosolids at the frequency shown in **the pretreatment requirements table** of the Monitoring and Reporting Program (MRP, Attachment E). When sampling periods coincide, one set of test results, reported separately, may be used for those parameters that are required to be monitored by both the influent and effluent monitoring requirements of the MRP and the Pretreatment Program. The Pretreatment Program monitoring reports as required in Appendices H-1 and H-2 shall be transmitted to the Pretreatment Program Coordinator.

#### A. Reduction of Monitoring Frequency

The minimum frequency of Pretreatment Program influent, effluent, and biosolids monitoring shall be dependent on the number of SIUs identified in the Discharger's Pretreatment Program as indicated in Table H-1.

Number of SIUs	Minimum Frequency
< 5	Once every five years
> 5 and < 50	Once every year
> 50	Twice per year

If the Discharger's required monitoring frequency is greater than the minimum specified in Table H-1, the Discharger may request a reduced monitoring frequency for that constituent(s) as part of its application for permit reissuance if it meets the following criteria:

The monitoring data for the constituent(s) consistently show non-detect (ND) levels for the effluent monitoring and very low (i.e., near ND) levels for influent and biosolids monitoring for a minimum of eight previous years' worth of data.

The Discharger's request shall include tabular summaries of the data and a description of the trends in the industrial, commercial, and residential customers in the Discharger's service area that demonstrate control over the sources of the constituent(s). The Regional Water Board may grant a reduced monitoring frequency in the reissued permit after considering the information provided by the Discharger and any other relevant information.

#### B. Influent and Effluent Monitoring

The Discharger shall monitor for the parameters using the required sampling and test methods listed in **the pretreatment table** of the MRP. Any test method substitutions must have received prior written Executive Officer approval. Influent and effluent sampling locations shall be the same as those sites specified in the MRP.

The influent and effluent samples should be taken at staggered times to account for treatment plant detention time. Appropriately staggered sampling is considered consistent with the requirement for collection of effluent samples coincident with influent samples in Section III.A.3.a(2) of Attachment G. All samples must be representative of daily operations. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. 136 and amendments thereto. For effluent monitoring, the reporting limits for the individual parameters shall be at or below the minimum levels (MLs) as stated in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000) [also known as the State Implementation Policy (SIP)]; any revisions to the MLs shall be adhered to. If a parameter does not have a stated ML, then the Discharger shall conduct the analysis using the lowest commercially available and reasonably achievable detection levels.

The following report elements should be used to submit the influent and effluent monitoring results. A similarly structured format may be used but will be subject to Regional Water Board approval. The monitoring reports shall be submitted with the Pretreatment Annual Report identified in Appendix H-1.

1. Sampling Procedures, Sample Dechlorination, Sample Compositing, and Data Validation (applicable quality assurance/quality control) shall be performed in accordance with the techniques prescribed in 40 C.F.R. 136 and amendments thereto. The Discharger shall make available upon request its sampling procedures including methods of dechlorination, compositing, and data validation.
2. A tabulation of the test results for the detected parameters shall be provided.
3. Discussion of Results – The report shall include a complete discussion of the test results for the detected parameters. If any pollutants are detected in sufficient concentration to upset, interfere or pass through plant operations, the type of pollutant(s) and potential source(s) shall be noted, along with a plan of action to control, eliminate, and/or monitor the pollutant(s). Any apparent generation and/or destruction of pollutants attributable to chlorination/dechlorination sampling and analysis practices shall be noted.

#### **C. Biosolids Monitoring**

Biosolids should be sampled in a manner that will be representative of the biosolids generated from the influent and effluent monitoring events except as noted in (3. below. The same parameters required for influent and effluent analysis shall be included in the biosolids analysis. The biosolids analyzed shall be a composite sample of the biosolids for final disposal consisting of:

1. Biosolids lagoons – 20 grab samples collected at representative equidistant intervals (grid pattern) and composited as a single grab, or
2. Dried stockpile – 20 grab samples collected at various representative locations and depths and composited as a single grab, or
3. Dewatered biosolids - daily composite of 4 representative grab samples each day for 5 days taken at equal intervals during the daily operating shift taken from a) the dewatering units or b) each truckload, and shall be combined into a single 5- day composite.

The U.S. EPA manual, POTW Sludge Sampling and Analysis Guidance Document, August 1989, containing detailed sampling protocols specific to biosolids is recommended as a guidance for sampling procedures. The U.S. EPA manual Analytical Methods of the National Sewage Sludge Survey, September 1990, containing detailed analytical protocols specific to biosolids, is recommended as a guidance for analytical methods.

In determining if the biosolids are a hazardous waste, the Discharger shall adhere to Article 2, "Criteria for Identifying the Characteristics of Hazardous Waste," and Article 3, "Characteristics of Hazardous Waste," of Title 22, California Code of Regulations, sections 66261.10 to 66261.24 and all amendments thereto.

The following report elements should be used to submit the biosolids monitoring results. A similarly structured form may be used but will be subject to Regional Water Board approval. The results shall be submitted with the Pretreatment Annual Report identified in Appendix H-1.

- Sampling Procedures and Data Validation (applicable quality assurance/quality control) shall be performed in accordance with the techniques prescribed in 40 C.F.R. 136 and amendments thereto. The Discharger shall make available upon request its biosolids sampling procedures and data validation methods.
- Test Results – Tabulate the test results for the detected parameters and include the percent solids.
- Discussion of Results – Include a complete discussion of test results for the detected parameters. If the detected pollutant(s) is reasonably deemed to have an adverse effect on biosolids disposal, a plan of action to control, eliminate, and/or monitor the pollutant(s) and the known or potential source(s) shall be included. Any apparent generation and/or destruction of pollutants attributable to chlorination/dechlorination sampling and analysis practices shall be noted.

The Discharger shall also provide a summary table presenting any influent, effluent or biosolids monitoring data for non-priority pollutants that the Discharger believes may be causing or contributing to interference, pass through or adversely impacting biosolids quality.