

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Jessica Watkins)
MEETING DATE: September 11, 2019

ITEM: 7

SUBJECT: **City and County of San Francisco, Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project, San Francisco, San Francisco County – Reissuance of NPDES Permit**

CHRONOLOGY: August 2009 – Permit reissued

DISCUSSION: This Revised Tentative Order (Appendix A) would reissue the NPDES permit for discharges from San Francisco’s Oceanside Water Pollution Control Plant, wastewater collection system, and new Westside Recycled Water Project. These facilities collect, treat, and discharge residential, commercial, and industrial wastewater from the western parts of San Francisco. The recycled water project will use treatment plant effluent to produce recycled water and offset potable water consumption.

The treatment plant has a dry weather design capacity of 43 million gallons per day (MGD) and discharges to the Pacific Ocean through a deepwater outfall more than three nautical miles from shore, beyond State territorial waters. Because San Francisco operates a combined sewer system, it uses a single sewer system to collect sanitary wastewater and urban runoff during dry weather, and sanitary wastewater and stormwater during wet weather. During dry weather, San Francisco typically provides secondary treatment for about 11 MGD of combined wastewater. When storms increase flows above about 43 MGD, San Francisco continues to provide primary treatment for up to 65 MGD. During exceptional storms, San Francisco provides “equivalent-to-primary” treatment for additional flows. When flows exceed about 175 MGD, San Francisco sometimes discharges “equivalent-to-primary” treated wastewater through a number of nearshore outfalls.

The Westside Recycled Water Project is expected to produce an annual average recycled water flow of 1.6 MGD, with peak deliveries of up to 4 MGD during summer. The project will employ membrane filtration, reverse osmosis, and ultraviolet (UV) light disinfection. Wastewater from the reverse osmosis process will be mixed with treatment plant effluent prior to discharge.

Since this permit covers discharges to both State and federal waters, we have worked closely with U.S. EPA to facilitate joint reissuance. The Revised Tentative Order updates the permit’s discharge requirements consistent with U.S. EPA’s *Combined Sewer Overflow (CSO) Control Policy*. Most significantly, it requires San Francisco to update its “Long-Term Control Plan” to consider options to eliminate, relocate, or reduce the magnitude or frequency of nearshore discharges.

We received numerous comments from San Francisco and members of the public regarding a draft order circulated for review. Copies of comment letters are available upon request from Jessica Watkins at the Regional Water Board (jwatkins@waterboards.ca.gov, 510-622-2349) or Becky Mitschele at U.S. EPA Region IX (mitschele.becky@epa.gov, 415-972-3492). Appendix B contains a summary of the comments and our responses.

Members of the public are concerned about the impacts of sewer overflows from the combined sewer system on homes and businesses, and generally support new requirements to report such overflows. We and U.S. EPA take these concerns seriously and are discussing potential solutions with San Francisco. The Revised Tentative Order retains requirements to (1) ensure that wet weather operations minimize the frequency, volume, and duration of these overflows; (2) submit a report that describes the location, frequency, and characteristics of these overflows for at least the last 10 years, and considers the impacts of climate change and sea level rise; and (3) report these overflows through the statewide CIWQS database.

San Francisco submitted numerous comments and supporting documents. Most significantly, San Francisco questions U.S. EPA and Board authority to require the Long-Term Control Plan update. San Francisco argues that the requirement is contrary to law and unsupported by available facts and prior findings made by U.S. EPA and the Board. As explained in our Response to San Francisco Comment B.7, we disagree. There are several legal bases for the requirement, including but not limited to federal regulations, the *Combined Sewer Overflow (CSO) Control Policy*, and State Water Board Order No. WQ 79-16. Moreover, the requirement is consistent with U.S. EPA guidance and requirements imposed in consent decrees for other combined sewer systems. Furthermore, not only have the facilities changed since constructed, but recreational use patterns can also change and we have only begun to understand the potential impacts of climate change. San Francisco also has additional changes underway or planned for the near future as part of its Sewer System Improvement Program. The Revised Tentative Order retains the Long-Term Control Plan update requirement with many revisions similar to as proposed by San Francisco (see our Responses to San Francisco Comments A.20 through A.27). Of note, the Revised Tentative Order consolidates several Long-Term Control Plan Update tasks and extends several compliance dates. The tasks are detailed and concrete, although they also provide flexibility for San Francisco to determine the precise means of compliance.

San Francisco also objects to a receiving water limitation that would prohibit discharges that cause or contribute to violations of water quality standards, and to an existing prohibition against discharges creating pollution, contamination, or nuisance. San Francisco argues that these requirements are inconsistent with applicable law and unsupported by facts. San Francisco is also concerned that the requirements create uncertainty and to-be-determined liability. As explained in our Response to San Francisco Comment B.1, we disagree. We do not propose revisions because the proposed requirements are consistent with the Clean Water Act, the *Combined Sewer Overflow (CSO) Control Policy*, NPDES regulations, State water quality standards, and State law. Furthermore, the receiving water limitation and discharge prohibition serve as backstops in the event that the effluent limitations and other provisions in the permit prove to be inadequate. The same receiving water limitation appears in nearly all NPDES permits in the Region including San Francisco's NPDES permit for the wastewater facilities in the eastern portion of San Francisco. Similarly, the discharge prohibition has been in nearly all NPDES permits in the Region since 1993, including San Francisco's previous permits. When the Board most recently updated its Regional Standard Provisions through Order No. R2-2017-0042, it retained this provision.

We expect San Francisco and members of the public to reiterate their concerns at the hearing.

RECOMMEN-
DATION: Adoption of the Revised Tentative Order

FILE: CW-256498

APPENDICES: A. Revised Tentative Order
B. Response to Comments

Appendix A
Revised Tentative Order

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**TENTATIVE ORDER No. R2-2019-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, WASTEWATER
COLLECTION SYSTEM, AND WESTSIDE RECYCLED WATER PROJECT**

The following Discharger is authorized to discharge from the locations listed in Table 2 in accordance with the waste discharge requirements (WDRs) and federal National Pollutant Discharge Elimination System (NPDES) permit requirements set forth in this Order:

Table 1. Discharger Information

Discharger	City and County of San Francisco
Facility Name	Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project
Facility Address	3500 Great Highway San Francisco, CA 94132 San Francisco County
CIWQS Place Number	256498

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Treated effluent, including the following: <ul style="list-style-type: none">• Secondary-treated effluent from Oceanside Water Pollution Control Plant (dry weather);• Primary- and secondary-treated effluent from Oceanside Water Pollution Control Plant (wet weather);• Equivalent-to-primary-treated effluent from Westside Transport/Storage Structure (wet weather); and• Reverse osmosis concentrate from Westside Recycled Water Project, when operational (dry and wet weather).	37.70500	-122.57750	Pacific Ocean, Offshore
CSD-001	Equivalent-to-primary-treated effluent (wet weather)	37.71528	-122.50444	Pacific Ocean (Fort Funston, Ocean Beach)

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
CSD-002	Equivalent-to-primary-treated effluent (wet weather)	37.73778	-122.50806	Pacific Ocean (Vicente St., Ocean Beach)
CSD-003	Equivalent-to-primary-treated effluent (wet weather)	37.76389	-122.51167	Pacific Ocean (Lincoln Way, Ocean Beach)
CSD-004	Equivalent-to-primary-treated effluent (wet weather)	37.78472	-122.51028	Pacific Ocean (Mile Rock)
CSD-005	Equivalent-to-primary-treated effluent (wet weather)	37.78778	-122.49167	Pacific Ocean (China Beach)
CSD-006	Equivalent-to-primary-treated effluent (wet weather)	37.78944	-122.48778	Pacific Ocean (Baker Beach)
CSD-007	Equivalent-to-primary-treated effluent (wet weather)	37.78944	-122.48694	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:	November 1, 2019
This Order shall expire on:	October 31, 2024
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:	February 1, 2024
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.

 Michael Montgomery, Executive Officer
 San Francisco Bay Regional Water Board

 Tomás Torres, Water Division Director
 U.S. Environmental Protection Agency

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I. FACILITY INFORMATION

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

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), and the U.S. Environmental Protection Agency (U.S. EPA) 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 a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States as listed in Table 2 subject to the WDRs and NPDES permit requirements in this Order.
- B. Background and Rationale for Requirements.** The Regional Water Board and U.S. EPA developed the requirements in this Order 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, G, and H are also incorporated into this Order.
- C. Notification of Interested Parties.** The Regional Water Board and U.S. EPA notified the Discharger and interested agencies and persons of their intent to jointly issue WDRs and NPDES permit requirements, and provided an opportunity to submit written comments and recommendations. The Fact Sheet provides details regarding the notification.
- D. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard all comments pertaining to the discharge. The Fact Sheet provides details regarding the public hearing. The Regional Water Board and U.S. EPA considered all comments pertaining to the discharge.

THEREFORE, IT IS HEREBY ORDERED that Order No. R2-2009-0062 (previous order) 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 discharges pursuant to this Order comply with 33 U.S.C. sections 1311, 1312, 1313, 1316, and 1317. This action in no way prevents the Regional Water Board or U.S. EPA 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 than described in this Order is prohibited.
- B. Bypass of untreated or partially-treated wastewater to waters of the United States is prohibited, except as provided for in Attachment D section I.G. Combined sewer discharges during wet weather (as defined in Attachment A) authorized by this Order are not subject to this prohibition.

Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. These anticipated discharges are approved under the bypass conditions when (1) the Discharger's instantaneous wet weather influent flow exceeds the capacity of the biological treatment units of 43 MGD, (2) all wet weather flows passing the headworks of the plant receive at least primary treatment, and (3) the discharge complies with the applicable effluent and receiving water limitations contained in this Order. Furthermore, the Discharger shall operate its Facility as designed and in accordance with the Operation and Maintenance Manual for the Facility. This means it shall optimize storage and use of equalization units and shall fully utilize the biological treatment units. The Discharger shall report incidents of blended effluent discharges in monthly self-monitoring reports and shall conduct monitoring of this discharge as specified in the attached Monitoring and Reporting Program (MRP) (Attachment E).

- C. Discharge at Discharge Point No. 001 is prohibited when the discharge does not receive a minimum initial dilution of at least 148:1 (parts seawater per part wastewater), as modeled assuming no currents. 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, 148:1. The Discharger shall describe measures taken to ensure compliance in its Report of Waste Discharge and application for permit reissuance.
- D. Discharge to a water of the United States from any location other than Discharge Point No. 001 is prohibited, except from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 during wet weather (as defined in Attachment A) in accordance with the requirements in this Order.
- E. Average dry weather Oceanside Water Pollution Control Plant influent flow in excess of 43 MGD is prohibited. Average dry weather influent flow shall be determined from three consecutive dry weather months each year, with compliance measured at Monitoring Location INF-001A as described in the MRP.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Technology-Based Effluent Limitations

1. Oceanside Water Pollution Control Plant

During dry weather, the Discharger shall comply with the following effluent limitations for discharges from the Oceanside Water Pollution Control Plant, with compliance measured at Monitoring Location EFF-001A as described in the MRP, as follows:

Table 4. Effluent Limitations - Oceanside Water Pollution Control Plant

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C (CBOD ₅)	mg/L	25	40	---	---	---
Total Suspended Solids (TSS)	mg/L	30	45	---	---	---
CBOD ₅ Removal ^[1]	%	85 (minimum)	---	---	---	---
TSS Removal ^[1]	%	85 (minimum)	---	---	---	---
pH ^[2]	s.u.	---	---	---	6.0	9.0

Abbreviations:

mg/L = milligrams per liter
 s.u. = standard units
 % = percent

Footnotes:

- ^[1] The arithmetic mean of CBOD₅ and TSS, by concentration, of effluent samples collected at Monitoring Location EFF-001A as described in the MRP shall not exceed 15 percent of the arithmetic mean of the CBOD₅ and TSS, by concentration, of influent samples collected at Monitoring Location INF-001A as described in the MRP, at approximately the same times during the same periods.
- ^[2] 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.

During wet weather, the Discharger shall comply with the narrative technology-based effluent limitations contained in Provision VI.C.5.a (Nine Minimum Controls).

2. Westside Recycled Water Project

When recycled water is being produced, the Discharger shall comply with the following effluent limitations for discharges from the Westside Recycled Water Project, with compliance measured at Monitoring Location EFF-001R as described in the MRP, as follows:

Table 5. Effluent Limitations - Westside Recycled Water Project

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
TSS	mg/L	60	---	---	---	---
pH ^[1]	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

Abbreviations:

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

Footnote:

^[1] 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.

B. Water Quality-Based Effluent Limitations

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

Table 6. Effluent Limitations - Discharge Point No. 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Chronic Toxicity ^[1]	Pass or Fail	---	---	Pass	---	---

Footnote:

^[1] MRP section V sets forth chronic toxicity monitoring requirements. The discharge is subject to determination of “Pass” or “Fail” from a single chronic toxicity test conducted at the in-stream waste concentration (IWC) defined in MRP section V.A.2 using the Test of Significant Toxicity (TST) statistical approach (Welch’s t-test) 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, and Appendix B, Table B-1.

The TST null hypothesis shall be the following:

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

A test result that rejects this null hypothesis shall be reported as “Pass.” A test result that does not reject this null hypothesis shall be reported as “Fail.” The relative “Percent Effect” at the discharge IWC shall also be reported as:

$$([\text{Mean control response} - \text{Mean discharge IWC response}] \div \text{Mean control response}) \times 100$$

During wet weather, the Discharger shall comply with the narrative water quality-based effluent limitations contained in Provision VI.C.5.c (Long-Term Control Plan) for the Discharge Points in Table 2.

V. RECEIVING WATER LIMITATIONS

Discharge shall not cause or contribute to a violation of any applicable water quality standard (with the exception set forth in State Water Board Order No. WQ 79-16) for receiving waters adopted by the Regional Water Board, State Water Resources Control Board (State Water Board), or U.S. EPA as required by the CWA and regulations adopted thereunder. If more stringent water quality standards are promulgated or approved pursuant to CWA section 303, or amendments thereto, the Regional Water Board and U.S. EPA may revise or modify this Order in accordance with the more stringent standards.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all “Standard Provisions” included in Attachment D. In Attachment D, references to “Regional Water Board” shall be interpreted as “Regional Water Board and U.S. EPA,” and references to “Regional Water Board Executive Officer” shall be interpreted as “Regional Water Board Executive Officer and U.S. EPA.”
2. The Discharger shall comply with all applicable provisions of the “Regional Standard Provisions, and Monitoring and Reporting Requirements” (Attachment G), except as follows:
 - a. **Attachment G section V.C.1.d.iv (Dioxin-TEQ).** The Discharger shall calculate and report dioxin-TEQs using the definition of TCDD Equivalents in Attachment A, which supersedes the definition in Attachment G.
 - b. **Attachment G section III.A.2 (Minimum Levels).** The Discharger shall comply with the minimum levels listed in Ocean Plan Appendix II in lieu of those listed in Attachment G Table B.
 - c. **Attachment G section III.A.3.b.v(b) (Approved Wet Weather Bypasses).** The Discharger shall comply with the monitoring requirements for wet weather secondary bypasses in MRP Table E-5 (Monitoring Location EFF-001B) in lieu of those listed in Attachment G section II.A.3.b.v(b).

In Attachment G, references to “Regional Water Board” shall be interpreted as “Regional Water Board and U.S. EPA,” and references to “Regional Water Board Executive Officer” shall be interpreted as “Regional Water Board Executive Officer and U.S. EPA.”

B. Monitoring and Reporting

The Discharger shall comply with the MRP, 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 or U.S. EPA 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 standards 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 water quality standards 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 water quality objectives, 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 WDRs addresses requirements similar to this discharge.
- f. If combined sewer system discharge controls fail to meet water quality standards or protect designated uses.
- g. Or as otherwise authorized by law.

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 characterize and evaluate the dry weather discharge from Discharge Point No. 001 to verify that the reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall monitor Ocean Plan Table 1 pollutants as described in the MRP and evaluate on an annual basis whether concentrations of any Ocean Plan Table 1 pollutants significantly increase over past performance. The Discharger shall investigate the cause of any such increases. The investigation may include, but need not be limited to, increasing the monitoring frequency, monitoring internal process streams, and monitoring of influent sources. The Discharger shall establish remedial measures addressing any increases resulting in reasonable potential to cause or contribute to an exceedance of

applicable water quality objectives (see Fact Sheet Tables F-9 and F-10 for the objectives). This requirement to establish remedial measures 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 identity of any Ocean Plan Table 1 pollutant detected at or above the applicable water quality objective to the Regional Water Board and U.S. EPA.
- ii. Annual Reporting.** The Discharger shall summarize the annual data evaluation and source investigation in its annual self-monitoring report (see MRP § VIII.B).

3. Pollutant Minimization Program

- a.** The Discharger shall continue to improve its Pollutant Minimization Program to promote minimization of pollutant loadings to the sewer system 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. At a minimum, the Discharger shall consider copper and zinc as pollutants of concern.
 - 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 continue 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.
- 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.** The 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 further described below when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified [DNQ] when the effluent limitation is less than the method detection limit [MDL], sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) and either:

 - i.** A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or
 - ii.** A sample result is reported as not detected (ND) and the effluent limitation is less than the MDL using definitions in Attachment A and reporting protocols described in the MRP.

- 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 treatment plant influent. The Regional Water Board Executive Officer and U.S. EPA 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 Publicly-Owned Treatment Works (POTWs)

- a. **Sludge and Biosolids Management.** The Discharger shall manage its sludge and biosolids in accordance with federal regulations (40 C.F.R. parts 258 and 503) and Attachment H.
 - i. Sludge and biosolids treatment and storage shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.
 - ii. Sludge and biosolids treatment and storage facilities shall be adequate to divert surface runoff from adjacent areas, to protect site boundaries from erosion, and to prevent conditions that would cause drainage from stored materials. Adequate protection is defined as protection from at least a 100-year storm and the highest possible tidal state that may occur.
 - iii. This Order does not authorize permanent onsite sludge or biosolids storage or disposal. A Report of Waste Discharge shall be filed and the site brought into compliance with applicable regulations prior to commencement of any such activity.
- b. **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:

specified in Attachments D and G of this Order for the separate sanitary collection systems. Following the reporting requirements set forth in the statewide WDRs (and any subsequent order updating these requirements) shall satisfy the NPDES reporting requirements for sanitary sewer overflows specified in Attachments D and G.

5. Combined Sewer System

a. Nine Minimum Controls. The Discharger shall implement the following nine minimum controls:

i. Control No. 1: Conduct Proper Operations and Maintenance Program. The Discharger shall implement an operations and maintenance program that establishes operation, maintenance, and inspection procedures to ensure that the combined sewer system is operated and maintained in a manner that complies with the requirements of this Order. The program shall include the elements listed below:

(a) Organizational Structure. The Discharger shall maintain an up-to-date directory of operations and maintenance staff, and a designated primary contact person for the Facility. The Discharger shall notify the Regional Water Board and U.S. EPA within 90 days of designating a new primary contact person.

(b) Budget. The Discharger shall allocate sufficient funds and personnel for routine operations and maintenance, and to provide for possible emergencies.

(c) Critical Facilities and Major System Components. The Discharger shall maintain a written inventory of critical facilities and major system components (i.e., those facilities and system components that affect the performance of the combined sewer system). The inventory shall include force mains, pump stations, major treatment plant units, transport/storage structures, combined sewer discharge outfalls, Discharge Point No. 001 outfall, tide gates, overflow weirs, and baffles. The Discharger shall include the following information for each critical facility and major system component in the inventory:

- (1) Physical description (e.g., capacity, dimensions, age) and location;
- (2) Status (e.g., elements out of service or planned to be taken out of service); and
- (3) Description of preventative maintenance planned and completed.

At a minimum, the Discharger shall review and update the inventory once every 12 months. The Discharger may combine the inventory and the Wastewater Facilities Status Report (see Attachment G section I.D.2) into one document.

(d) Procedures for Routine Maintenance. The Discharger shall document procedures for routine maintenance and timely repair of the critical facilities and major system components listed in the inventory required by Provision VI.C.5.a.i(c). Routine maintenance shall focus on preventative maintenance to avoid failures during critical times.

(e) Non-Routine Maintenance and Emergency Situations. The Discharger shall develop and implement an emergency response plan for each critical facility to

minimize the likelihood and adverse impacts of failure to the maximum extent practicable. The emergency response plan shall be consistent with the Contingency Plan required by Attachment G section I.C.1.

- (f) Inspections.** The Discharger shall conduct an inspection program of the combined sewer system to provide reasonable assurance that unpermitted discharges, obstructions, and damage will be discovered. At a minimum, the Discharger shall do the following:
- (1)** Inspect each critical facility and major system component identified in accordance with Provision VI.C.5.a.i(c), above, at least once every 12 months to ensure they are in good working condition. The inspection shall include, but not be limited to, entering the regulator structure, if accessible; determining the extent of any structural defects or debris and grit buildup; removing any debris that may constrict flow, cause blockage, or result in a prohibited discharge; and adjusting tide gates to minimize combined sewer discharges and to prevent tidal inflow.
 - (2)** Record all inspection results, including the date and time of the inspection, the inspection findings, and description of any corrective actions taken.
- (g) Training.** The Discharger shall provide training to operations and maintenance staff regarding operation and maintenance duties and standard operation procedures. Training shall be consistent with the Discharger's Operation and Maintenance Manual required by Attachment G section I.D.1 (Operation and Maintenance Manual).
- (h) Operation and Maintenance Program Review.** The Discharger shall review and modify its operations and maintenance program as necessary and in accordance with sections I.C (Duty to Mitigate) and I.D (Proper Operation and Maintenance) of Attachments D and G. At a minimum, the Discharger shall review and update the Operation and Maintenance Manual required by Attachment G section I.D.1 (Operation and Maintenance Manual) once per calendar year.

ii. Control No. 2: Maximize Use of Collection System for Storage

- (a)** The Discharger shall maximize use of the combined sewer system for in-line storage to reduce the magnitude, frequency, and duration of combined sewer discharges. At a minimum, the Discharger shall implement the following controls:
- (1)** Prevent intrusion of receiving waters into the combined sewer system;
 - (2)** Use all facilities, including any inoperative or unused treatment facilities, to store or treat wet weather flows to the maximum extent practicable; and
 - (3)** Implement programs to remove and prevent flow obstructions in the combined sewer system, including but not limited to catch basin cleaning; gravity sewer cleaning; fats, oils and grease control; gravity sewer condition assessment;

gravity sewer rehabilitation and replacement; and disconnection of illegal connections.

- (b) The Discharger shall notify and report sewer overflows from the combined sewer system by implementing the following within six months of the effective date of this Order:
- (1) The Discharger shall complete the CIWQS Online Collection System Questionnaire, as required by the CIWQS system, and enter information regarding all sewer overflows from the combined sewer system into the CIWQS Online SSO Database, including all required database fields. The Discharger's Legally Responsible Official, as required by the CIWQS system, shall certify all information submitted. The Discharger shall update and certify the Collection System Questionnaire at least every 12 months.
 - (2) For sewer overflows from the combined sewer system with volumes 1,000 gallons or greater, the Discharger shall submit draft reports through the CIWQS Online SSO database within 3 business days of becoming aware of the sewer overflow from the combined sewer system and certify the reports within 15 calendar days of the end date of the sewer overflow from the combined sewer system.
 - (3) For sewer overflows from the combined sewer system with volumes 50,000 gallons or greater, the Discharger shall submit a technical report within 45 calendar days of the end date for such overflows that further explains the causes and circumstances, including the method and data used to calculate the volume, and lists response actions completed and planned.
 - (4) For sewer overflows from the combined sewer system with volumes less than 1,000 gallons, the Discharger shall submit certified reports to the CIWQS Online SSO database within 30 calendar days of the end of the month during which such overflows occur.
 - (5) For each month during which no sewer overflow from the combined sewer system occurs, the Discharger shall certify, within 30 calendar days of the end of the month during which no sewer overflow from the combined sewer system occurred, that no sewer overflow from the combined sewer system occurred.
- iii. **Control No. 3: Review and Modify Pretreatment Program.** The Discharger shall 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, such as requirements for detention during wet weather, are feasible or practical. The Discharger shall document this re-evaluation in the annual report required by Provision VI.C.4.b and Attachment H.

- iv. Control No. 4: Maximize Flow to Treatment Plant.** During wet weather, the Discharger shall maximize the volume of wastewater that receives treatment at the Oceanside Water Pollution Control Plant (i.e., secondary treatment for 43 MGD and primary treatment for an additional 22 MGD) and is discharged at Discharge Point No. 001.
- v. Control No. 5: Prohibit Dry Weather Combined Sewer Overflows.** Dry weather discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 are prohibited (see Discharge Prohibition III.D). During any dry weather discharge at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007, the Discharger shall inspect the associated outfall structure each day until the unauthorized discharge stops. For each prohibited dry weather discharge, the Discharger shall submit the information required by Attachment G section V.C.1.a (e.g., duration, cause, corrective actions taken or planned).
- vi. Control No. 6: Control Solid and Floatable Materials in Combined Sewer Discharges.** The Discharger shall implement measures to minimize the volume of solid and floatable materials in combined sewer discharges (e.g., equip Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 with baffles, screens, racks, or other means to reduce the volume of solid and floatable materials). The Discharger shall also remove and properly dispose of solid and floatable materials captured in the combined sewer system.
- vii. Control No. 7: Develop and Implement Pollution Prevention Program.** The Discharger shall implement a pollution prevention program focused on reducing the amount of pollutants that enter the combined sewer system. The Discharger shall develop and implement this program in accordance with Provision VI.C.3 (Pollutant Minimization Program). As part of this program, the Discharger shall implement a street sweeping program and clean catch basins at a frequency sufficient to minimize large accumulations of pollutants and debris.
- viii. Control No. 8: Notify Public of Combined Sewer Discharges.** The Discharger shall inform the public of the location of combined sewer discharge outfalls (i.e., Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007), the actual occurrences of combined sewer discharges, the possible health and environmental impacts of combined sewer discharges, and the recreational or commercial activities (e.g., swimming, shellfish harvesting) curtailed as a result of combined sewer discharges. Notification shall include the following, at a minimum:
- (a) The Discharger shall maintain permanent identification signs at the locations of Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007, and at public access points. The Discharger shall inspect, and replace as necessary, all permanent signs at least once per calendar year to ensure that the signs are visible and readable. New or replacement signs shall be visible

and legible from a distance of 50 feet onshore and offshore, and contain the following information, at a minimum:

- Discharge Point No. (discharge identification number).
- Telephone number to report dry weather discharges.
- Description of discharge, including the words “sewage” and “pathogens that can cause illness.”
- Warning, alert, caution, or other term to notify the public that caution is needed.

- (b) The Discharger shall post warning signs, including “No Swimming” signs, at beach locations whenever a combined sewer discharge occurs to inform users that bacteria concentrations may be elevated. The Discharger shall post warning signs within four hours of the time the discharge commences unless the discharge begins within one hour of sunset, in which case, the Discharger shall post warning signs within one hour of sunrise the following day. Signs shall remain posted until analysis indicates that water quality meets bacteriological criteria for recreation.
- (c) The Discharger shall post warning signs at public access points where shellfish may be harvested for human consumption whenever a combined sewer discharge occurs. The Discharger shall post warning signs within four hours of the time the discharge commences unless the discharge begins within one hour of sunset, in which case, the Discharger shall post warning signs within one hour of sunrise the following day. Signs shall be posted until the City and County Health Department indicates that posting is no longer required.
- (d) The Discharger shall provide electronic notification of combined sewer discharges through a free-access website and telephone hotline. The electronic notification shall include information about the location and impacts of combined sewer discharges, and provide a telephone number for the public to report discharges.

- ix. Control No. 9: Monitor to Characterize Combined Sewer Discharge Impacts and Efficacy of Controls.** The Discharger shall monitor to determine the occurrence and apparent impacts of combined sewer discharges, and the efficacy of controls, as described in Provision VI.C.8 and the MRP.
- b. Documentation of Nine Minimum Controls.** The Discharger shall maintain records documenting implementation of the nine minimum controls described in Provision VI.C.5.a. By February 1 each year, the Discharger shall submit a report to the Regional Water Board and U.S. EPA covering the prior October 1 through September 30. The report shall summarize actions taken and planned to implement the nine minimum controls.
- c. Long-Term Control Plan (LTCP).** The Discharger shall implement its Long-Term Control Plan (LTCP) and shall comply with the following provisions:

- i.** The Discharger shall optimize system operations to minimize combined sewer discharges and maximize pollutant removal during wet weather.
- ii.** The Discharger shall use all facilities, including any inoperative or unused facilities, to store or treat wet weather flows to the maximum extent practicable.
- iii.** The Discharger shall capture for treatment, or storage and subsequent treatment, 100 percent of the combined wastewater and stormwater flow collected in the combined sewer system during precipitation events. Captured flows shall receive the minimum treatment specified in Table 2.
- iv.** The Discharger shall operate the facilities as set forth below and maintain records documenting implementation. If the Discharger demonstrates that changes to these operating parameters will result in additional storage or treatment, it shall implement such changes after receiving written concurrence from the Regional Water Board Executive Officer and U.S. EPA.
 - (a)** The Oceanside Water Pollution Control Plant shall have an instantaneous influent flow rate of at least 43 MGD prior to discharging primary-treated effluent from the plant to Discharge Point No. 001.
 - (b)** The Oceanside Water Pollution Control Plant shall have an instantaneous influent flow rate of at least 60 MGD prior to initiating discharge from the Westside Transport/Storage Structure to Discharge Point No. 001.
 - (c)** The flow 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.
 - (d)** The Discharger shall ensure that two duty pumps at the Sea Cliff No. 1 Pump Station are operating at maximum capacity prior to discharging at Discharge Point No. CSD-005.
 - (e)** The Discharger shall ensure that the Sea Cliff No. 2 Pump Station is operating at maximum capacity and at least 1,100 gallons per minute prior to discharging at Discharge Point Nos. CSD-006 and CSD-007.
 - (f)** The Discharger shall comply with the following after rain and combined sewer discharges subside:
 - (1)** If the National Weather Service predicts at least a 30 percent chance of rain within the next 24 hours, the Discharger shall maximize storage capacity for predicted rain by pumping down the Westside Transport/Storage Structure to dry weather levels (i.e., ten feet or less in the East Box).
 - (2)** If the National Weather Service predicts less than a 30 percent chance of rain within the next 24 hours, the Discharger shall maximize secondary treatment at the Oceanside Water Pollution Control Plant by ceasing the discharge of

primary-treated plant effluent and Westside Transport/Storage Structure effluent to Discharge Point No. 001.

- d. LTCP Update.** The Discharger shall update its LTCP by implementing the following tasks based on the *Combined Sewer Overflow (CSO) Control Policy* and shall submit the required reports to the Regional Water Board and U.S. EPA as specified in the table below. In doing so, the Discharger may use previously completed studies to the extent that they accurately provide the required information.

Table 7. Tasks to Update Long-Term Control Plan (LTCP)

Task	Compliance Date
<p>1. Post-Construction Characterization, Monitoring, and Modeling of Combined Sewer System</p> <p>The Discharger shall submit a System Characterization Report with a comprehensive characterization of the combined sewer system developed through records review, monitoring, modeling, and other means as appropriate to establish the existing conditions upon which the Consideration of Sensitive Areas Report (Task 3) will be based. At a minimum, the System Characterization Report shall include the following:</p> <ul style="list-style-type: none"> a. Thorough description of the entire combined sewer system, including how it responds during a modeled typical year and various precipitation events (including 3-hour duration, 5-year and 10-year return frequency storms). This description will consider the volume and frequency of combined sewer system discharges and sewer overflows from the combined sewer system, and the impacts of climate change and sea level rise; b. Description of each model used, including a discussion of model calibration and validation; c. Location, frequency, and characteristics of actual combined sewer discharges and sewer overflows from the combined sewer system, and their locations relative to sensitive areas, for at least the last 10 years; d. Description of any temporal or spatial trends of sewer overflows from the combined sewer system; e. Based on available information, evaluation of how combined sewer discharges affect receiving water quality. At a minimum, the Discharger shall compare wet weather average and maximum discharge characteristics and receiving water monitoring data with Ocean Plan Table 1 water quality objectives; and f. Evaluation of combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency), including a description of any method used. 	<p>Within 48 months of this Order's effective date</p>
<p>2. Public Participation</p> <p>The Discharger shall submit a description of its completed and planned public participation efforts to actively involve the affected public in its decision-making process related to capital planning, including implementation of any additional long-term combined sewer system controls based on the results of the Consideration of Sensitive Areas Report. The affected public includes rate-payers (including rate-payers in separate sanitary sewer system service areas), industrial users, persons who use the receiving waters, and any other interested persons. The public participation efforts may include outreach through methods such as public meetings, direct mailers, billing inserts, press releases, postings of information on the Discharger's website, and development of advisory committees.</p>	<p>Within 48 months of this Order's effective date</p>

Task	Compliance Date
<p>3. Consideration of Sensitive Areas</p> <p>Based on the findings of the System Characterization Report (Task 1), the Discharger shall submit a Consideration of Sensitive Areas Report that evaluates, prioritizes, and proposes control alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges to sensitive areas from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007. The Consideration of Sensitive Areas Report shall include the following, at a minimum:</p> <ul style="list-style-type: none"> a. Provide updated water contact recreational use surveys, focusing particularly on recreational use following combined sewer discharges; b. Identify control alternatives for each combined sewer discharge structure and the combined sewer system as a whole, including but not limited to the following: <ul style="list-style-type: none"> i. Green infrastructure and low impact development; ii. Increased storage within the combined sewer system and at the Oceanside Water Pollution Control Plant; iii. Increased treatment capacity; iv. Operational changes; v. Increased pumping capacity at the Westside Pump Station; and vi. Use of high-rate treatment technologies and disinfection to minimize pollutant loads. c. Evaluate the practical and technical feasibility of the proposed alternatives; d. Using a model, simulate existing conditions and expected conditions after construction and operation of each proposed alternative, including how the alternative would be expected to affect water quality and combined sewer discharge volumes and frequencies at each combined sewer discharge outfall, and incorporating consideration of climate change and sea level rise; e. Evaluate the feasibility, costs, and benefits of the alternatives. Evaluate financial capabilities (e.g., using U.S. EPA’s <i>Combined Sewer Overflows, Guidance for Financial Capability Assessment and Schedule Development</i> [EPA 832-B-97-004, February 1997] or other appropriate guidance); f. Consider costs relative to water quality and other public benefits, financial capabilities, other infrastructure needs, and integrated planning considerations, and prioritize and propose for implementation alternatives to eliminate, relocate, or reduce the magnitude or frequency of discharges from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007 based on Tasks 3.a through 3.e, above; and g. Provide an implementation schedule that includes interim milestones. 	<p>Within 48 months of this Order’s effective date</p>
<p>4. Operational Plan</p> <ul style="list-style-type: none"> a. The Discharger shall submit a Wet Weather Operations Report that proposes a set of operational parameters to be used as performance measures to ensure that wet weather operations maximize pollutant removal and minimize the frequency, volume, and duration of combined sewer discharges and sewer overflows from the combined sewer system. The performance measures may include all or a portion of those listed in Provision VI.C.5.c.iv and shall include measures to evaluate compliance. The Discharger shall provide the technical basis for proposing new performance measures or retaining the existing ones. b. Within 90 days of receiving written concurrence from the Regional Water Board Executive Officer and U.S. EPA, the Discharger shall update its Operation and Maintenance Manual, implement the proposed performance measures in lieu of those in Provision VI.C.5.c.iv, and demonstrate compliance. 	<p>Within 24 months of this Order’s effective date</p> <p>Within 90 days of receiving written concurrence</p>

Task	Compliance Date
<p>5. Post-Construction Compliance Monitoring Program The MRP contains post-construction compliance monitoring requirements. The Discharger shall submit a Post-Construction Compliance Monitoring Plan proposing modifications, as appropriate, to the MRP for the next permit term to verify compliance with applicable water quality standards and protection of designated uses, as well as to ascertain the effectiveness of combined sewer system controls. At a minimum, the Post-Construction Compliance Monitoring Plan shall evaluate whether any reduction or increase in monitoring, or alternative monitoring, is appropriate.</p>	<p>With Report of Waste Discharge</p>

6. Westside Recycled Water Project Operations Notification

The Discharger shall notify the Regional Water Board and U.S. EPA at least 30 days prior to commencing Westside Recycled Water Project operations. The notification shall include the following:

- a. Date that operations will commence;
- b. Description of the project as constructed, including a description and flow diagram of all treatment processes;
- c. Description and line diagram of how and where the concentrate from the reverse osmosis process is to be discharged to Discharge Point No. 001;
- d. Description of anticipated changes in the quality of effluent discharged to Discharge Point No. 001; and
- e. 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 § IV.C.4.b), the notification shall also summarize anticipated maximum receiving water concentrations and compare them to the water quality objectives listed in Fact Sheet Tables F-9 and F-10.

7. Flame Retardant Special Study

The Discharger shall propose a special study to evaluate Oceanside Water Pollution Control Plant effluent flame retardant concentrations and flame retardant mass loadings to the Pacific Ocean from Discharge Point No. 001. The Discharger shall submit a special study work plan to the U.S. EPA Water Division Director within one year of the effective date of this Order and shall submit the special study final report with the application for permit reissuance.

8. Efficacy of Combined Sewer System Controls Special Study

By August 1, 2023, the Discharger shall submit a report to the Regional Water Board and U.S. EPA evaluating the quality of the combined sewer discharges and the efficacy of the combined sewer discharge controls during wet weather (i.e., control of solid and floatable

material in combined sewer discharges) at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007. At a minimum, the Discharger shall monitor for TSS, copper, lead, and zinc. The Discharger shall also evaluate floatables removal.

ATTACHMENT A – DEFINITIONS

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 maintenance of natural water quality is assured. All Areas of Special Biological Significance are also classified as 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.

Bioaccumulative

Taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Chlordane

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

Combined Sewer Discharge

Authorized combined sewer overflow during a wet weather day from an approved combined sewer discharge point. Table 2 of the Order lists approved combined sewer discharge points.

Combined Sewer Discharge Event

Discharge from one or more approved combined sewer discharge points during wet weather separated by at least six hours from any other combined sewer discharge event. Table 2 of the Order lists approved combined sewer discharge points.

Combined Sewer Overflow

The *Combined Sewer Overflow (CSO) Control Policy* defines a combined sewer overflow as the discharge from a combined sewer system at a point prior to the POTW's treatment plant.

Daily Discharge

Either: (1) total mass of the constituent discharged over a 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) unweighted arithmetic mean measurement of the constituent over a 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 a day.

For composite sampling, if a 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.

Degrade

Degradation shall be determined by comparison of the waste field and reference site or 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-dichlorobenzene and 1,3-dichlorobenzene.

Dilution Credit

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

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).

Effective Concentration (EC)

Point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-

Karber. EC₂₅ is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

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, endosulfan-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).

In-Stream Waste Concentration (IWC)

The concentration of a toxicant in the receiving water after mixing.

Kelp Beds

For purposes of the 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

- (a) In common usage: (1) the substance or substances of which a thing is made or composed, (2) substantial;
- (b) For Ocean Plan purposes relating to waste disposal, dredging, and the disposal of dredged material and fill: 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 reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 C.F.R. part 136, Appendix 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.

Natural Light

Reduction of natural light may be determined by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board or U.S. EPA.

No Observed Effect Concentration (NOEC)

Highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

Not Detected (ND)

Sample results less than the laboratory's MDL.

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 PMP goal shall be to reduce potential sources through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board and U.S. EPA may consider cost effectiveness when establishing PMP requirements. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), fulfill the 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 Plan 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.

Sewer Overflow from the Combined Sewer System

Release or diversion of untreated or partially-treated wastewater or combined wastewater and stormwater from the combined sewer collection system. Sewer overflows from the combined sewer system can occur in public rights of way or on private property. Sewer overflows from the combined sewer system do not include releases due to failures in privately-owned sewer laterals or authorized combined sewer discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007.

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) previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of SWQPAs and require the special protections the Ocean Plan affords.

TCDD Equivalents

Sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective Toxicity Equivalency Factors (TEFs) and Bioaccumulation Equivalency Factors (BEFs), as defined in Table A-1. When calculating TCDD Equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. This approach is based on 40 C.F.R. part 132, Appendix F, Procedure 4, Tables 1 and 2, and TEFs listed in the Ocean Plan. This TCDD equivalents definition supersedes the dioxin-TEQ definition in Attachment G section V.C.1.d.iv.

Table A-1. Minimum Levels, Toxicity Equivalency Factors, and Bioaccumulation Equivalency Factors

Isomer Group	Minimum Level (pg/L)	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	0.5	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	0.001	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	0.001	0.02

Test of Significant Toxicity (TST)

A statistical approach used to analyze toxicity test data. The TST statistical approach is described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).

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

Waste

As used in the Ocean Plan, a Discharger's total discharge, of whatever origin (i.e., gross, not net, discharge).

Water Recycling

Treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the 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 Oceanside Water Pollution Control Plant exceeds 43 MGD; or
2. Average daily influent concentration of TSS is less than 100 mg/L; or
3. Westside Transport/Storage Structure flow elevation exceeds 0 feet in the West Box or 18 feet in the East Box. (Flow from the East Box to the West Box occurs only when the East Box storage level exceeds 18 feet.)

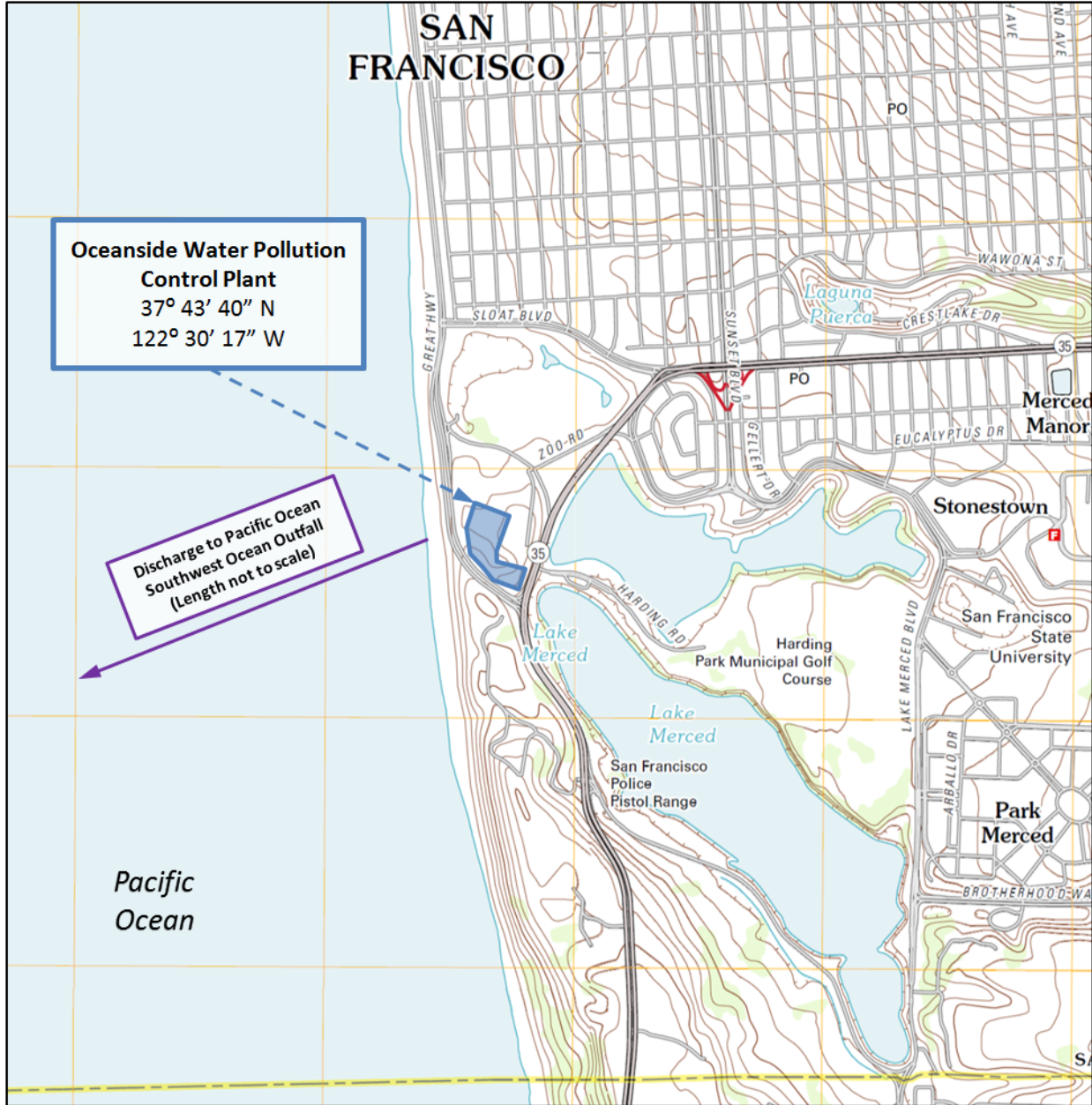
ATTACHMENT B – FACILITY AND RECEIVING WATER MAPS

Figure B-1. Facility Overview Map



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

Figure B-2. Topographical Map



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

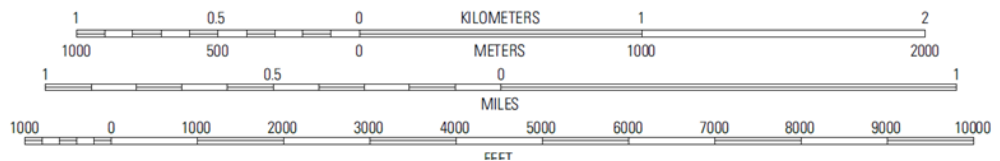
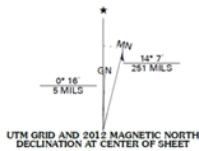


Figure B-3. Oceanside Water Pollution Control Plant Map

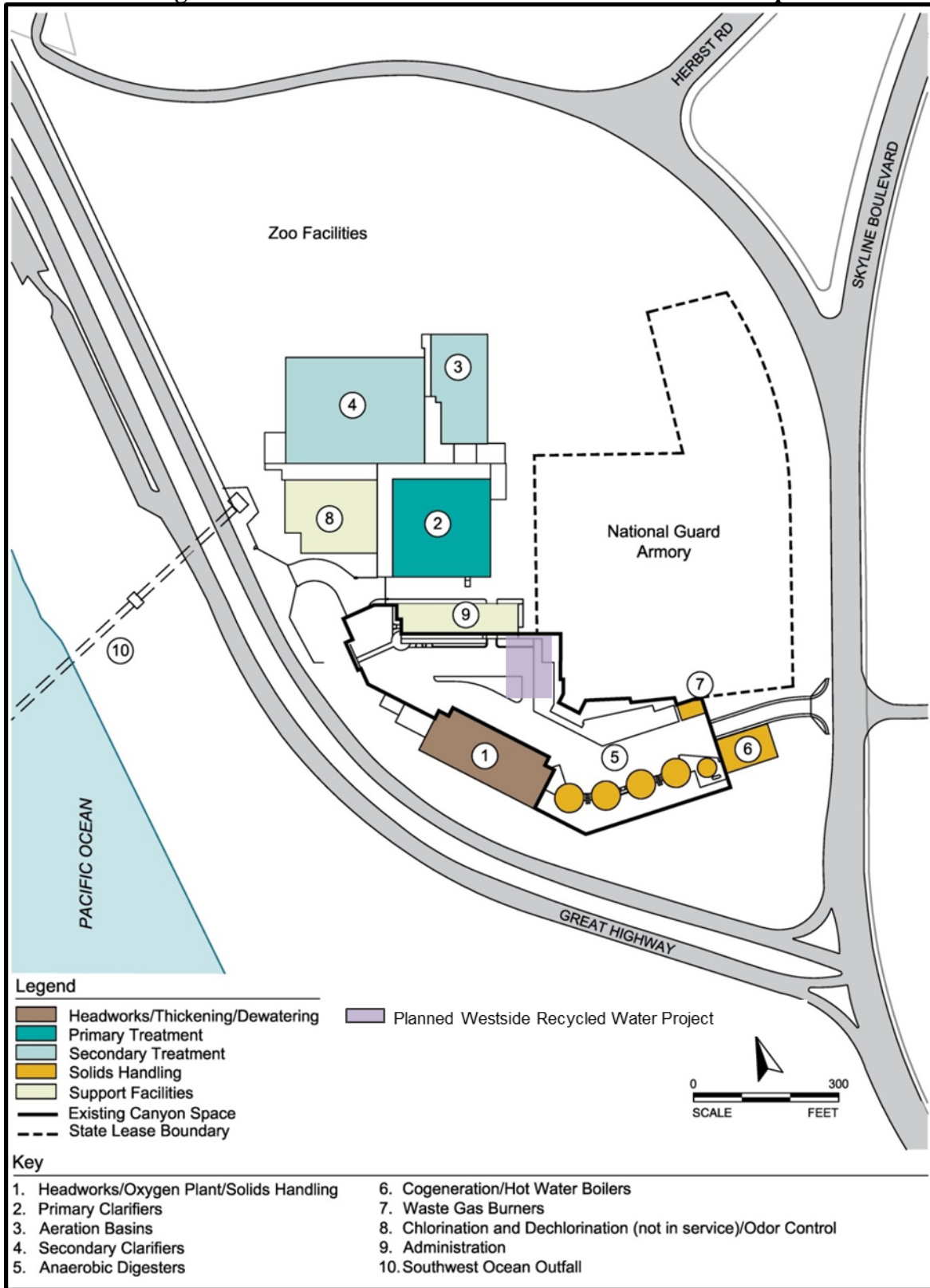


Figure B-4. Combined Sewer Discharge and Pump Station Locations

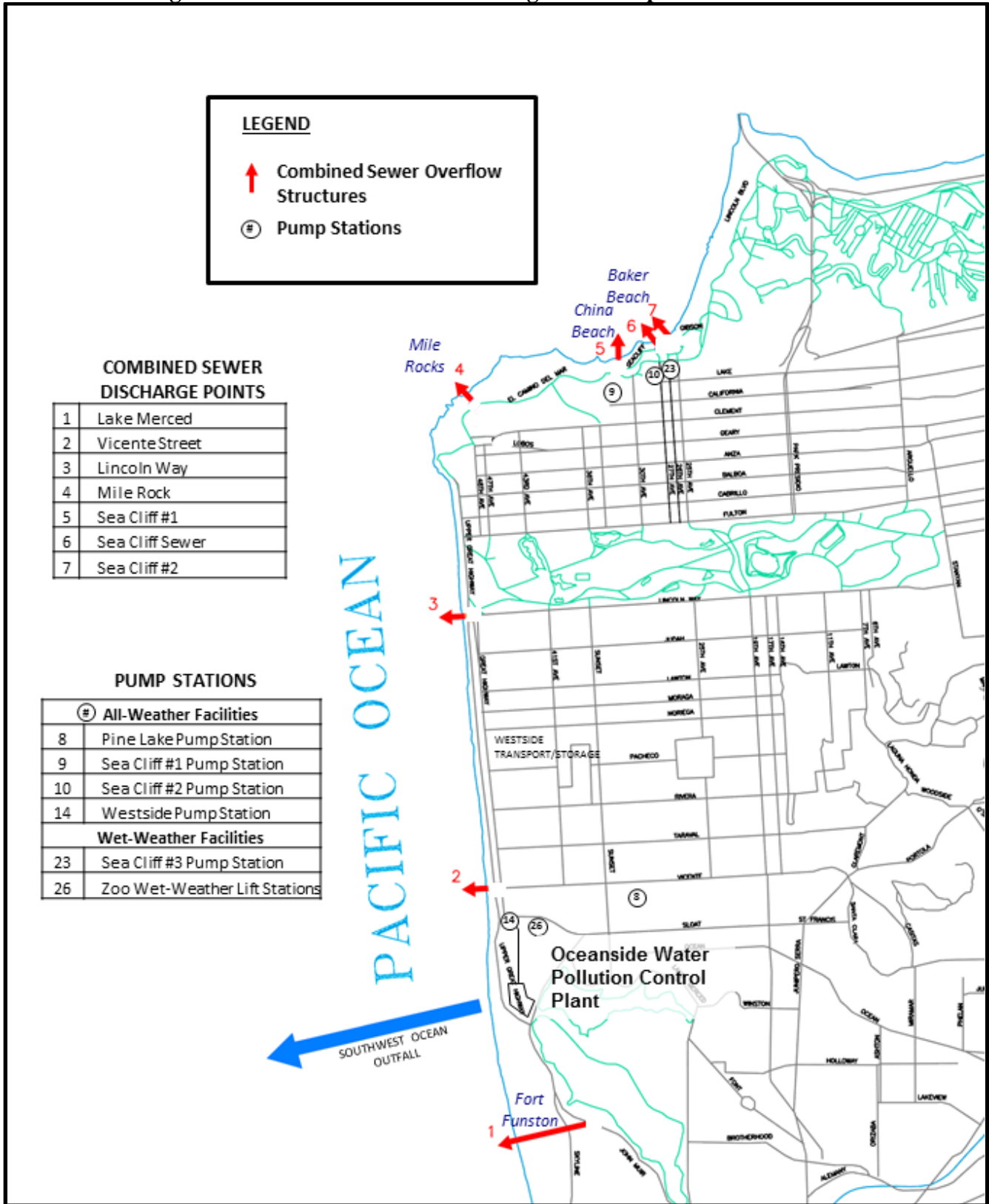


Figure B-5. Combined Sewer Discharge and Transport/Storage Structure Locations

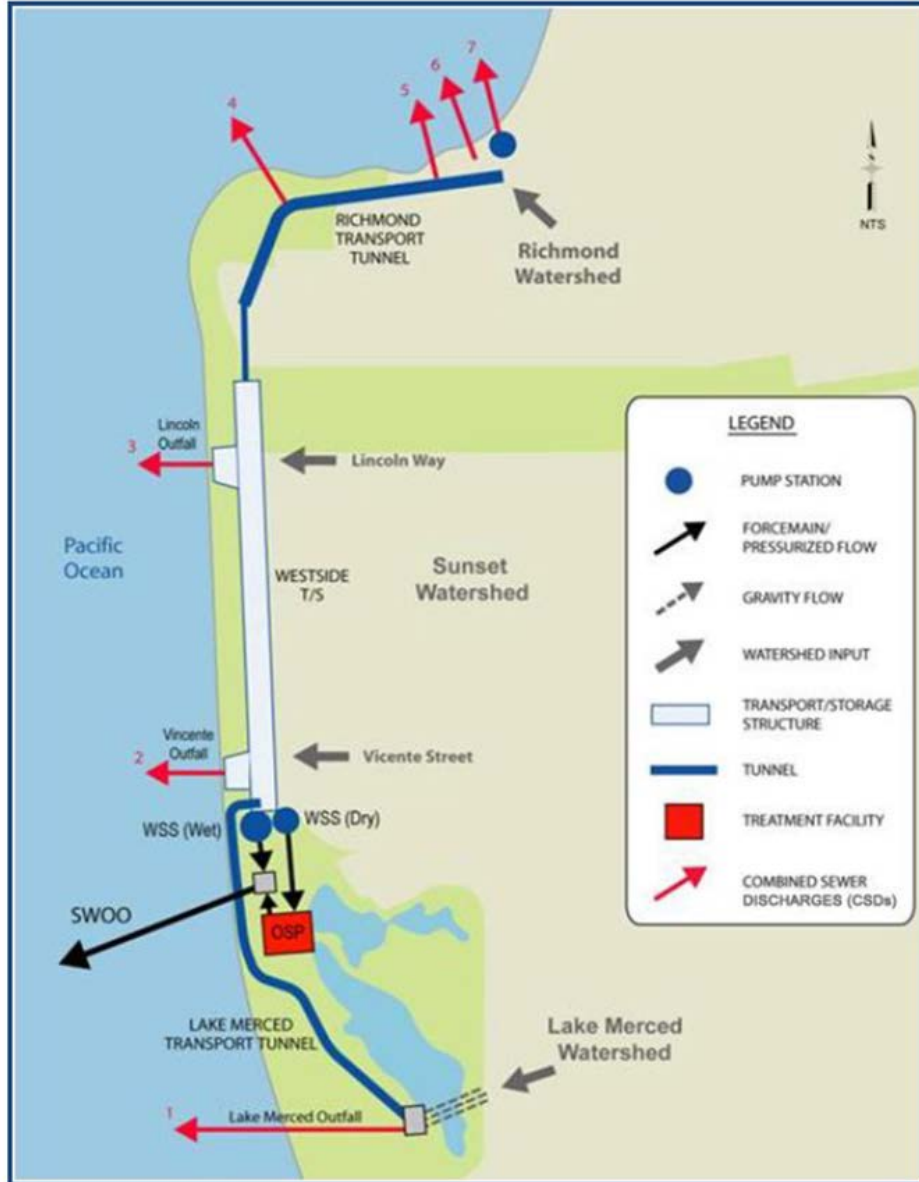
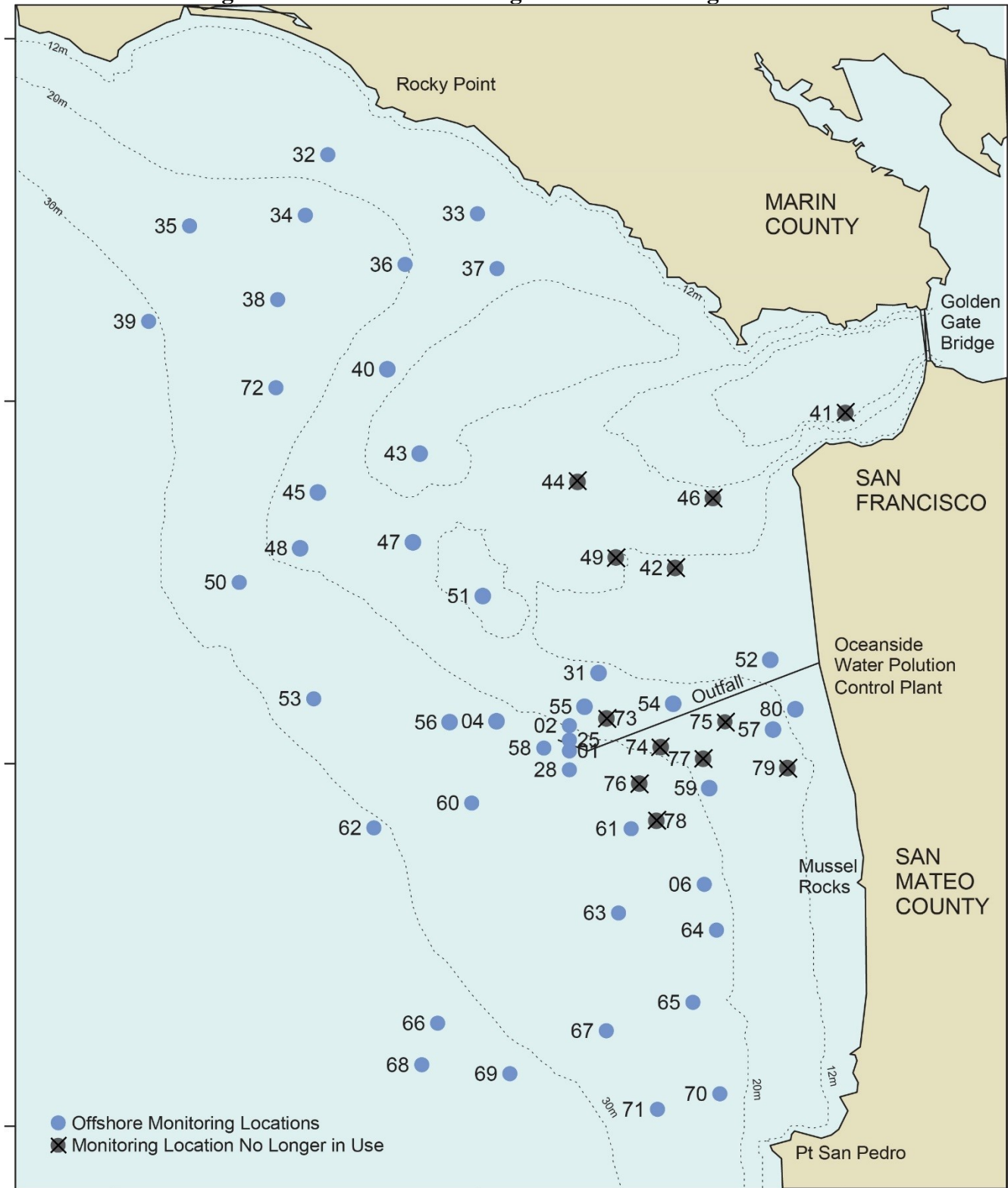


Figure B-6. Shoreline Receiving Water Monitoring Locations



Figure B-7. Offshore Receiving Water Monitoring Locations



ATTACHMENT C – PROCESS FLOW SCHEMATICS

Figure C-1. Oceanside Water Pollution Control Plant Process Flow

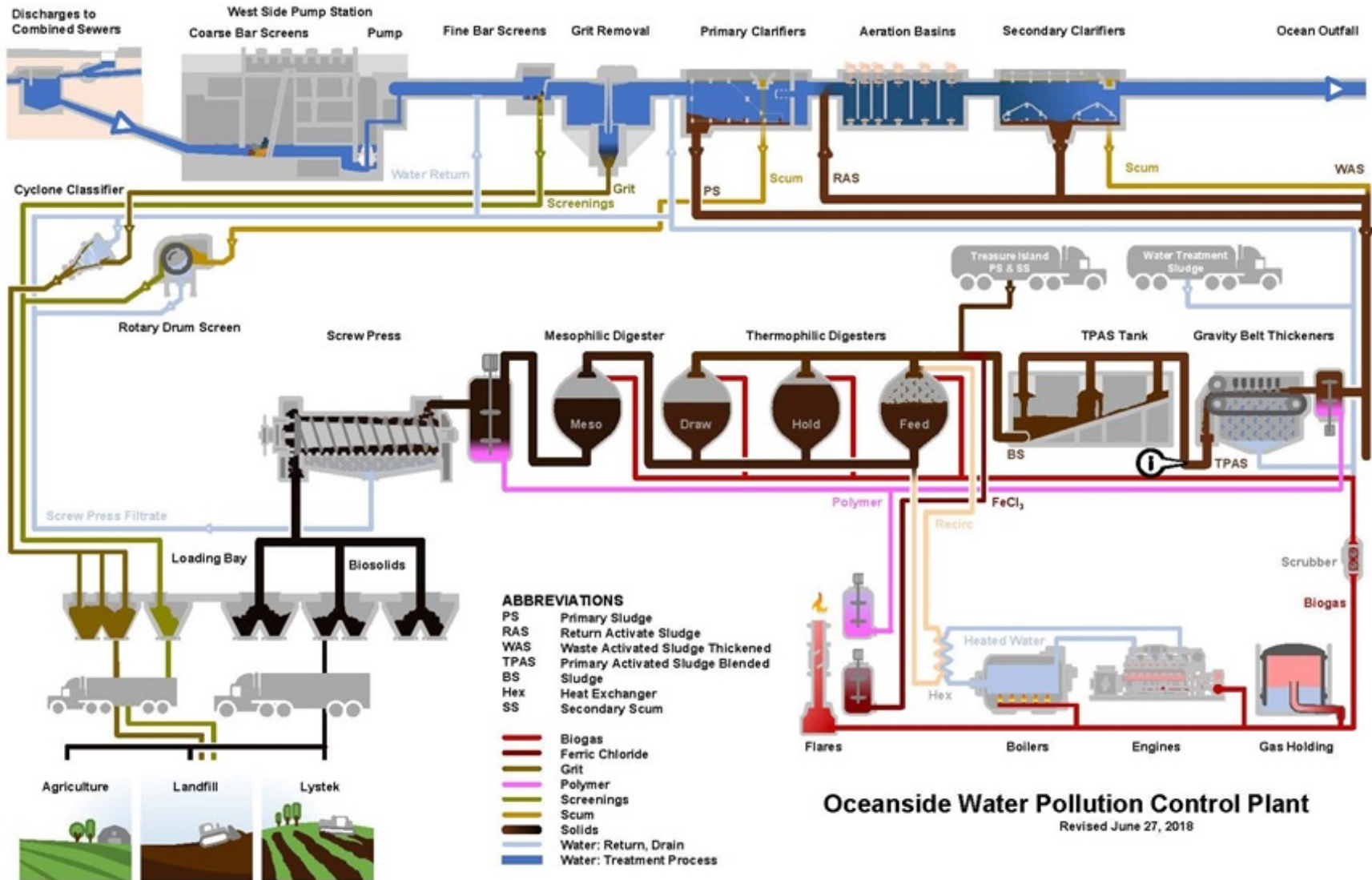
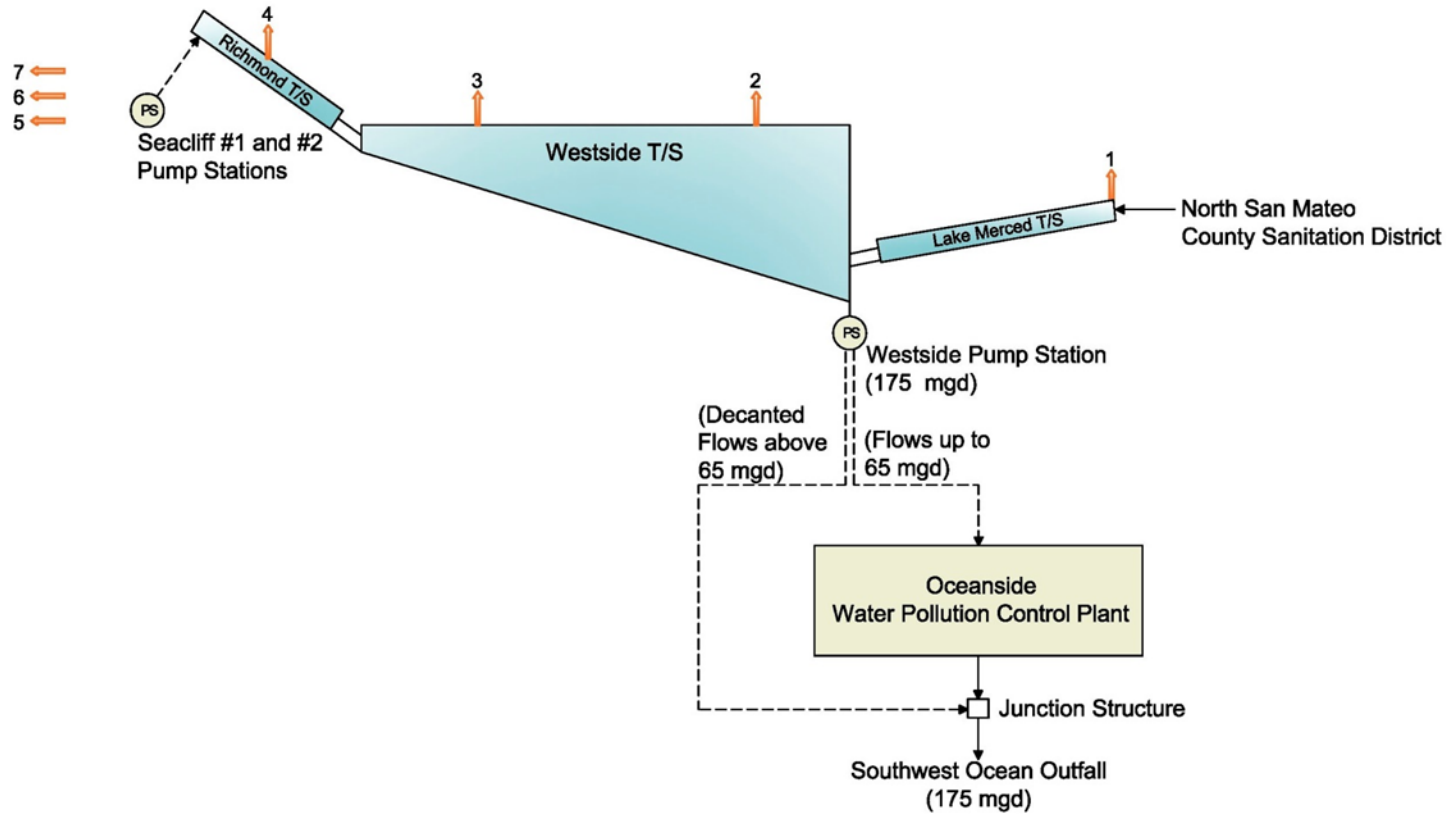
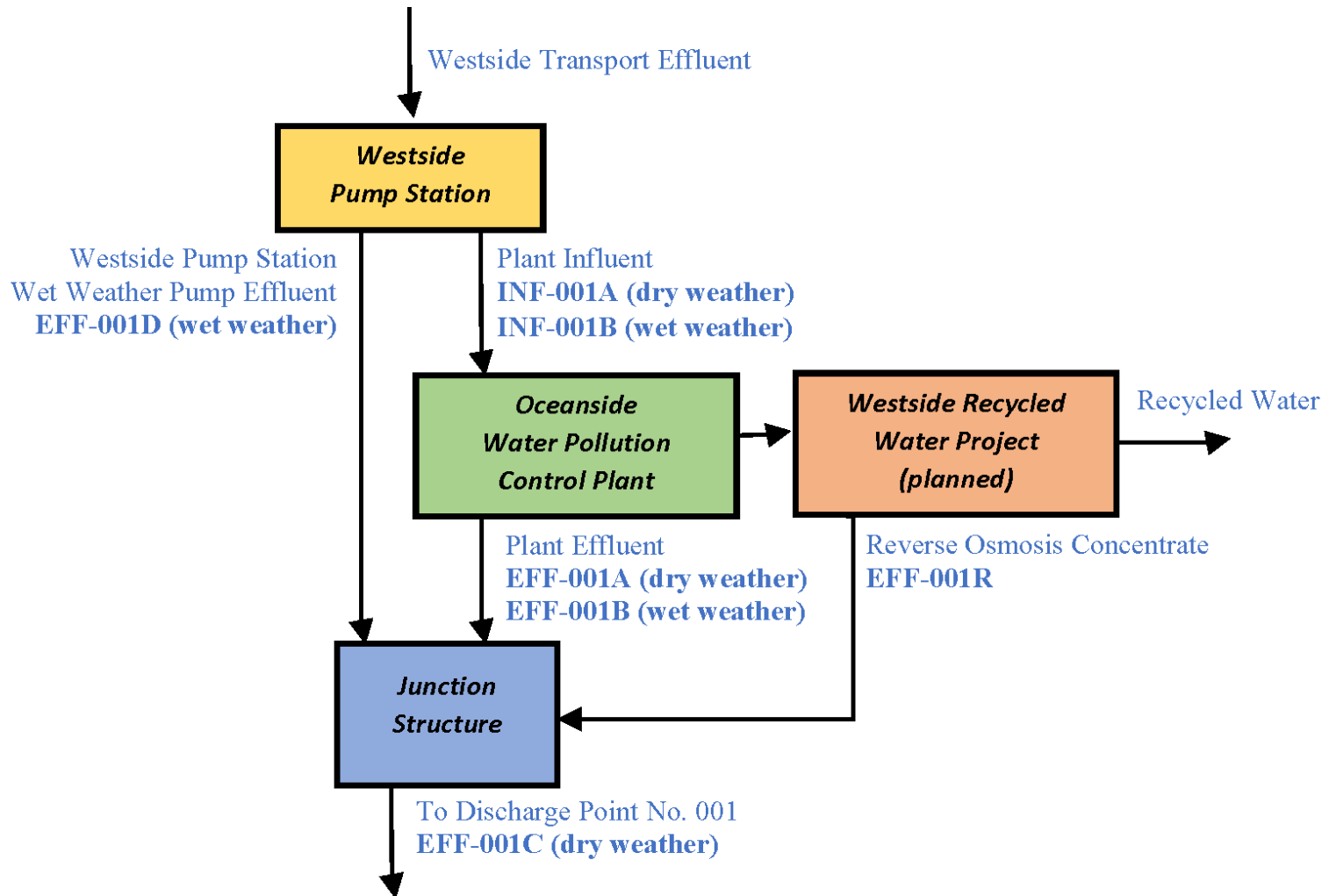


Figure C-2. Oceanside Water Pollution Control Plant Wet Weather Operations



Pump/Lift Stations		CSD Number and Name	Transport/Storage Structures		Legend
Peak Wet-Weather Flows (mgd)			Name	Usable Storage (MG)	
Name		CSD-001 Lake Merced	Richmond Transport	12.0	CSD Combined Sewer Discharge
Seacliff #1	0.005	CSD-002 Vicente Street	Westside Transport	49.3	MG million gallons
Seacliff #2	0.090	CSD-003 Lincoln Way	Lake Merced Transport	10.0	mgd million gallons per day
Westside	175.000	CSD-004 Mile Rock			T/S Transport/Storage Structure
		CSD-005 Seacliff #1 PS			--- Force Main
		CSD-006 Seacliff			→ Gravity Flow Lines
		CSD-007 Seacliff #2 PS			# ← Combined Sewer Discharge
					(PS) Pump Station

Figure C-3. Oceanside Water Pollution Control Plant and Planned Westside Recycled Water Project Monitoring Locations
(see Monitoring and Reporting Program [MRP] Table E-1 in Attachment E of this Order for monitoring location descriptions)



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; for permit termination, revocation and reissuance, or modification; or 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.)
2. The Discharger shall comply with effluent standards or prohibitions established under CWA section 307(a) for toxic pollutants 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 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).)

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

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, 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 assuring 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).)

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

- 3. Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 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).)
- 4. Approval.** 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).)

5. Notice

- a. Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Regional Water Board. As of December 21, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions—Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)
- b. Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions—Reporting V.E below (24-hour notice). The notice shall be sent to the Regional Water Board. As of December 21, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions—Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (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 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. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either (a) the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter, or (b) the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N, for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS—RECORDS

- A.** 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 the following:
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) the 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

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions—Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k).)
2. 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).)
- 6.** Any person providing the electronic signature for documents described in Standard Provisions—V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions—Reporting V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R. § 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. (40 C.F.R. § 122.22(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions—Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (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. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR reporting form specified by the Regional Water Board or State 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written report 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.

For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Regional Water Board and must be

submitted electronically to the initial recipient defined in Standard Provisions—Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours:
 - 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 40 C.F.R. 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 not subject to effluent limitations in this Order. (Alternatively, for an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a), this notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1).) (40 C.F.R. § 122.41(l)(1)(ii).)

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 Provisions—Reporting V.E above. For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provisions—

Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(1)(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(1)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group (see 40 C.F.R. § 127.2(c)). U.S. EPA will update and maintain this list. (40 C.F.R. § 122.41(1)(9).)

VI. STANDARD PROVISIONS—ENFORCEMENT

- A.** The Regional Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13268, 13350, 13385, 13386, and 13387.

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 ($\mu\text{g/L}$) (40 C.F.R. § 122.42(a)(1)(i));
 - b.** 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ 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 40 C.F.R. 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 ($\mu\text{g/L}$) (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 40 C.F.R. 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 CWA sections 301 or 306 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 this 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).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Clean Water Act section 308 and 40 C.F.R. sections 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 Regional Water Board Executive Officer and U.S. EPA 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.
- C.** The Discharger shall ensure that results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address or as otherwise directed:
 - State Water Resources Control Board
 - Quality Assurance Program Officer
 - Office of Information Management and Analysis
 - 1001 I Street, Sacramento, CA 95814
- D.** The Discharger shall implement a Quality Assurance-Quality Control Program for any onsite field tests (e.g., turbidity, pH, temperature, dissolved oxygen, conductivity, disinfectant residual) analyzed by a noncertified laboratory. The Discharger shall keep a manual onsite containing the steps followed in this program and must demonstrate sufficient capability to adequately perform these field tests (e.g., qualified and trained employees, properly calibrated and maintained field instruments). The program shall conform to U.S. EPA guidelines or other approved procedures.

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 Locations

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
Oceanside Water Pollution Control Plant Influent (dry weather)	INF-001A	During dry weather, any point in the plant headworks where all waste tributary to the plant is present and preceding any phase of treatment at the plant, exclusive of any return flows or process side streams.

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
Oceanside Water Pollution Control Plant Influent (wet weather)	INF-001B	During wet weather, any point in the plant headworks where all waste tributary to the plant is present and preceding any phase of treatment at the plant, exclusive of any return flows or process side streams.
Oceanside Water Pollution Control Plant Effluent (dry weather)	EFF-001A	During dry weather, any point at the plant following all phases of treatment, prior to contact with Westside Recycled Water Project concentrate and the receiving water at Discharge Point No. 001.
Oceanside Water Pollution Control Plant Effluent (wet weather)	EFF-001B	During wet weather, any point at the plant following all phases of treatment, prior to contact with Westside Transport/Storage Structure effluent, Westside Recycled Water Project concentrate, and the receiving water at Discharge Point No. 001.
Oceanside Water Pollution Control Plant Effluent and Westside Recycled Water Project Concentrate (dry weather)	EFF-001C	During dry weather, any point at which all plant effluent and Westside Recycled Water Project concentrate tributary to Discharge Point No. 001 is present and after all phases of treatment. The Discharger may combine 24-hour composite samples from Monitoring Locations EFF-001A and EFF-001R to create a volumetrically flow-weighted representative sample for Monitoring Location EFF-001C.
Westside Transport/Storage Structure Effluent (wet weather) (identified in the previous order as “decant”)	EFF-001D	During wet weather, any point following the Westside Pump Station wet weather pumps, prior to contact with treated plant effluent, Westside Recycled Water Project concentrate, and the receiving water at Discharge Point No. 001.
Westside Recycled Water Project Reverse Osmosis Concentrate	EFF-001R	Any point at the Westside Recycled Water Project following all phases of treatment, prior to contact with plant effluent, Westside Transport/Storage Structure effluent, and the receiving water at Discharge Point No. 001.
Combined Sewer Discharge Effluent	EFF-CSD	A monitoring location representative of combined sewer discharges from the Westside Transport/Storage Structure.
Shoreline Receiving Water	SRF-15	Nearshore receiving water along Baker Beach, in the surf at the terminus of Lobos Creek.
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-16	Nearshore receiving water along Baker Beach, in the surf opposite the Sea Cliff No. 2 Pump Station.
Shoreline Receiving Water	SRF-17	Nearshore receiving water along China Beach, in the surf opposite the Sea Cliff No. 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 Combined Sewer Discharge Structure.
Shoreline Receiving Water	SRF-20	Nearshore receiving water along Ocean Beach, in the surf at the foot of Pacheco Street.
Shoreline Receiving Water	SRF-21	Nearshore receiving water along Ocean Beach, in the surf at the foot of Vicente Street, opposite the Vicente Combined Sewer Discharge Structure.
Shoreline Receiving Water	SRF-21.1	Nearshore receiving water along Ocean Beach, in the surf at the foot of Sloat Boulevard.

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
Shoreline Receiving Water	SRF-22	Nearshore receiving water along Ocean Beach, in the surf at Fort Funston, opposite the Lake Merced Combined Sewer Discharge Structure.
Offshore Receiving Water	Station 1	Offshore monitoring program station location. <i>Longitude -122.57533°, Latitude 37.70333°</i>
Offshore Receiving Water	Station 2	Offshore monitoring program station location. <i>Longitude -122.57500°, Latitude 37.71050°</i>
Offshore Receiving Water	Station 4	Offshore monitoring program station location. <i>Longitude -122.59500°, Latitude 37.71167°</i>
Offshore Receiving Water	Station 6	Offshore monitoring program station location. <i>Longitude -122.53750°, Latitude 37.66667°</i>
Offshore Receiving Water	Station 25	Offshore monitoring program station location. <i>Longitude -122.57500°, Latitude 37.70383°</i>
Offshore Receiving Water	Station 28	Offshore monitoring program station location. <i>Longitude -122.57467°, Latitude 37.69833°</i>
Offshore Receiving Water	Station 31	Offshore monitoring program station location. <i>Longitude -122.56717°, Latitude 37.72467°</i>
Offshore Receiving Water	Station 32 (formerly R1)	Offshore monitoring program station location. <i>Longitude -122.64128°, Latitude 37.86799°</i>
Offshore Receiving Water	Station 33 (formerly R2)	Offshore monitoring program station location. <i>Longitude -122.60024°, Latitude 37.85171°</i>
Offshore Receiving Water	Station 34 (formerly R3)	Offshore monitoring program station location. <i>Longitude -122.64744°, Latitude 37.85129°</i>
Offshore Receiving Water	Station 35 (formerly R4)	Offshore monitoring program station location. <i>Longitude -122.67920°, Latitude 37.84832°</i>
Offshore Receiving Water	Station 36 (formerly R5)	Offshore monitoring program station location. <i>Longitude -122.62008°, Latitude 37.83773°</i>
Offshore Receiving Water	Station 37 (formerly R6)	Offshore monitoring program station location. <i>Longitude -122.59485°, Latitude 37.83656°</i>
Offshore Receiving Water	Station 38 (formerly R7)	Offshore monitoring program station location. <i>Longitude -122.65501°, Latitude 37.82802°</i>
Offshore Receiving Water	Station 39 (formerly R8)	Offshore monitoring program station location. <i>Longitude -122.69042°, Latitude 37.82200°</i>
Offshore Receiving Water	Station 40 (formerly R9)	Offshore monitoring program station location. <i>Longitude -122.62493°, Latitude 37.80880°</i>
Offshore Receiving Water	Station 43 (formerly R12)	Offshore monitoring program station location. <i>Longitude -122.61608°, Latitude 37.78552°</i>
Offshore Receiving Water	Station 45 (formerly R14)	Offshore monitoring program station location. <i>Longitude -122.64399°, Latitude 37.77483°</i>
Offshore Receiving Water	Station 47 (formerly R16)	Offshore monitoring program station location. <i>Longitude -122.61792°, Latitude 37.76106°</i>
Offshore Receiving Water	Station 48 (formerly R17)	Offshore monitoring program station location. <i>Longitude -122.64888°, Latitude 37.75941°</i>
Offshore Receiving Water	Station 50 (formerly R19)	Offshore monitoring program station location. <i>Longitude -122.66556°, Latitude 37.75000°</i>

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
Offshore Receiving Water	Station 51 (formerly R20)	Offshore monitoring program station location. <i>Longitude -122.59875°, Latitude 37.74622°</i>
Offshore Receiving Water	Station 52 (formerly R21)	Offshore monitoring program station location. <i>Longitude -122.51989°, Latitude 37.72863°</i>
Offshore Receiving Water	Station 53 (formerly R22)	Offshore monitoring program station location. <i>Longitude -122.64514°, Latitude 37.71787°</i>
Offshore Receiving Water	Station 54 (formerly R23)	Offshore monitoring program station location. <i>Longitude -122.54650°, Latitude 37.71651°</i>
Offshore Receiving Water	Station 55 (formerly R24)	Offshore monitoring program station location. <i>Longitude -122.57086°, Latitude 37.71569°</i>
Offshore Receiving Water	Station 56 (formerly R25)	Offshore monitoring program station location. <i>Longitude -122.60786°, Latitude 37.71146°</i>
Offshore Receiving Water	Station 57 (formerly R26)	Offshore monitoring program station location. <i>Longitude -122.51912°, Latitude 37.70940°</i>
Offshore Receiving Water	Station 58 (formerly R27)	Offshore monitoring program station location. <i>Longitude -122.58201°, Latitude 37.70430°</i>
Offshore Receiving Water	Station 59 (formerly R28)	Offshore monitoring program station location. <i>Longitude -122.53662°, Latitude 37.69324°</i>
Offshore Receiving Water	Station 60 (formerly R29)	Offshore monitoring program station location. <i>Longitude -122.60180°, Latitude 37.68914°</i>
Offshore Receiving Water	Station 61 (formerly R30)	Offshore monitoring program station location. <i>Longitude -122.55807°, Latitude 37.68204°</i>
Offshore Receiving Water	Station 62 (formerly R31)	Offshore monitoring program station location. <i>Longitude -122.62865°, Latitude 37.68227°</i>
Offshore Receiving Water	Station 63 (formerly R32)	Offshore monitoring program station location. <i>Longitude -122.56150°, Latitude 37.65879°</i>
Offshore Receiving Water	Station 64 (formerly R33)	Offshore monitoring program station location. <i>Longitude -122.53465°, Latitude 37.65406°</i>
Offshore Receiving Water	Station 65 (formerly R34)	Offshore monitoring program station location. <i>Longitude -122.54111°, Latitude 37.63414°</i>
Offshore Receiving Water	Station 66 (formerly R35)	Offshore monitoring program station location. <i>Longitude -122.61113°, Latitude 37.62840°</i>
Offshore Receiving Water	Station 67 (formerly R36)	Offshore monitoring program station location. <i>Longitude -122.56486°, Latitude 37.62633°</i>
Offshore Receiving Water	Station 68 (formerly R37)	Offshore monitoring program station location. <i>Longitude -122.61549°, Latitude 37.61694°</i>
Offshore Receiving Water	Station 69 (formerly R38)	Offshore monitoring program station location. <i>Longitude -122.59134°, Latitude 37.61449°</i>
Offshore Receiving Water	Station 70 (formerly R39)	Offshore monitoring program station location. <i>Longitude -122.53371°, Latitude 37.60893°</i>
Offshore Receiving Water	Station 71 (formerly R40)	Offshore monitoring program station location. <i>Longitude -122.55084°, Latitude 37.60465°</i>
Offshore Receiving Water	Station 72 (formerly R41)	Offshore monitoring program station location. <i>Longitude -122.65550°, Latitude 37.80367°</i>
Offshore Receiving Water	Station 80 (formerly R49)	Offshore monitoring program station location. <i>Longitude -122.51500°, Latitude 37.71500°</i>

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
Biosolids	BIO-001	Biosolids (treated sludge)

Footnote:

^[1] Latitude and longitude information is approximate.

III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor Oceanside Water Pollution Control Plant influent at Monitoring Location INF-001A during dry weather and Monitoring Location INF-001B during wet weather as follows:

Table E-2. Plant Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency ^[2]
Flow ^[1]	MG/MGD	Continuous	Continuous/D
Carbonaceous Biochemical Oxygen Demand (5-day @ 20°C)(CBOD ₅)	mg/L	C-24	1/Week
Total Suspended Solids (TSS)	mg/L	C-24	5/Week

Abbreviations:

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

Sample Types and Frequencies:

Continuous = measured continuously
 Continuous/D = measured continuously, and recorded and reported daily
 C-24 = 24-hour composite
 1/Week = once per week
 5/Week = five times per week

Footnotes:

^[1] The following information shall be reported in monthly self-monitoring reports:

- Daily average flow (MGD)
- Total monthly flow volume (MG)

^[2] The minimum sampling frequency is the total number of influent samples to be collected during the specified sampling period, including samples collected during dry and wet weather at Monitoring Locations INF-001A and INF-001B.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Oceanside Water Pollution Control Plant

1. **Dry and Wet Weather.** The Discharger shall monitor plant effluent at Monitoring Location EFF-001A during dry weather and at Monitoring Location EFF-001B during wet weather as follows:

Table E-3. Plant Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]
Flow ^[1]	MG/MGD	Continuous	Continuous/D
CBOD ₅ ^[2]	mg/L	C-24	1/Week
TSS	mg/L	C-24	5/Week
pH	standard units	Continuous or Grab	1/Week

Abbreviations:

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

Sample Types and Frequencies:

Continuous = measured continuously
 Continuous/D = measured continuously, and recorded and reported daily
 C-24 = 24-hour composite
 Grab = grab sample
 1/Week = once per week
 5/Week = five times per week

Footnotes:

- ^[1] The following information shall be reported in monthly self-monitoring reports:
- Daily average flow (MGD)
 - Total monthly flow volume (MG)
- ^[2] The Discharger may monitor Chemical Oxygen Demand at Monitoring Location EFF-001B in lieu of CBOD₅ during wet weather.
- ^[3] The minimum sampling frequency is the total number of effluent samples to be collected during the specified sampling period, including samples collected during dry and wet weather at Monitoring Locations EFF-001A and EFF-001B.

2. Dry Weather. During dry weather, the Discharger shall monitor plant effluent at Monitoring Location EFF-001A as follows:

Table E-4. Dry Weather Plant Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Oil and Grease	mg/L	Grab	1/Quarter
Ammonia, total	mg/L as N	C-24	1/Quarter
Arsenic	µg/L	C-24	1/Quarter
Cadmium	µg/L	C-24	1/Quarter
Copper	µg/L	C-24	1/Quarter
Lead	µg/L	C-24	1/Quarter
Nickel	µg/L	C-24	1/Quarter
Selenium	µg/L	C-24	1/Quarter
Silver	µg/L	C-24	1/Quarter
Zinc	µg/L	C-24	1/Quarter
Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C-24 ^[2]	1/Year

Abbreviations:

mg/L = milligrams per liter
 mg/L as N = milligrams per liter as nitrogen
 µg/L = micrograms per liter

Sample Types and Frequencies:

C-24 = 24-hour composite
 Grab = grab sample
 1/Quarter = once per quarter
 1/Year = once per year

Footnotes:

- [1] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
 [2] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.

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

Table E-5. Wet Weather Plant Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Duration of Blending ^[1]	minutes	Calculated	Continuous/D
Volume of Blended Wastewater Discharged ^[1]	MG	Calculated	Continuous/D
Ocean Plan Table 1 Pollutants ^[2]	µg/L	C-24 ^[3]	1/Year

Abbreviations:

MG = million gallons
 µg/L = micrograms per liter

Sample Types and Frequencies:

Continuous/D = measured continuously, and recorded and reported daily
 C-24 = 24-hour composite
 1/Year = once per year

Footnotes:

- [1] Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. For each day on which blending occurs, the Discharger shall report the duration of blending and the volume of primary-only-treated wastewater blended.
 [2] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
 [3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.

B. Combined Sewer System

1. Westside Transport/Storage Structure Effluent. During wet weather, the Discharger shall monitor Westside Transport/Storage Structure effluent at Monitoring Location EFF-001D as shown in Table E-6.

Table E-6. Westside Transport/Storage Structure Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Volume ^[1]	MG	Continuous	Continuous/D
TSS	mg/L	C-X ^[3]	3/Year
Ammonia, total	mg/L as N	C-X ^[3]	3/Year
Arsenic	µg/L	C-X ^[3]	3/Year

Parameter	Units	Sample Type	Minimum Sampling Frequency
Cadmium	µg/L	C-X ^[3]	3/Year
Copper	µg/L	C-X ^[3]	3/Year
Lead	µg/L	C-X ^[3]	3/Year
Nickel	µg/L	C-X ^[3]	3/Year
Selenium	µg/L	C-X ^[3]	3/Year
Silver	µg/L	C-X ^[3]	3/Year
Zinc	µg/L	C-X ^[3]	3/Year
Remaining Ocean Plan Table 1 Pollutants ^[2]	µg/L	C-X ^[3,4]	1/Year

Abbreviations:

MG = million gallons
 mg/L = milligrams per liter
 mg/L as N = milligrams per liter as nitrogen
 µg/L = micrograms per liter

Sample Types and Frequencies:

Continuous = measured continuously
 Continuous/D = measured continuously, and recorded and reported daily
 C-X = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until sufficient sample volume for the required analyses are completed.
 1/Year = once per year
 3/Year = three times per year

Footnotes:

- ^[1] The following information shall be reported in monthly self-monitoring reports:
- Total daily flow volume from the Westside Transport/Storage Structure to Discharge Point No. 001
 - Total monthly flow volume from the Westside Transport/Storage Structure to Discharge Point No. 001
- ^[2] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
- ^[3] If the discharge lasts less than 24 hours, the Discharger shall sample at equal intervals for as long as possible and record the duration. The Discharger shall begin collecting aliquots or grab samples within two hours of commencing discharge from the Westside Transport/Storage Structure directly to Discharge Point No. 001.
- ^[4] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.

2. Combined Sewer Discharges

- a. During combined sewer discharge events, the Discharger shall monitor combined sewer discharge effluent at Monitoring Location EFF-CSD as follows:

Table E-7. Combined Sewer Discharge Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
TSS	mg/L	C-X ^[2]	1/Event
Ammonia, total	mg/L as N	C-X ^[2]	1/Event
Arsenic	µg/L	C-X ^[2]	1/Event
Cadmium	µg/L	C-X ^[2]	1/Event
Copper	µg/L	C-X ^[2]	1/Event
Lead	µg/L	C-X ^[2]	1/Event
Nickel	µg/L	C-X ^[2]	1/Event
Selenium	µg/L	C-X ^[2]	1/Event

Parameter	Units	Sample Type	Minimum Sampling Frequency
Silver	µg/L	C-X ^[2]	1/Event
Zinc	µg/L	C-X ^[2]	1/Event
Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C-X ^[2,3]	1/Year

Abbreviations:

mg/L = milligrams per liter
 mg/L as N = milligrams per liter as nitrogen
 µg/L = micrograms per liter

Sample Types and Frequencies:

C-X = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until a sufficient sample volume for the required analysis is obtained.
 Grab = grab sample
 1/Event = once per combined sewer discharge event
 1/Year = once per year

Footnotes:

- ^[1] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, chronic toxicity, and volatile organic compounds. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
^[2] If the discharge lasts less than 24 hours, the Discharger shall sample for as long as possible at equal intervals and record the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample.
^[3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a composite sample.

- b.** The Discharger shall record and report in each self-monitoring report the following information for each discharge at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007:
- i.** Date and time the combined sewer discharge started;
 - ii.** Event duration (in minutes) and volume (in million gallons);
 - iii.** Rainfall intensity and amount (in inches per day and peak hourly rainfall intensity per day) at representative locations where rainfall was measured;
 - iv.** Information supporting discharge volume estimates (if estimated); and
 - v.** Documentation of compliance or noncompliance with each wet weather operational requirement in Provision VI.C.5.c of the Order.

C. Westside Recycled Water Project

When the Westside Recycled Water Project is operating, the Discharger shall monitor reverse osmosis concentrate at Monitoring Location EFF-001R as follows:

Table E-8. Westside Recycled Water Project Concentrate Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow ^[1]	MG/MGD	Continuous	Continuous/D
TSS	mg/L	C-24	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Continuous or Grab	1/Month
Settleable Solids	mL/L	Grab or C-24	1/Month
Turbidity	NTU	C-24	1/Month
Oil and Grease	mg/L	Grab	1/Quarter
Ocean Plan Table 1 Pollutants ^[2]	µg/L	C-24 ^[3]	1/Year

Abbreviations:

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

Sample Types and Frequencies:

- Continuous = measured continuously
 Continuous/D = measured continuously, and recorded and reported daily
 C-24 = 24-hour composite
 Grab = grab sample
 1/Month = once per month
 1/Quarter = once per quarter
 1/Year = once per year

Footnotes:

- ^[1] The following information shall be reported in monthly self-monitoring reports:
- Daily average flow (MGD)
 - Total monthly flow volume (MG)
- ^[2] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
- ^[3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.

D. Discharge Point No. 001

During dry weather, the Discharger shall monitor discharges at Discharge Point No. 001 at Monitoring Location EFF-001C as specified in Table E-9, below. If during the year the discharge at Discharge Point No. 001 is ever entirely reverse osmosis concentrate, the Discharger shall collect at least one sample during that time, if feasible. Otherwise, the Discharger shall collect samples when the Recycled Water Project is operating, if possible.

Table E-9. Dry Weather Discharge Point No. 001 Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Chronic Toxicity ^[1]	Pass or Fail and Percent Effect	C-24	1/Quarter

Sample Type and Frequency:

- C-24 = 24-hour composite
 1/Quarter = once per quarter

Footnote:

- ^[1] Chronic toxicity test samples shall be collected coincident with routine composite effluent samples and analyzed in accordance with MRP section V.

V. CHRONIC TOXICITY MONITORING REQUIREMENTS

A. Methodology

1. The Discharger shall conduct static non-renewal chronic toxicity tests with the purple sea urchin (*Strongylocentrotus purpuratus*) or the sand dollar (*Dendraster excentricus*) with the embryo-larval development test method. Bioassays shall be conducted in compliance with the most recently promulgated test methods, 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, the Regional Water Board and U.S. EPA may grant exceptions in writing upon the Discharger's request with justification.
2. The in-stream waste concentration (IWC) shall depend on the amount of recycled water being produced. When the Westside Recycled Water Project produces less than 1.0 MGD of recycled water for distribution, the IWC shall be 0.67 percent effluent. When the Westside Recycled Water Project produces at least 1.0 MGD of recycled water for distribution, the IWC shall be 0.37 percent effluent. Recycled water production for this purpose shall be determined based on the volume of recycled water produced during the 24-hour composite sampling period for the chronic toxicity test.
3. If an effluent toxicity test does not meet all test acceptability criteria in the test methods manual, the Discharger shall resample and retest within 14 days.
4. Dilution and control water, including brine controls, shall be 1- μ m-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water are different from test organism culture water, the Discharger shall test a second control using culture water.
5. The Discharger shall conduct concurrent reference toxicant tests at least quarterly. The Discharger shall review and report all reference toxicant test results using the EC₂₅ and EC₅₀.

B. Compliance Determination

Samples collected during routine and accelerated monitoring shall be used to evaluate compliance. 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 the following:

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

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 calculated and reported as:

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

C. Accelerated Monitoring

If a chronic bioassay test indicates a violation of the chronic toxicity effluent limitation, the Discharger shall retest within five days of receiving test results, or within seven days if the sample is contracted out to a commercial laboratory. Accelerated monitoring shall consist of four toxicity tests conducted at approximately two-week intervals. The Discharger shall return to routine monitoring if all four monitoring test results are “Pass.”

If any accelerated monitoring test violates the chronic toxicity effluent limitation, the Discharger shall immediately initiate toxicity reduction evaluation (TRE) procedures in accordance with MRP section V.E. Accelerated monitoring is not required once the Discharger has initiated a TRE; however, the Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes during the TRE.

D. Reporting Requirements

For each chronic toxicity test, whether identified as valid or not, the Discharger shall report the following, at a minimum, in monthly self-monitoring reports:

1. Sample date;
2. Test initiation date;
3. Test species;
4. TST statistical results (i.e., “Pass” or “Fail,” and “percent effect” at the IWC);
5. Other biological and statistical endpoint values as appropriate (e.g., number of young, growth rate, NOEC, EC₂₅);
6. Summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, and ammonia);
7. Statistical program output results for each toxicity test, including tabular data and graphical plots;
8. Tabular data and graphical plots showing the laboratory’s performance for (1) the reference toxicant for the previous 20 tests; and (2) the control mean, control standard deviation, and control coefficient of variation for the previous 12 months; and
9. Status of any ongoing TRE work, including completed and planned investigative activities.

E. Toxicity Reduction Evaluation (TRE)

1. **Generic TRE Work Plan.** The Discharger shall prepare and submit an initial investigation TRE work plan within 90 days of the effective date of this Order. The Discharger shall prepare the work plan based on *Toxicity Reduction Evaluation Guidance for Municipal*

Wastewater Treatment Plants (EPA/833/B-99/002, 1999), or the most current version. The work plan shall describe the steps the Discharger intends to follow if toxicity is detected. At a minimum, the work plan shall include a description of the following:

- a. Investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
 - b. Methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and
 - c. Staff responsible for conducting TIEs (e.g., in-house expert, outside contractor).
2. **Specific TRE Work Plan.** If an accelerated monitoring test violates the chronic toxicity effluent limitation, the Discharger shall immediately initiate a TRE and submit a specific TRE work plan within 15 days. The specific work plan shall be the generic work plan revised as appropriate for this toxicity event. The Discharger shall implement the TRE in accordance with the work plan, incorporating any comments received from the Regional Water Board Executive Officer or U.S. EPA. The specific TRE work plan shall include the following:
- a. Actions to investigate, identify, and correct the causes of toxicity;
 - b. Actions to mitigate the effects of the discharge and prevent the recurrence of toxicity; and
 - c. Schedule for these actions, progress reports, and the final report.
3. **Toxicity Identification Evaluation (TIE).** The Discharger may initiate a TIE as part of a TRE to identify the cause of 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]).

F. Species Screening

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 Recycled Water 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 the Regional Water Board

Executive Officer and U.S. EPA 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, 1995) and test species specified in the table below:

Table E-10. 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>Strongylocentrotus 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

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 initiated in different calendar months 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 screening tests at 75, 20, 0.67, 0.37, and 0.17 percent effluent.

VI. RECEIVING WATER MONITORING REQUIREMENTS

A. Shoreline Monitoring

1. The Discharger shall monitor shoreline receiving waters at Monitoring Locations SRF-15 east, SRF-15, SRF-17, SRF-18, SRF-19, and SRF-21.1 as follows:

Table E-11. Ambient Shoreline Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Week
Fecal coliform	MPN/100 mL ^[2]	Grab	1/Week
Total coliform	MPN/100 mL ^[2]	Grab	1/Week

Abbreviation:

MPN/100 mL = most probable number per 100 milliliters

Sample Type and Frequency:

Grab = grab sample
 1/Week = once per week

Footnotes:

- ^[1] 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.
- ^[2] Results may be reported as Colony Forming Units (CFU)/100 mL if the laboratory method used provides results in CFU/100 mL.

2. Following any combined sewer discharge at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, or 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).

Table E-12. Post-CSD Event Shoreline Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Day ^[3]
Fecal coliform	MPN/100 mL ^[2]	Grab	1/Day ^[3]
Total coliform	MPN/100 mL ^[2]	Grab	1/Day ^[3]
Standard observations ^[4]	---	---	1/Day ^[3]

Abbreviation:

MPN/100 mL = most probable number per 100 milliliters

Sample Type and Frequency:

Grab = grab sample
 1/Day = once per day

Footnotes:

- ^[1] 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.
- ^[2] Results may be reported as Colony Forming Units (CFU)/100 mL if the laboratory method used provides results in CFU/100 mL.
- ^[3] Sampling is only required at the monitoring locations indicated below when there is a combined sewer discharge at the discharge points indicated below:

<u>Discharge Point</u>	<u>Monitoring Locations</u>
CSD-001	SRF-22
CSD-002	SRF-20, SRF-21, and SRF-21.1
CSD-003	SRF-18, SRF-19, and SRF-20
CSD-005	SRF-17
CSD-006	SRF-15 east, SRF-15, and SRF-16

CSD-007

SRF-15 east, SRF-15, and SRF-16

- ^[4] Standard observations are defined in Attachment G section III.B.3 and shall include any apparent fish kills. The estimated size of the affected area is not required.

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 Chemistry Sampling.** The Discharger shall collect benthic samples from the seven historical monitoring locations (Stations 1, 2, 4, 6, 25, 28, and 31) to maintain time series data, and a minimum of 23 out of the 37 other monitoring locations (Stations 32 through 80). 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 collected at two locations: one at Station 1, 2, 25, or 28, and one at a reference location outside the influence of the discharge. At each location, three composite samples shall be collected of one macroinvertebrate species. 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 pollutants (i.e., arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), DDT, PCBs, and PAHs.

- 5. Reporting.** All offshore monitoring data shall be reported to the Regional Water Board and U.S. EPA in an Annual Report submitted by August 30 of the year following sampling. The report shall include raw data tables and summaries for each monitoring component. In addition to the annual reporting requirements, a comprehensive cumulative summary report shall be submitted with the application for permit reissuance.

VII. PRETREATMENT AND BIOSOLIDS MONITORING REQUIREMENTS

The Discharger shall comply with the following pretreatment monitoring requirements for influent at Monitoring Location INF-001A, effluent at Monitoring Location EFF-001A, and biosolids at Monitoring Location BIO-001. The Discharger shall report summaries of analytical results in pretreatment reports in accordance with Attachment H. If instructed to do so, the Discharger shall report biosolids analytical results with its electronic self-monitoring reports by manual entry, by EDF/CDF, or as an attached file.

Table E-13. Pretreatment and Biosolids Monitoring

Constituents	Influent INF-001A	Effluent EFF-001A ^[1]	Biosolids BIO-001	Sample Type	
				Influent and Effluent	Biosolids ^[7a]
VOC ^[2]	2/Year	2/Year	2/Year	Grab	Grab
BNA ^[3]	2/Year	2/Year	2/Year	Grab	Grab
Metals and Other Elements ^[4]	1/Month	1/Month	2/Year	C-24 ^[7b]	Grab
Hexavalent Chromium ^[5]	1/Month	1/Month	2/Year	Grab	Grab
Mercury	1/Month	1/Month ^[6]	2/Year	Grab	Grab
Cyanide	1/Month	1/Month	---	Grab	---
Molybdenum	---	---	2/Year	---	Grab
Organic Nitrogen	---	---	2/Year	---	Grab
Ammonia Nitrogen	---	---	2/Year	---	Grab
Total Solids	---	---	2/Year	---	Grab

Sample Types and Frequencies:

- C-24 = 24-hour composite
- Grab = grab sample
- 1/Month = once per month
- 2/Year = twice per year

Footnotes:

- ^[1] Effluent monitoring conducted in accordance with Table E-4 may be used to satisfy these pretreatment monitoring requirements.
- ^[2] VOC: volatile organic compounds.
- ^[3] BNA: base/neutrals and acid extractable organic compounds.
- ^[4] The metals and other elements are arsenic, cadmium, copper, lead, nickel, selenium, silver, and zinc.
- ^[5] The Discharger may elect to monitor total chromium instead of hexavalent chromium and may elect to collect 24-hour composite samples instead of grab samples for total chromium.
- ^[6] 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, except when concentrations are expected to exceed 10 µg/L, in which case use of ultra-clean sampling and analysis methods is optional.
- ^[7] Sample types:
 - a. The biosolids sample shall be a composite of the biosolids to be disposed. Biosolids sample collection and monitoring shall comply with the requirements in Attachment H, Appendix H-4. The Discharger shall also comply with the biosolids monitoring requirements in 40 C.F.R. part 503.

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

VIII. RECYCLED WATER MONITORING REQUIREMENTS

A. Influent Monitoring

The Discharger shall monitor the monthly volume of influent to the Oceanside Water Pollution Control Plant.

B. Production Monitoring

The Discharger shall monitor the monthly volumes of effluent from the Oceanside Water Pollution Control Plant and Westside Recycled Water Project for each level of treatment.

C. Discharge Monitoring

The Discharger shall monitor the monthly volumes of effluent from the Oceanside Water Pollution Control Plant and Westside Recycled Water Project discharged to each of the following, for each level of treatment:

1. Inland surface waters, specifying volume required to maintain minimum instream flow;
2. Enclosed bays, estuaries and coastal lagoons, and ocean waters;
3. Natural systems, such as wetlands, wildlife habitats, and duck clubs, where augmentation or restoration has occurred, and that are not part of a wastewater treatment plant or water recycling treatment plant;
4. Underground injection wells, such as those classified by U.S. EPA's Underground Injection Control Program, excluding groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface; and
5. Land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

D. Reuse Monitoring

The Discharger shall monitor the following:

1. Monthly volume of recycled water distributed; and
2. Annual volumes of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22, in each of the use categories listed below:
 - a. Agricultural irrigation: pasture or crop irrigation;

- b.** Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping;
- c.** Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses;
- d.** Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered;
- e.** Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered;
- f.** Geothermal energy production: augmentation of geothermal fields;
- g.** Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments;
- h.** Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use;
- i.** Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface;
- j.** Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Health and Safety Code section 116275, or into a constructed system conveying water to such a reservoir (Wat. Code § 13561);
- k.** Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that delivers raw water to a drinking water treatment plant that provides water to a public water system as defined in Health and Safety Code section 116275 (Wat. Code § 13561); and
- l.** Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

IX. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachments D, G, and H) related to monitoring, reporting, and recordkeeping.

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 website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs). The CIWQS website will provide additional information for SMR submittal in the event of a service interruption for electronic submittal.

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 of this Order.

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-14. 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 ^[1]	Discharger may use this method for all results or keep records
Antimony Silver Arsenic Thallium Beryllium Zinc Cadmium Chromium	Required for all results ^[2]	

Parameter	Method of Reporting	
	EDF/CDF data upload or manual entry	Attached File
Copper Cyanide Lead Mercury Nickel Selenium	Dioxins & Furans (by U.S. EPA Method 1613) Other Pollutants (by U.S. EPA Methods 601, 602, 608, 610, 614, 624, and 625)	
Volume and Duration of Blended Discharge ^[3]	Required for all blended effluent discharges	
Analytical Method	Not required (Discharger may select "data unavailable") ^[1]	
Collection Time Analysis Time	Not required (Discharger may select "0:00") ^[1]	

Footnotes:

- ^[1] 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.
- ^[2] 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).
- ^[3] 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-15. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Order effective date	All times
1/Day	Order effective date	Every 24-hour period, beginning at midnight and continuing through 11:59 p.m. (or any 24-hour period that reasonably represents a calendar day for purposes of sampling)
1/Week 5/Week	First Sunday following or on Order effective date	Sunday through Saturday
1/Month	First day of calendar month following or on Order effective date	First day of calendar month through last day of calendar month

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
1/Quarter	Closest of January 1, April 1, July 1, or October 1 following or on Order effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
1/Year 3/Year	Closest January 1 following or on Order effective date	January 1 through December 31
2/Year	Closest January 1 or July 1 following or on Order effective date	January 1 through June 30 July 1 through December 31
1/Event	As soon as possible after combined sewer discharge event begins	Duration of the combined sewer discharge event

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 RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported.

For purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. 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 shall be determined using sample reporting protocols defined above and in the Fact Sheet and Attachments A, D, and G. For purposes of reporting and administrative enforcement by the Regional Water Board, State Water Board, or U.S. EPA, 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 RL.

C. Discharge Monitoring Reports (DMRs)

DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using the Electronic Self-Monitoring Reports module eSMR 2.5 or the latest upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

D. Annual Recycled Water Reports

The Discharger shall electronically submit annual reports to the State Water Board by April 30 each year covering the previous calendar year using the State Water Board's GeoTracker website (<http://geotracker.waterboards.ca.gov>) under a site-specific global identification number. For the 2019 calendar year, the Discharger shall submit a report by April 30, 2020, covering January through December 2019. The annual report shall include the elements specified in Attachment E section VIII.

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. As described in section II.B of this Order, the Regional Water Board and U.S. EPA incorporate 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

WDID	2 386009001
CIWQS Place ID	256498
Discharger	City and County of San Francisco
Name of Facility	Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project
Facility Address	3500 Great Highway San Francisco, CA 94132 San Francisco County
Facility Contact, Title and Phone	Dale Miller, Operations Superintendent, Wastewater Enterprise, (415) 242-2225
Authorized Person to Sign and Submit Reports	Greg Norby, Assistant General Manager, Wastewater Enterprise, (415) 554-2465
Mailing Address	San Francisco Public Utilities Commission/Wastewater Enterprise 525 Golden Gate Ave., 13th Floor, San Francisco, CA 94102
Billing Address	Same
Type of Facility	Publicly-Owned Treatment Works (POTW) and Combined Sewer System
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Yes
Reclamation Requirements	State Water Board Order WQ 2016-0068-DDW
Facility Permitted Flow	43 million gallons per day (MGD), maximum dry weather flow
Facility Design Flow	<u>Oceanside Water Pollution Control Plant</u> 43 MGD maximum dry weather design flow (secondary treatment) 65 MGD maximum wet weather design flow (secondary treatment for 43 MGD and primary treatment for an additional 22 MGD) <u>Westside Recycled Water Project</u> 4 MGD maximum design flow (1.6 MGD annual average)
Watershed	San Mateo Coastal Basin
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

- A. The City and County of San Francisco (Discharger) owns and operates the Oceanside Water Pollution Control Plant and its wastewater collection system. The Discharger plans to construct, own, and operate the Westside Recycled Water Project during this Order’s term. Collectively, the Oceanside Water Pollution Control Plant, wastewater collection system, and Westside

Recycled Water Project are referred to as the Facility. The Facility discharges 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). The Discharger filed a Report of Waste Discharge and submitted an application for reissuance of its waste discharge requirements (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).

The Discharger is authorized to discharge subject to the WDRs and NPDES permit requirements in this Order at the discharge locations described in Table 2 of this Order. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. Pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all requirements for continuation of expired permits. (See 40 C.F.R § 122.6[d].)

II. FACILITY DESCRIPTION

A. Wastewater and Biosolids Treatment

- 1. Location and Service Area.** The Oceanside Water Pollution Control Plant is located at 3500 Great Highway, San Francisco. The plant provides wastewater treatment for western San Francisco and a small portion of Daly City owned and operated by the North San Mateo County Sanitation District. The service area population is approximately 250,000. The Discharger is constructing a recycled water project at the plant site during this Order’s term. The wastewater collection system is located throughout the western side of San Francisco. Attachment B shows maps of the Facility area.
- 2. Collection System.** The Discharger’s collection system is predominantly a combined sewer system with some limited separate sanitary sewers. The combined sewer system consists of approximately 250 miles of pipe, one major pump station (Westside Pump Station), six minor pump stations (four all-weather pump stations: Westside, Sea Cliff No. 1, Sea Cliff No. 2, and Pine Lake; and two wet weather pump stations: Sea Cliff No. 3 and Zoo Wet Weather Lift Station), and three large transport/storage structures (Westside Transport/Storage Structure, a 49.3-million-gallon box-like structure located beneath the Great Highway; Richmond Tunnel, a 12.0-million-gallon tunnel located to the north; and Lake Merced Tunnel, a 10.0-million-gallon tunnel located to the south). The separate sanitary sewer systems serve isolated areas and are also regulated under State Water Board

Order No. 2006-0003-DWQ as amended by State Water Board Order No. WQ 2013-0058-EXEC.

3. Wastewater Treatment

- a. **Oceanside Water Pollution Control 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 oxygen process, and secondary clarification. The effluent is not disinfected. The plant has a maximum secondary treatment design capacity of about 43 million gallons per day (MGD). During wet weather, the plant can provide primary treatment for about 22 MGD more, which is combined with the secondary-treated effluent prior to discharge for a total treatment capacity of 65 MGD. Plant effluent flows to Discharge Point No. 001 by gravity.
- b. **Combined Sewer System.** The combined storage capacity of the three transport/storage structures is about 71 million gallons. Collection system piping provides about 2 million gallons of additional storage. The transport/storage structures provide flow equalization and convey combined sewer system flows up to 65 MGD to the plant by way of the Westside Pump Station.

Flows above the plant's 65-MGD treatment capacity receive equivalent-to-primary treatment through solids settling, skimming of floatable solids, and in some cases screening within the combined sewer system. In addition to pumping up to 65 MGD to the plant, the Westside Pump Station can also pump flow from the Westside Transport/Storage Structure to Discharge Point No. 001 during wet weather (identified in the previous order as "decant"). The design capacity of the Westside Pump Station wet weather pumps ranges from 98 to 133 MGD depending on the number and model of pumps operating when there are high water levels in the West Box of the Westside Transport/Storage Structure (typically observed during wet weather operations). Flows that exceed the capacities of the Oceanside Water Pollution Control Plant and combined sewer system may discharge from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. Four of these discharge points are directly connected to transport/storage structures (Discharge Point Nos. CSD-001, CSD-002, CSD-003, and CSD-004), and three are associated with pump station sumps (Discharge Point Nos. CSD-005, CSD-006, and CSD-007). After wet weather events, stored combined sewer system flows and accumulated solids remaining in the transport/storage structures are conveyed to the plant for treatment.

4. **Sludge and Biosolids Management.** The Discharger uses temperature-phased anaerobic digestion, which is capable of producing Class A biosolids. 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. The digestion system accepts hauled-in batches of primary and secondary sludge from the Treasure Island Wastewater Treatment Plant. Digested biosolids are dewatered using screw presses and stored in hoppers prior to being loaded into covered trucks for transport. During the wet season, the majority of biosolids are hauled to a landfill for storage and eventual use as interim cover, final cover, or landfill

building material; a small percentage is reused for agricultural land application. During the dry season, biosolids are hauled offsite for agricultural land application.

- 5. Water Recycling and Reclamation.** The Discharger is constructing a recycled water project at the Oceanside Water Pollution Control Plant site during this Order's term. Secondary-treated effluent will be treated further with membrane filtration, reverse osmosis, and ultraviolet (UV) light disinfection to produce recycled water. The concentrate from the reverse osmosis process will be commingled with plant effluent prior to discharge at Discharge Point No. 001. Filter backwash water generated at the Westside Recycled Water Project will be directed to the plant headworks for treatment. The project is expected to produce and deliver an annual average flow of 1.6 MGD of recycled water for distribution in the western portion of San Francisco, with peak deliveries of up to 4 MGD during summer. Water recycling operations will not increase the mass of pollutants discharged at Discharge Point No. 001, but will increase the concentration of pollutants discharged. The requirements of this Order account for the discharge from this water recycling project. Reclamation requires waste discharge requirements beyond those specified here, such as those in State Water Board Order No. WQ 2016-0068-DDW (Water Reclamation Requirements for Recycled Water Use).

B. Discharge Points and Receiving Waters

- 1. Discharge Point No. 001.** During dry weather, secondary-treated effluent is discharged at Discharge Point No. 001. During wet weather, the discharge at Discharge Point No. 001 comprises primary-treated and secondary-treated effluent from the Oceanside Water Pollution Control Plant and equivalent-to-primary-treated effluent from the Westside Transport/Storage Structure. When the Westside Recycled Water Project becomes operational, reverse osmosis concentrate will also be discharged at Discharge Point No. 001.

Discharge Point No. 001 is a 4.5-mile-long (3.9 nautical mile-long) deepwater outfall that terminates with 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. Discharge Point No. 001 discharges to the Pacific Ocean beyond the territorial waters of the State, which end three nautical miles from MLLW at shore.

- 2. Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007.** During wet weather, equivalent-to-primary-treated wastewater is discharged to the Pacific Ocean at Discharge Point Nos. CSD-001, CSD-002, CSD-003, and CSD-004 when the Westside Pump Station capacity is exceeded, and at Discharge Point Nos. CSD-005, CSD-006, and CSD-007 when the capacities of the corresponding pump stations (i.e., Sea Cliff No. 1 and Sea Cliff No. 2 Pump Stations) are exceeded, including the capacity of the wet well connected to Discharge Point No. CSD-006. These discharge points are located within the territorial waters of the State.

C. Summary of Previous Requirements and Self-Monitoring Data

1. Dry Weather. Dry weather effluent limitations and representative monitoring data from the previous order term are presented below for discharges from the Oceanside Water Pollution Control Plant at Discharge Point No. 001:

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

Parameter	Units	Effluent Limitations				Monitoring Data (1/2011 – 12/2017)				
		6-Month Median	Monthly Average	Weekly Average	Daily Max.	Median	Highest 6-Month Median	Highest Monthly Average	Highest Weekly Average	Highest Daily Max.
Biochemical Oxygen Demand, 5-day @ 20°C (BOD ₅)	mg/L	---	30	45	---	15	---	29	51 ^[1]	---
Total Suspended Solids (TSS)	mg/L	---	30	45	---	10	---	18	26	---
BOD ₅ percent removal	%	---	85 (min.)	---	---	95	---	87 ^[2]	---	---
TSS percent removal	%	---	85 (min.)	---	---	96	---	92 ^[2]	---	---
pH	s.u.	Within a range of 6.0 – 9.0				Within a range of 6.0 – 8.3				
Chronic Toxicity	TU _c	---	---	---	150	50	---	---	---	149
Mercury	µg/L	5.9	---	---	24	0.0068	0.0093	---	---	0.071

Abbreviations:

- Max. = maximum
- min. = minimum
- mg/L = milligrams per liter
- µg/L = micrograms per liter
- s.u. = standard units
- TU_c = chronic toxicity units

Footnotes:

- ^[1] The Discharger exceeded the weekly average effluent limitation three times during the previous order term, in October 2013, July 2014, and June 2017. The Discharger attributes these exceedances to the presence of nitrifying bacteria since carbonaceous biochemical oxygen demand (CBOD₅) concentrations were within the expected range. This Order allows CBOD₅ effluent limitations to be substituted for BOD₅ effluent limitations to address this concern, as described in Fact Sheet section IV.B.2, below.
- ^[2] Lowest monthly average.

2. Wet Weather. Wet weather requirements from the previous order term included implementation of the nine minimum controls and the long-term control plan. The combined sewer system was designed to achieve a long-term average of eight combined sewer discharges per year. The following two tables summarize combined sewer discharges over a 20-year period and average combined sewer discharge durations for wet season 2012-2013.

Table F-3. Combined Sewer Discharge Frequency

Year (July 1 – June 30)	Rain (inches)	Number of Combined Sewer Discharges ^[1]						
		Lake Merced CSD-001	Vicente CSD-002	Lincoln CSD-003	Mile Rock CSD-004	Sea Cliff No. 1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff No. 2 CSD-007
1997-1998	41.1	10	13	13	^[2]	2	^[3]	10

Year (July 1 – June 30)	Rain (inches)	Number of Combined Sewer Discharges ^[1]						
		Lake Merced CSD-001	Vicente CSD-002	Lincoln CSD-003	Mile Rock CSD-004	Sea Cliff No. 1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff No. 2 CSD-007
1998-1999	18.9	6	7	7	[2]	0	[3]	0
1999-2000	23.2	5	6	6	[2]	1	[3]	1
2000-2001	13.8	2	0	0	[2]	2	[3]	2
2001-2002	24.4	6	6	6	[2]	1	[3]	1
2002-2003	22.3	5	6	6	[2]	1	[3]	7
2003-2004	18.8	4	4	4	[2]	2	[3]	8
2004-2005	26.2	7	7	6	[2]	5	[3]	8
2005-2006	31.8	11	9	9	[2]	3	[3]	9
2006-2007	14.8	2	1	1	[2]	0	[3]	2
2007-2008	18.4	4	4	4	[2]	0	[3]	1
2008-2009	18.3	4	4	4	[2]	0	[3]	1
2009-2010	25.8	4	3	3	[2]	6	[3]	7
2010-2011	30.1	5	4	4	[2]	0	0	3
2011-2012	17.0	3	3	2	[2]	2	0	3
2012-2013	19.7	6	6	6	[2]	3	1	3
2013-2014	12.0	3	2	2	[2]	0	1	3
2014-2015	17.7	6	6	6	[2]	3	0	4
2015-2016	18.6	9	8	6	[2]	1	0	4
2016-2017	32.4	13	13	13	[2]	1	0	14
2017-2018	18.0	3	3	3	[2]	0	0	5
Average	22.1	5.6	5.5	5.3	[2]	1.5	0.3	4.6

Footnotes:

- [1] This table reflects rain and discharge frequencies reported in monthly self-monitoring reports.
- [2] The previous order did not require monitoring at Discharge Point No. CSD-004.
- [3] The Discharger did not monitor combined sewer discharge frequency at Discharge Point No. CSD-006 until it installed telemetry in 2010.

Table F-4. Combined Sewer Discharge Duration (July 1, 2012, through June 30, 2013)

	Lake Merced CSD-001	Vicente CSD-002	Lincoln CSD-003	Mile Rock CSD-004	Sea Cliff No. 1 CSD-005	Sea Cliff Sewer CSD-006	Sea Cliff No. 2 CSD-007
Days with Rainfall	53	53	53	[1]	53	53	53
Discharge Events	6	6	6 [2]	[1]	3	1	3
Average Duration (hours)	2.39	3.28	3 [2]	[1]	0.08	0.58	0.28
Average Volume/Event (million gallons)	2.75	3.16	[2]	[1]	0.002	0.08	0.01

Footnotes:

- [1] The previous order did not require monitoring at Discharge Point No. CSD-004.
- [2] 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, lasting an average duration of about 3 hours.

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) for discharges to waters of the State. 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 serves as an NPDES permit for point source discharges from the 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). On September 3, 2015, the San Francisco Planning Commission certified the Final Environmental Impact Report for the Westside Recycled Water Project, finding that the Discharger, acting through the San Francisco Planning Department, fulfilled all California Environmental Quality Act procedural requirements.

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

1. Water Quality Control Plan. The Regional Water Board adopted the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the San Francisco Bay Region. Requirements of this Order implement the Basin Plan. The table below lists the beneficial uses the Basin Plan attributes to the Pacific Ocean:

Table F-5. Basin Plan Beneficial Uses

Receiving Water	Beneficial Uses
Pacific Ocean	<ul style="list-style-type: none"> • Industrial Service Supply (IND) • Commercial and Sport Fishing (COMM) • Shellfish Harvesting (SHELL) • Marine Habitat (MAR) • Fish Migration (MIGR) • Preservation of Rare and Endangered Species (RARE) • Fish Spawning (SPWN) • Wildlife Habitat (WILD) • Water Contact Recreation (REC1) • Noncontact Water Recreation (REC2) • Navigation (NAV)

Basin Plan Table 4-1, Discharge Prohibition 1, prohibits wastewater discharges with particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1. 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.

The Basin Plan further states:

Significant factors to be considered by the Regional Water Board in reviewing requests for exceptions will be the reliability of the discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water and the environmental consequence of such discharges.

During wet weather, this Order grants an exception to Basin Plan Discharge Prohibition 1 for discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 for the following reasons:

- Eliminating all wet weather combined sewer discharges or ensuring that these discharges receive a minimum initial dilution of 10:1 would be an inordinate burden disproportionate to the beneficial uses protected. The Discharger continues to invest in infrastructure to improve the combined sewer system (San Francisco Public Utilities Commission Wastewater Enterprise, *Report of Waste Discharge, Supplemental Information, Capital Improvements and Operational Changes*, April 3, 2014). This Order continues to require capture and treatment of all combined wastewater and stormwater. This Order also requires the Discharger to evaluate control alternatives to eliminate, relocate, or reduce the magnitude or frequency of combined sewer discharges.
 - An equivalent level of environmental protection is provided because operating a combined sewer system, as opposed to a separate sewer system, removes many pollutants in urban runoff that elsewhere in the Region are discharged through stormwater outfalls with little or no treatment. This additional treatment comes at the cost of occasionally discharging partially-treated combined sewage and stormwater through Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. The Monitoring and Reporting Program (MRP) (Attachment E) requires the Discharger to monitor combined sewer discharges and receiving waters to verify that an equivalent level of environmental protection is provided.
- 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, including in 1978 and most recently in 2018. The most recent changes became effective February 4, 2019. The Ocean Plan establishes water quality objectives and a program of implementation to protect beneficial uses of the Pacific Ocean within the territorial waters of the State.

The territorial waters of the State end 3 nautical miles from shore. Discharge Point No. 001 is approximately 3.8 miles (3.3 nautical miles) offshore in federal waters. 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.” This Order contains discharge prohibitions, effluent limitations, receiving water limitations, and other provisions to ensure that discharges from Discharge Point No. 001 do not affect State waters. This Order’s requirements related to Discharge Point No. 001 are based on U.S. EPA’s federal authorities pursuant to the Clean Water Act.

a. **Beneficial Uses.** The table below lists the beneficial uses the Ocean Plan assigns to the Pacific Ocean:

Table F-6. Ocean Plan Beneficial Uses

Receiving Water	Beneficial Uses
Pacific Ocean	<ul style="list-style-type: none"> • Industrial Water Supply • Water Contact and 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 Migration • Fish Spawning • Shellfish Harvesting

b. **State Water Board Order No. WQ 79-16.** During wet weather, State Water Board Order No. WQ 79-16 sets forth requirements for discharges from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. Ocean Plan chapter III.J allows the State Water Board to grant exceptions to Ocean Plan requirements on a case-by-case basis if the public interest is served and the exception does not compromise beneficial uses (exceptions are listed in Ocean Plan Table VII-1). In 1979, the State Water Board granted the Discharger an exception from Ocean Plan requirements and imposed conditions, including but not limited to the following:

- Except for the bacteriological standards, to the greatest extent practical, the Discharger is to design, construct, and operate facilities to conform to the remaining standards set forth in chapter II of the 1978 Ocean Plan. These standards relate to physical characteristics (i.e., floating particulates, discoloration, natural light, and inert solids deposition), chemical characteristics (i.e., dissolved oxygen, pH, dissolved sulfide, toxic and organic chemicals in marine sediments, and nutrients), biological characteristics (i.e., marine communities and taste, odor, and color of marine resources used for human consumption), and radioactivity. Provisions V and VI.C.5 of this Order, and Attachments D and G sections I.C and I.D, require the Discharger to design, construct, and operate its facilities to conform to these standards to the greatest extent practical.

- To the greatest extent practical, the Discharger is to design, construct, and operate facilities to comply with the conditions controlled by the requirements set forth in chapter III, sections A and B, of the 1978 Ocean Plan. These requirements call for waste management systems to be designed and operated in a manner that will maintain indigenous marine life and a healthy and diverse marine community. They also call for waste discharges to be essentially free of floatable and settleable material, substances toxic to marine life due to increases in concentrations in water or sediments, substances that significantly decrease natural light, and materials that result in esthetically undesirable discoloration of the ocean surface. Provisions V and VI.C.5 of this Order and Attachments D and G sections I.C and I.D require the Discharger to design, construct, and operate its facilities to conform to these requirements to the greatest extent practical.
- The Discharger is to design and construct facilities to contain all stormwater runoff beyond that associated with an average of eight combined sewer discharges per year. Section III and Provision VI.C.5.c of this Order implement this condition.
- Beaches affected by combined sewer discharges are to be posted with warning signs beginning when the discharge commences until analysis indicates that water quality meets Ocean Plan bacteriological standards for recreation. Provision VI.C.5.a.viii of this Order implements this condition.
- Shellfish areas harvested for human consumption that may be affected by combined sewer discharges are to be posted with warning signs beginning when the discharge commences until the City and County Health Department indicates that no further posting is required. Provision VI.C.5.a.viii of this Order implements this condition.
- The Discharger is to comply with federal and State source control programs to minimize the entry of toxic substances into the waste collection system from industrial sources. Provisions VI.C.4.b and VI.C.5.a.iii of this Order and Attachment H implement this condition.
- The Discharger is to implement a self-monitoring program in accordance with Regional Water Board specifications. Provision VI.B of this Order and Attachment E implement this condition.

State Water Board Order No. WQ 79-16 explains the rationale for this exception and its conditions. It also states that the Regional Water Board or U.S. EPA may require construction of additional facilities or modification of existing Facility operations if it finds (1) changes in the location, intensity, or importance of affected beneficial uses, or (2) demonstrated unacceptable adverse impacts result from Facility operations as currently constructed.

- 3. Combined Sewer Overflow (CSO) Control Policy.** On April 11, 1994, U.S. EPA adopted the *Combined Sewer Overflow (CSO) Control Policy* to establish a national approach for controlling combined sewer discharges and overflows (59 Fed. Reg. 18688-18698, April 19, 1994). The Wet Weather Water Quality Act of 2000 amended the CWA to require that

permits issued after December 21, 2000, for discharges from combined sewer systems conform to the *Combined Sewer Overflow (CSO) Control Policy* (33 U.S.C. § 1342[q][1]). Requirements of this Order implement the *Combined Sewer Overflow (CSO) Control Policy*, including the implementation of the nine minimum controls, a Long-Term Control Plan, and a post-construction monitoring program. (See Fact Sheet § VI.C.5.)

- 4. Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 require that state water quality standards include an antidegradation policy consistent with stated requirements. The State Water Board established California’s antidegradation policy through State Water Board Resolution No. 68-16, “*Statement of Policy with Respect to Maintaining High Quality of Waters in California*,” which meets the federal antidegradation policy requirements. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, the antidegradation policy. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and Resolution No. 68-16. (See Fact Sheet § IV.D.2.)
- 5. 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. (See Fact Sheet § IV.D.1.)
- 6. 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 California Endangered Species Act (Fish and Game Code §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other provisions to protect beneficial uses, including protecting rare and endangered species. The Discharger is responsible for meeting all Endangered Species Act requirements.

U.S. EPA’s reissuance of this NPDES permit is subject to certain requirements of the federal Endangered Species Act of 1973 and the Magnuson-Stevens Fishery Conservation and Management Act. In October 2017, U.S. EPA requested updated information from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (collectively, the Services) related to (1) essential fish habitat and managed and associated species, and (2) threatened and endangered species and their designated critical habitats near Discharge Point No. 001. U.S. EPA made a “may affect, not likely to adversely affect” determination for the southern California steelhead, Central California Coho salmon, Central Valley, spring-run chinook salmon, Sacramento River winter-run chinook salmon, humpback whale, leatherback turtle, green sea turtle, loggerhead turtle, white abalone, and olive ridley sea turtle; and a “no effect” determination for the remaining listed species under the Services’ jurisdictions (*U.S. EPA Biological Evaluation*, September 2018). U.S. EPA provided a revised biological evaluation to the Services in April 2019. U.S. EPA may decide that changes to this Order are warranted based on the results of the completed consultation, and may modify or reopen it prior to the expiration date as described in Provision VI.C.1 of this Order.

7. **Sludge and Biosolids.** U.S. EPA administers 40 C.F.R. part 503, “Standards for the Use or Disposal of Sewage Sludge,” which regulates the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a municipal wastewater treatment facility. This Order does not authorize any act that violates those requirements. The Discharger is responsible for meeting all applicable requirements of 40 C.F.R. part 503.
8. **Ocean Discharge Criteria Evaluation.** CWA section 403(c) and implementing regulations at 40 C.F.R. part 125, subpart M, establish ocean discharge criteria for preventing unreasonable degradation of the marine environment of the territorial seas, contiguous zones, and oceans. The regulations at 40 C.F.R. section 125.122(b) allow a permitting authority to presume that a discharge will not cause unreasonable degradation for specific pollutants or conditions if the discharge complies with state water quality standards. This Order implements State water quality standards for discharges from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. This Order also implements State water quality standards for discharges from Discharge Point No. 001, with the modifications described below.

This Order’s requirements for Discharge Point No. 001 are consistent with the Ocean Plan, except with respect to chronic toxicity and TCDD equivalents. In all other respects, therefore, U.S. EPA presumes that the discharge will not cause unreasonable degradation. With respect to chronic toxicity and TCDD equivalents, U.S. EPA is required to consider the site-specific factors listed in 40 C.F.R. section 125.122(a). U.S. EPA prepared an evaluation under CWA section 403(c) for chronic toxicity and TCDD equivalents and concluded that no unreasonable degradation of ocean waters will occur.

9. **Coastal Zone Management Act.** 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.).

D. Impaired Waters on CWA 303(d) List

On April 6, 2018, U.S. EPA approved a revised list of California’s 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 nonpoint sources, and are established to achieve the water quality standards for the impaired waters. This Order does not authorize any discharge to receiving waters on California’s list of impaired waters.

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 the 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 the receiving water.

A. Discharge Prohibitions

1. **Prohibition III.A (Discharge different than described).** 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.
2. **Prohibition III.B (Bypass of untreated or partially-treated wastewater).** This prohibition is based on the *Combined Sewer Overflow (CSO) Control Policy* and 40 C.F.R. section 122.41(m) (see Attachment D section I.G). Pursuant to 40 C.F.R. section 122.41(m)(4)(ii), the Regional Water Board and U.S. EPA approve bypass of the biological treatment units (i.e., blending primary-treated effluent with biologically-treated effluent) during wet weather, when treatment plant influent flow exceeds 43 MGD (the hydraulic capacity of the biological treatment units), because such bypass meets the criteria for approval set forth in 40 C.F.R. sections 122.41(m)(4)(i)(A)-(C):
 - When influent flow exceeds 43 MGD, bypass of biological treatment is unavoidable to prevent loss of life, personal injury, or severe property damage. Such bypass prevents the washout of solids and the microbial population from the biological treatment system and thus ensures treatment reliability. Moreover, such bypass prevents backups and flooding in the community that could cause personal injury or severe property damage.
 - There are no feasible alternatives to bypass when influent flow exceeds 43 MGD. Provisions VI.C.5.c and VI.C.5.d require the Discharger to implement all feasible measures to maximize treatment. As long as the Discharger complies with these provisions, it is implementing all feasible alternatives to avoid bypass during wet weather.
 - The Discharger provided notice at least ten days before any wet weather bypass in its *Report of Waste Discharge, Oceanside Water Pollution Control Plant and Westside Wet Weather Facilities* (April 3, 2014) and *Wastewater Enterprise Westside Operations Summary Baseline Report* (March 2014).
3. **Prohibition III.C (Discharge at Discharge Point No. 001 without minimum initial dilution of at least 148:1).** This prohibition is necessary to ensure that the assumptions used to derive the dilution credits established through this Order for Discharge Point No. 001 remain substantially the same so the effluent limitations at Discharge Point No. 001 remain protective of water quality. This Order considered a dilution credit of 148:1, as modeled assuming no currents, based on the Discharger's *Southwest Ocean Outfall Dilution Modeling Report, Final Report* (April 2014) to conduct the reasonable potential analysis described in Fact Sheet section IV.C.4. Moreover, the in-stream waste concentration (IWC) to be used to evaluate compliance with this Order's chronic toxicity effluent limitation is based on this dilution credit. When the Discharger produces 1.0 MGD of recycled water and discharges

reverse osmosis concentrate, the IWC for chronic toxicity testing reflects a dilution credit of 266:1, as modeled assuming currents. Both dilution credits correspond to the same outfall configuration, which this prohibition seeks to maintain.

4. **Prohibition III.D (Discharge from location other than Discharge Point No. 001, except during wet weather).** This prohibition clarifies that any discharges other than those to Discharge Point No. 001 are unauthorized, except those to Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 as explicitly authorized during wet weather in accordance with the *Combined Sewer Overflow (CSO) Control Policy*.
5. **Prohibition III.E (Discharge in excess of permitted flow).** This Order prohibits an average dry weather effluent flow greater than 43 MGD based on the plant’s secondary treatment design capacity. Exceeding the secondary treatment design capacity could result in lowering the reliability of achieving this Order’s treatment requirements.

B. Technology-Based Effluent Limitations

1. **Scope and Authority.** CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements, at a minimum, and any more stringent effluent limitations necessary to meet water quality standards.
2. **Oceanside Water Pollution Control Plant.** During dry weather, the technology-based requirements for the Oceanside Water Pollution Control Plant are based on the Secondary Treatment Standards at 40 C.F.R. section 133.102, listed in the following table:

Table F-7. Secondary Treatment Requirements

Parameter	Monthly Average	Weekly Average
BOD ₅ ^[1,2]	30 mg/L	45 mg/L
CBOD ₅ ^[1,2]	25 mg/L	40 mg/L
TSS ^[2]	30 mg/L	45 mg/L
pH	6.0 – 9.0 standard units	

Abbreviation:

mg/L = milligrams per liter

Footnotes:

- [1] CBOD₅ effluent limitations may be substituted for BOD₅ effluent limitations.
- [2] The monthly average percent removal, by concentration, is not to be less than 85 percent.

This Order does not include the additional technology-based effluent limitations established in Ocean Plan chapter III.B.1 (i.e., oil and grease, turbidity, settleable solids) because the plant provides secondary treatment.

During wet weather, the *Combined Sewer Overflow (CSO) Control Policy* establishes the minimum technology-based requirements for combined sewer systems as the implementation of the nine minimum controls based on 40 C.F.R. section 125.3. Provision VI.C.5.a of this Order contains these requirements.

3. Westside Recycled Water Project. 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. This Order requires Westside Recycled Water Project discharges to meet the minimum technology-based effluent limitations established in Ocean Plan Table 2, listed in the following table:

Table F-8. Ocean Plan Table 2 Effluent Limitations

Parameter	Units	Monthly Average	Weekly Average	Instantaneous
Oil and Grease	mg/L	25	40	75
TSS	mg/L	60 ^[1]	---	---
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	within 6.0 to 9.0 range (all times)		

Abbreviations:

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

Footnote:

^[1] Ocean Plan Table 2 notes state, “Suspended Solids: Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.” Because the monthly average effluent limitation for suspended solids has been established as 60 mg/L, the Discharger is not required to remove 75% of influent suspended solids.

4. Combined Sewer System. The Westside Transport/Storage Structure and combined sewer discharge points discharge only during wet weather. As such, the *Combined Sewer Overflow (CSO) Control Policy* establishes the minimum technology-based requirements for combined sewer systems as the implementation of nine minimum controls based on 40 C.F.R. section 125.3. Provision VI.C.5.a of this Order contains these requirements.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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, which may be derived using a proposed state criterion or policy interpreting a state narrative water quality criterion, supplemented with other relevant information (40 C.F.R. § 122.44[d][1][vi]). The process for determining reasonable potential and calculating WQBELs is intended to achieve applicable water quality objectives and criteria, protect the

designated uses of receiving waters as specified in the Basin Plan and Ocean Plan, and ensure no unreasonable degradation under CWA section 403(c) and 40 C.F.R. part 125, subpart M.

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 (CSO) Control Policy*, this Order requires the Discharger to implement and update its Long-Term Control Plan. The *Combined Sewer Overflow (CSO) Control Policy* describes the presumption and demonstration approaches regarding water quality-based requirements and requires that a post-construction water quality monitoring program be in place to verify compliance with applicable water quality standards. This Order requires the combined sewer system to capture 100 percent of combined wastewater and stormwater and provide equivalent-to-primary treatment consisting of floatables and settleable solids removal. Provision VI.C.5.d (Task 3.b) of the Order requires the Discharger to assess the feasibility and necessity of disinfecting combined sewer discharges.

2. Beneficial Uses and Water Quality Objectives

Fact Sheet sections III.C.1 and III.C.2, above, identify the beneficial uses of the Pacific Ocean. Ocean Plan chapter II (including Table 1) lists water quality objectives for the Pacific Ocean.

3. Minimum Initial Dilution

In accordance with Ocean Plan chapter III.C, 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 estimated dilution based on NRFIELD and UM3 models and ambient water data measured from April 2012 through October 2013. Based on the more conservative estimate assuming no currents, the minimum initial dilution ratio is 148:1 (148 parts seawater per 1 part wastewater). This represents the minimum 30-day average dilution during the period of maximum stratification, observed from November 2012 through January 2013. The Discharger's dilution study also estimated dilution based on existing current velocity data measured at mid-depth of the water column. Accounting for ocean currents, the more conservative estimate of the minimum 30-day average dilution during the period of maximum stratification is 266:1.

A minimum initial dilution of 148:1 is used in the reasonable potential analysis described in Fact Sheet section III.C.4, below. The IWC to be used in chronic toxicity testing is also based on this minimum initial dilution, except when the Westside Recycled Water Project operates at full capacity to produce 1.0 MGD of recycled water, in which case the IWC is to be based on a minimum initial dilution of 266:1 as described in MRP section V.A.2. This increase in minimum initial dilution accounts for ocean currents, which 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).

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

a. Methodology

i. **Dry Weather.** Ocean Plan Appendix VI sets forth a procedure for reasonable potential analyses applicable to dry weather discharges from Discharge Point No. 001. The procedure assumes a lognormal distribution for the effluent data and compares the 95th percentile concentration at 95 percent confidence for each parameter listed in Ocean Plan Table 1, accounting for dilution, to the applicable water quality objective listed 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. WQBELs and monitoring are required.
- Endpoint 2 – There is no reasonable potential. WQBELs are not required, but monitoring may be required.
- Endpoint 3 – The analysis is inconclusive. Any existing WQBELs are retained and monitoring is required.

The four triggers are as follows:

(a) **Trigger 1.** If any detected value after adjustment for dilution (X) is greater than the applicable water quality objective (Co), 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 (148:1)

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

(b) **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 Co, then Endpoint 1 is concluded; otherwise Endpoint 2 is concluded.

(c) **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.

(d) 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.

ii. Wet Weather. For wet weather discharges from Discharge Point No. 001 and the combined sewer discharge points, the requirements described in Provision VI.C.5.c of the Order serve as narrative WQBELs.

b. Effluent Data. Since the Westside Recycled Water Project is expected to become operational during this permit term, two reasonable potential analyses were performed based on the Ocean Plan methodology: one based on current effluent quality and one based on potential future Westside Recycled Water Project effluent quality. In both cases, the analyses were based on dry weather effluent monitoring data the Discharger collected for Discharge Point No. 001 from January 2011 through December 2017. However, with full operation of the Westside Recycled Water Project, the Discharger anticipates that the discharge could potentially consist entirely of reverse osmosis concentrate approximately 1.4 percent of the time. Under these rare circumstances, the effluent could be as much as four times more concentrated when compared to existing conditions. For purposes of the Westside Recycled Water Project reasonable potential 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 is sufficient to evaluate reasonable potential when the most stringent objectives (those with six-month averaging periods) apply.

c. Reasonable Potential Analysis Results. The following tables present the results of the two reasonable potential analyses performed (i.e., existing conditions and potential future Westside Recycled Water Project conditions). The analyses show reasonable potential for chronic toxicity based on Trigger 4. Chronic toxicity tests are intended to detect toxicity from a wide range of pollutants, and since the Facility has a municipal combined sewer system, there is a reasonable potential that unanticipated pollutants could be discharged into the system. Moreover, effluent monitoring data collected during the previous order term showed chronic toxicity at levels close to the previous order’s effluent limit (see Table F-2) and similar toxicity could occur in the future.

Table F-9. Reasonable Potential Analysis No. 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 th Percentile (µg/L)	Result
Objectives for Protection of Marine Aquatic Life							
Ammonia (as nitrogen)	600	30	0	54,000	360	400	Endpoint 2
Arsenic	8	83	83	<2.0	<3.0	---	Endpoint 2
Cadmium	1	83	76	1.2	0.0082	---	Endpoint 2

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 th Percentile (µg/L)	Result
Chlorinated Phenolics	1	7	7	<6.0	<0.040	---	Endpoint 3
Chromium (VI)	2	81	76	8.1	0.055	---	Endpoint 2
Acute Toxicity ^[1]	Not applicable						
Chronic Toxicity	1 TUc	28	0	149 TUc	1.0 TUc	1.1 TUc	Endpoint 1
Copper	3	83	0	26	2.2	2.1	Endpoint 2
Cyanide	1	28	25	8.2	0.055	---	Endpoint 2
Endosulfan (total)	0.009	7	7	<0.0062	<4.2E-5	---	Endpoint 3
Endrin	0.002	7	7	<0.0028	<1.9E-5	---	Endpoint 3
HCH	0.004	7	7	<0.0026	<1.7E-5	---	Endpoint 3
Lead	2	83	26	1.6	0.011	0.0090	Endpoint 2
Mercury	0.04	83	1	0.071	0.00097	0.000070	Endpoint 2
Nickel	5	83	0	27	0.18	0.033	Endpoint 2
Non-chlorinated Phenolics	30	7	6	1.2	0.0081	---	Endpoint 3
Radioactivity ^[2]	Not applicable						
Selenium	15	83	83	<2.0	<0.013	---	Endpoint 2
Silver	0.7	83	82	0.40	0.16	---	Endpoint 2
Total Chlorine Residual ^[3]	Not applicable						
Zinc	20	83	0	97	8.6	8.3	Endpoint 2
Objectives for Protection of Human Health – Noncarcinogens							
1,1,1-Trichloroethane	540,000	7	7	<0.24	<0.0016	---	Endpoint 3
2,4-Dinitrophenol	4.0	7	7	<0.90	<0.0060	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	7	7	<1.6	<0.010	---	Endpoint 3
Acrolein	220	7	7	<2.0	<0.013	---	Endpoint 3
Antimony	1,200	82	74	2.8	0.018	---	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	7	7	<0.93	<0.0062	---	Endpoint 3
Bis(2-Chloroisopropyl)Ether	1,200	7	7	<0.81	<0.0054	---	Endpoint 3
Chlorobenzene	570	7	7	<0.25	<0.0017	---	Endpoint 3
Chromium (III) ^[4]	Not applicable						
Dichlorobenzenes	5,100	7	7	<3.0	<0.020	---	Endpoint 3
Diethyl Phthalate	33,000	7	7	<0.86	<0.0058	---	Endpoint 3
Dimethyl Phthalate	820,000	7	7	<0.97	<0.0065	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	7	7	<0.91	<0.0061	---	Endpoint 3
Ethylbenzene	4,100	7	7	<1.0	<0.0067	---	Endpoint 3
Fluoranthene	15	8	8	<0.55	<0.0037	---	Endpoint 3
Hexachlorocyclopentadiene	58	7	7	<0.91	<0.0061	---	Endpoint 3
Nitrobenzene	4.9	7	7	<0.95	<0.0064	---	Endpoint 3
Thallium	2	82	82	<1.0	<0.0067	---	Endpoint 2
Toluene	85,000	7	7	<0.50	<0.0034	---	Endpoint 3
Tributyltin	0.0014	7	7	<0.0026	<1.7E-5	---	Endpoint 3
Objectives for Protection of Human Health – Carcinogens							
1,1,2,2-Tetrachloroethane	2.3	7	7	<0.68	<0.0045	---	Endpoint 3
1,1,2-Trichloroethane	9.4	7	7	<0.14	<0.00094	---	Endpoint 3
1,1-Dichloroethylene	0.9	7	7	<0.089	<0.00060	---	Endpoint 3
1,2-Dichloroethane	28	7	7	<0.15	<0.0010	---	Endpoint 3
1,2-Diphenylhydrazine	0.16	7	7	<0.90	<0.0060	---	Endpoint 3
1,3-Dichloropropylene	8.9	7	7	<0.24	<0.0016	---	Endpoint 3
1,4-Dichlorobenzene	18	7	7	<1.0	<0.0067	---	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 th Percentile (µg/L)	Result
TCDD Equivalents	3.9E-9	7	7	<2.6E-8	<1.7E-10	---	Endpoint 3
2,4,6-Trichlorophenol	0.29	7	7	<1.0	<0.0067	---	Endpoint 3
2,4-Dinitrotoluene	2.6	7	7	<0.96	<0.0064	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	7	7	<5.0	<0.034	---	Endpoint 3
Acrylonitrile	0.10	7	7	<0.80	<0.0054	---	Endpoint 3
Aldrin	2.2E-5	7	7	<0.00075	<5.0E-6	---	Endpoint 3
Benzene	5.9	7	7	<0.20	<0.0013	---	Endpoint 3
Benzidine	6.9E-5	7	7	<5.0	<0.034	---	Endpoint 3
Beryllium	0.033	82	82	<0.50	<0.0034	---	Endpoint 2
Bis(2-Chloroethyl)Ether	0.045	7	7	<0.95	<0.0064	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	7	2	3.3	0.022	---	Endpoint 3
Carbon Tetrachloride	0.90	7	7	<0.19	<0.0013	---	Endpoint 3
Chlordane	2.3E-5	7	7	<0.018	<0.00012	---	Endpoint 3
Chlorodibromomethane	8.6	7	7	<0.13	<0.00089	---	Endpoint 3
Chloroform	130	7	3	3.7	0.025	---	Endpoint 2
DDT (total)	0.00017	7	7	<2.1	<0.014	---	Endpoint 3
Dichlorobromomethane	6.2	7	7	<0.50	<0.0034	---	Endpoint 3
Dichloromethane	450	7	7	<0.50	<0.0034	---	Endpoint 3
Dieldrin	4.0E-5	7	7	<0.0013	<8.9E-6	---	Endpoint 3
Halomethanes	130	7	7	<0.69	<0.0046	---	Endpoint 3
Heptachlor	5E-5	7	7	<0.0013	<9.0E-6	---	Endpoint 3
Heptachlor Epoxide	2E-5	7	7	<0.00056	<3.8E-6	---	Endpoint 3
Hexachlorobenzene	0.00021	7	7	<0.91	<0.0061	---	Endpoint 3
Hexachlorobutadiene	14	7	7	<0.92	<0.0062	---	Endpoint 3
Hexachloroethane	2.5	7	7	<0.94	<0.0063	---	Endpoint 3
Isophorone	730	7	7	<0.93	<0.0062	---	Endpoint 3
N-Nitrosodimethylamine	7.3	7	7	<0.88	<0.0059	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	7	7	<0.97	<0.0065	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	7	7	<0.83	<0.0056	---	Endpoint 3
PAHs (total)	0.0088	6	6	<1.2	<0.0081	---	Endpoint 3
PCBs	1.9E-5	7	7	<0.40	<0.0027	---	Endpoint 3
Tetrachloroethylene	2.0	7	7	<0.14	<0.0010	---	Endpoint 3
Toxaphene	0.00021	7	7	<0.058	<0.00039	---	Endpoint 3
Trichloroethylene	27	7	7	<0.38	<0.0025	---	Endpoint 3
Vinyl Chloride	36	7	7	<0.66	<0.0044	---	Endpoint 3

Abbreviations:

WQO = water quality objective
 µg/L = micrograms per liter
 TUC = chronic toxicity units

Footnotes:

- ⁽¹⁾ The previous order did not require acute toxicity monitoring.
- ⁽²⁾ The previous order did not require monitoring for radioactivity.
- ⁽³⁾ Chlorine is not added for disinfection, and the previous order did not require monitoring for residual chlorine.
- ⁽⁴⁾ The previous order did not require monitoring for chromium (III); however, the maximum detected concentration of total chromium (8.1 µg/L) is less than the water quality objective for chromium (III) of 190,000 µg/L.

Table F-10. Reasonable Potential Analysis No. 2 - Westside Recycled Water 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 th Percentile (µg/L)	Result
Objectives for Protection of Marine Aquatic Life							
Ammonia (as nitrogen)	600	9	0	81,000	550	600	Endpoint 2
Arsenic	8	83	83	<3.0	<3.0	---	Endpoint 2
Cadmium	1	83	76	1.8	0.012	---	Endpoint 2
Chlorinated Phenolics	1	7	7	<9.0	<0.060	---	Endpoint 3
Chromium (VI)	2	81	76	12	0.082	---	Endpoint 2
Acute Toxicity ^[1]	Not applicable						
Chronic Toxicity ^[2]	1 TUc	28	0	220 TUc	1.5 TUc	1.6 TUc	Endpoint 1
Copper	3	83	0	39	2.2	2.2	Endpoint 2
Cyanide	1	28	25	12	0.082	---	Endpoint 3
Endosulfan (total)	0.009	7	7	<0.0093	<6.2E-5	---	Endpoint 3
Endrin	0.002	7	7	<0.0042	<2.8E-5	---	Endpoint 3
HCH	0.004	7	7	<0.0039	<2.6E-5	---	Endpoint 3
Lead	2	83	26	2.4	0.016	0.012	Endpoint 2
Mercury	0.04	83	1	0.11	0.0012	0.000074	Endpoint 2
Nickel	5	83	0	41	0.27	0.050	Endpoint 2
Non-chlorinated Phenolics	30	7	6	1.8	0.012	---	Endpoint 3
Radioactivity ^[3]	Not applicable						
Selenium	15	83	83	<3.0	<0.020	---	Endpoint 2
Silver	0.7	83	82	0.60	0.16	---	Endpoint 2
Total Chlorine Residual ^[4]	Not applicable						
Zinc	20	83	0	150	8.9	8.5	Endpoint 2
Objectives for Protection of Human Health – Noncarcinogens							
1,1,1-Trichloroethane	540,000	7	7	<0.35	<0.0024	---	Endpoint 3
2,4-Dinitrophenol	4.0	7	7	<1.4	<0.0091	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	7	7	<2.3	<0.016	---	Endpoint 3
Acrolein	220	7	7	<3.0	<0.020	---	Endpoint 3
Antimony	1,200	82	74	4.1	0.028	---	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	7	7	<1.4	<0.0094	---	Endpoint 3
Bis(2-Chloroisopropyl)Ether	1,200	7	7	<1.2	<0.0082	---	Endpoint 3
Chlorobenzene	570	7	7	<0.37	<0.0025	---	Endpoint 3
Chromium (III) ^[5]	Not applicable						
Dichlorobenzenes	5,100	7	7	<4.5	<0.030	---	Endpoint 3
Diethyl Phthalate	33,000	7	7	<1.3	<0.087	---	Endpoint 3
Dimethyl Phthalate	820,000	7	7	<1.5	<0.0098	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	7	7	<1.4	<0.0092	---	Endpoint 3
Ethylbenzene	4,100	7	7	<1.5	<0.010	---	Endpoint 3
Fluoranthene	15	8	8	<0.82	<0.0055	---	Endpoint 3
Hexachlorocyclopentadiene	58	7	7	<1.4	<0.0092	---	Endpoint 3
Nitrobenzene	4.9	7	7	<1.4	<0.0096	---	Endpoint 3
Thallium	2	82	82	<1.5	<0.010	---	Endpoint 2
Toluene	85,000	7	7	<0.42	<0.0028	---	Endpoint 3
Tributyltin	0.0014	7	7	<0.0039	<2.6E-5	---	Endpoint 3
Objectives for Protection of Human Health – Carcinogens							
1,1,2,2-Tetrachloroethane	2.3	7	7	<1.0	<0.0068	---	Endpoint 3
1,1,2-Trichloroethane	9.4	7	7	<0.21	<0.0014	---	Endpoint 3
1,1-Dichloroethylene	0.9	7	7	<0.13	<0.00090	---	Endpoint 3
1,2-Dichloroethane	28	7	7	<0.22	<0.0015	---	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 th Percentile (µg/L)	Result
1,2-Diphenylhydrazine	0.16	7	7	<1.4	<0.0091	---	Endpoint 3
1,3-Dichloropropylene	8.9	7	7	<0.36	<0.0024	---	Endpoint 3
1,4-Dichlorobenzene	18	7	7	<1.5	<0.010	---	Endpoint 3
TCDD Equivalents	3.9E-9	7	7	<0.95E-8	<6.4E-11	---	Endpoint 2
2,4,6-Trichlorophenol	0.29	7	7	<1.5	<0.010	---	Endpoint 3
2,4-Dinitrotoluene	2.6	7	7	<1.4	<0.0097	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	7	7	<7.5	<0.050	---	Endpoint 3
Acrylonitrile	0.10	7	7	<1.2	<0.0081	---	Endpoint 3
Aldrin	2.2E-5	7	7	<0.0011	<7.6E-6	---	Endpoint 3
Benzene	5.9	7	7	<0.30	<0.0020	---	Endpoint 3
Benzidine	6.9E-5	7	7	<7.5	<0.050	---	Endpoint 3
Beryllium	0.033	82	82	<0.75	<0.0050	---	Endpoint 2
Bis(2-Chloroethyl)Ether	0.045	7	7	<1.4	<0.0096	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	7	2	5.0	0.034	---	Endpoint 3
Carbon Tetrachloride	0.90	7	7	<0.29	<0.0020	---	Endpoint 3
Chlordane ^[13]	2.3E-5	7	7	<0.027	<0.00018	---	Endpoint 3
Chlorodibromomethane	8.6	7	7	<0.20	<0.0013	---	Endpoint 3
Chloroform	130	7	3	5.6	0.038	---	Endpoint 2
DDT (total)	0.00017	7	7	<3.12	<0.021	---	Endpoint 3
Dichlorobromomethane	6.2	7	7	<0.26	<0.0018	---	Endpoint 3
Dichloromethane	450	7	7	<0.75	<0.0050	---	Endpoint 3
Dieldrin	0.00004	7	7	<0.0020	<1.3E-5	---	Endpoint 3
Halomethanes	130	7	7	<1.0	<0.0070	---	Endpoint 3
Heptachlor	0.00005	7	7	<0.0013	<1.3E-5	---	Endpoint 3
Heptachlor Epoxide	0.00002	7	7	<0.00084	<5.6E-6	---	Endpoint 3
Hexachlorobenzene	0.00021	7	7	<1.4	<0.0092	---	Endpoint 3
Hexachlorobutadiene	14	7	7	<1.4	<0.0093	---	Endpoint 3
Hexachloroethane	2.5	7	7	<1.4	<0.0095	---	Endpoint 3
Isophorone	730	7	7	<1.4	<0.0094	---	Endpoint 3
N-Nitrosodimethylamine	7.3	7	7	<1.3	<0.0089	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	7	7	<1.5	<0.0098	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	7	7	<1.2	<0.0084	---	Endpoint 3
PAHs (total)	0.0088	6	6	<1.8	<0.012	---	Endpoint 3
PCBs	1.9E-5	7	7	<0.59	<0.0040	---	Endpoint 3
Tetrachloroethylene	2.0	7	7	<0.21	<0.0014	---	Endpoint 3
Toxaphene	0.00021	7	7	<0.087	<0.00058	---	Endpoint 3
Trichloroethylene	27	7	7	<0.57	<0.0038	---	Endpoint 3
Vinyl Chloride	36	7	7	<0.98	<0.0066	---	Endpoint 3

Abbreviations:

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

Footnotes:

- [1] The previous order did not require monitoring for acute toxicity.
- [2] The projection is particularly uncertain 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.
- [3] The previous order did not require monitoring for radioactivity.
- [4] The previous order did not require monitoring for total residual chlorine.
- [5] The previous order did not require monitoring for chromium (III); however, the maximum projected concentration of total chromium (12 µg/L) is less than the water quality objective for chromium (III) of 190,000 µg/L.

5. WQBELs

- a. Dry Weather.** For dry weather discharges from Discharge Point No. 001, the Ocean Plan calls for chronic toxicity WQBELs based on “toxic units” derived from multi-concentration toxicity tests. This Order introduces an updated approach. In 2010, U.S. EPA published the Test of Significant Toxicity (TST) statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The TST statistical approach relies on the same U.S. EPA toxicity test methods. For example, section 9.4.1.2 of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/0136, 1995) states, “the statistical methods recommended in this manual are not the only possible methods of statistical analysis.”

To comply with the chronic toxicity WQBEL, effluent must “Pass” a single chronic toxicity test conducted at the IWC as defined in MRP section V.A.2 using the Test of Significant Toxicity (TST) statistical approach (Welch’s t-test). The test result must reject the following null hypothesis:

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

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. A test result that fails to reject the null hypothesis would not comply with the chronic toxicity WQBEL.

The chronic toxicity WQBEL is expressed as a single-sample maximum. For publicly-owned treatment works, 40 C.F.R. section 122.45(d) requires monthly and weekly effluent limitations unless impracticable. In this case, the single-sample WQBEL is necessary to protect against short-term effects. Limits expressed with monthly or weekly averaging periods could allow chronic toxicity to occur over shorter periods. This approach is comparable to that of the Ocean Plan, which calls for a daily maximum chronic toxicity limit. Single-sample and maximum daily chronic toxicity limits are comparable because chronic toxicity tests can take several days to complete, depending on the test species used. U.S. EPA recommends this approach in *EPA Regions 8, 9 and 10 Toxicity Training Tool* (January 2010).

- b. Wet Weather.** For wet weather discharges from Discharge Point No. 001 and the combined sewer discharge points, the Long-Term Control Plan required pursuant to the *Combined Sewer Overflow (CSO) Control Policy* and described in Provision VI.C.5.c of the Order serves as narrative WQBELs.

D. Discharge Requirement Considerations

- 1. Anti-Backsliding.** 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(1), 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. This Order does not contain dry weather mercury effluent limitations because there is no longer reasonable potential to exceed water quality objectives based on mercury effluent data. Removing the mercury WQBELs is consistent with State Water Board Order No. WQ 2001-16. Consistent with State Water Board Order No. WQ 2001-06, reliance on the TST statistical approach to evaluate chronic toxicity for dry weather discharges from the Oceanside Water Pollution Control Plant is not backsliding because this Order's effluent limitation is not comparable to the effluent limitation in the previous order.

2. **Antidegradation.** 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 was adopted in accordance with antidegradation policies, and thus serves as 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 Recycled Water Project operations commence. The Westside Recycled Water Project is expected to concentrate, but not increase, existing pollutant loads; therefore, it will not degrade Pacific Ocean water quality.
3. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations. This Order's technology-based requirements implement minimum, applicable federal technology-based requirements. This Order also 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 WQBELs have been derived to implement water quality objectives that protect beneficial uses. The beneficial uses and water quality objectives set forth in the Ocean Plan and Basin Plan have been approved pursuant to federal law and are federal water quality standards. U.S. EPA approved the Ocean Plan on February 14, 2006, and also approved subsequent amendments. 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 chapters II.C, II.D, and II.E, and State Water Board Order No. WQ 79-16. These limits are necessary to ensure compliance with applicable water quality standards 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 Program (MRP) 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. 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. Provision VI.C.1.f is based on *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.g.

2. Effluent Characterization Study and Report

This Order does not include effluent limitations for Ocean Plan Table 1 pollutants that do not demonstrate reasonable potential, but this provision requires the Discharger to evaluate monitoring data to verify that the reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to 40 C.F.R. section 122.41(h) and 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

This provision is based on *Combined Sewer Overflow (CSO) Control Policy* section II.B.7, Basin Plan section 4.13.2, Ocean Plan chapter III.C.9, State Water Board Order No. WQ 79-16, and Water Code section 13263. The provision requires the Discharger to include copper and zinc as pollutants of concern because concentrations are often elevated in combined sewer discharges.

4. Special Provisions for Publicly-Owned Treatment Works (POTWs)

- a. **Sludge and Biosolids Management.** This provision is based on Basin Plan section 4.17. “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.
- b. **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.
- c. **Anaerobically-Digestible Material.** Standard Operating Procedures are required for dischargers that accept hauled waste food, 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.

Some publicly-owned treatment works choose to accept organic material, such as waste food, fats, oils, and grease, into their anaerobic digesters to increase production of methane and other biogases for energy production and to prevent such materials from being discharged into the collection system and potentially causing sanitary sewer overflows. The California Department of Resources Recycling and Recovery has proposed to exclude publicly-owned treatment works from Process Facility/Transfer Station permit requirements when the same activities are regulated under waste discharge requirements or NPDES permits. The proposed exclusion is restricted to anaerobically-digestible materials that have been prescreened, slurried, processed, and conveyed in a closed system for co-digestion with regular sewage sludge. The exclusion assumes that the facility has developed Standard Operating Procedures for proper handling, processing, tracking, and management.

- d. **Separate Sanitary Sewer System.** This provision requires compliance with Attachments D and G and states that these requirements may be satisfied by complying

with State Water Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, as amended by State Water Board Order No. WQ 2013-0058-EXEC and any subsequent order updating these requirements. These statewide WDRs require public agencies that own or operate sanitary sewer systems with greater than one mile of sewer lines to enroll for coverage and comply with requirements to develop sanitary sewer management plans and report sanitary sewer overflows, among other provisions and prohibitions. The statewide WDRs contain requirements for operation and maintenance of collection systems, and for reporting and mitigating sanitary sewer overflows, that are more extensive and, therefore, more stringent than the standard provisions in Attachments D and G.

5. Combined Sewer System Controls

a. **Nine Minimum Controls.** The *Combined Sewer Overflow (CSO) Control Policy* establishes nine minimum controls as the minimum technology-based requirements during wet weather for combined sewer systems based on 40 C.F.R. section 125.3:

- Conduct Proper Operations and Maintenance Program
- Maximize Use of Collection System for Storage
- Review and Modify Pretreatment Program
- Maximize Flow to Treatment 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
- Monitor to Characterize Combined Sewer Discharge Impacts and Efficacy of Controls

These nine minimum controls are the best conventional pollutant control technology (BCT) and the best available technology economically achievable (BAT). Provision VI.C.5.a of this Order requires implementation of these nine minimum controls and is consistent with U.S. EPA's guidance document, *Combined Sewer Overflows, Guidance for Nine Minimum Controls* (EPA 832-B-95-003, May 1995).

Provision VI.C.5.a.viii(a) contains specific signage and reporting requirements to inform the public of the location, occurrence, and possible health impacts of combined sewer discharges. The required signage language includes a telephone number so the public can report dry weather discharges to help ensure that corrective actions are taken and warning language to reduce public exposure to potential health risks. This provision contains requirements to protect the shellfish harvesting beneficial use in the Pacific Ocean (see Fact Sheet sections III.C.1 and III.C.2). This provision is consistent with State Water Board Order No. 79-16, U.S. EPA's *NPDES Compendium of Next Generation Compliance Examples* (September 2016), and 40 C.F.R. section 122.38 (*Public Notification Requirements for Combined Sewer Overflows to the Great Lakes Basin*, considered here as guidance).

For sewer overflows from the combined sewer system, Provision VI.C.5.a.ii(b) requires the Discharger to notify and report sewer overflows from the combined sewer system using the State's CIWQS database. Water Code sections 13267 and 13383, 40 C.F.R. section 122.41(h), and the *Combined Sewer Overflow (CSO) Control Policy* authorize the Regional Water Board and U.S. EPA to require information about releases of untreated or partially-treated wastewater. This information is necessary to evaluate combined sewer system performance, and operations and maintenance practices; to determine whether any diversions of untreated or partially-treated wastewater result in a discharge to surface waters; to satisfy public notification requirements; to identify whether the public could be affected; and to establish whether sewer overflows from the combined sewer system result in a nuisance as defined by Water Code section 13050.

- b. Documentation of Nine Minimum Controls.** Provision VI.C.5.b is based on section II.B of the *Combined Sewer Overflow (CSO) Control Policy*, which states that Dischargers should submit appropriate documentation demonstrating implementation of the nine minimum controls. Consistent with U.S. EPA's guidance document, *Combined Sewer Overflows, Guidance for Nine Minimum Controls* (EPA 832-B-95-003, May 1995), a community that has made substantial progress in implementing the nine minimum controls is still expected to provide documentation to the permitting authority to demonstrate how its program addresses each minimum control.
- c. Long-Term Control Plan (LTCP).** The *Combined Sewer Overflow (CSO) Control Policy* requires implementation of a Long-Term Control Plan (LTCP) to satisfy water quality-based requirements during wet weather. *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.f specifies that permits should contain requirements for maximizing the treatment of wet weather flows, as appropriate. The operational requirements in Provision VI.C.5.c of this Order are unchanged from the previous order, except that this Order requires the instantaneous influent flow rate to the Oceanside Water Pollution Control Plant prior to initiating discharge from the Westside Transport/Storage Structure to Discharge Point No. 001 to be 60 MGD to reflect the treatment capacity of the Oceanside Water Pollution Control Plant and operational considerations. This provision allows the Discharger to request changes to these operational parameters to ensure the Discharger's LTCP continues to minimize combined sewer discharges and maximize pollutant removal during wet weather. Provision VI.C.5.d (Task 4) of this Order requires the Discharger to re-evaluate each operational requirement and propose additional performance measures within 24 months of this Order's effective date to ensure wet weather operations are optimized based on current information.
- d. LTCP Update.** The Discharger's report *San Francisco Wastewater Long Term Control Plan Synthesis* (March 30, 2018) summarizes the various documents that comprise the Discharger's historical planning process and LTCP. Provision VI.C.5.d requires the Discharger to update its LTCP with respect to the elements listed in *Combined Sewer Overflow (CSO) Control Policy* section II.C. *Combined Sewer Overflow (CSO) Control Policy* section IV.B describes the major elements that should be included in NPDES permits to implement the policy and ensure protection of water quality. This provision is consistent with U.S. EPA's guidance document *Combined Sewer Overflows, Guidance*

for *Long-Term Control Plan* (EPA 832-B-95-002, September 1995). This provision also implements State Water Board Order No. WQ 79-16, which sets forth specific conditions to be implemented during wet weather (see Fact Sheet § III.C.2.b).

This provision requires the Discharger to update its LTCP for the following reasons:

- *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.b specifies that the permit should contain narrative requirements to ensure that selected controls are implemented, operated, and maintained as described in the Discharger's LTCP.
- *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.d specifies that the permit should contain a requirement to monitor and collect sufficient information to demonstrate compliance with water quality standards and protect designated uses, as well as to determine the effectiveness of combined sewer system controls.
- *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.e specifies that the permit should contain a requirement to reassess combined sewer discharges to sensitive areas in those cases where elimination or relocation was previously found to be not physically possible and economically achievable.
- *Combined Sewer Overflow (CSO) Control Policy* section IV.B.2.f specifies that the permit should contain requirements for maximizing the treatment of wet weather flows at the treatment plant, as appropriate.
- State Water Board Order No. WQ 79-16 requires the Discharger to design, construct, and operate facilities to the greatest extent practical to conform to the standards set forth in chapter II of the 1978 Ocean Plan, except for the bacteriological standards (see Fact Sheet § III.C.2.b).
- State Water Board Order No. WQ 79-16 requires the Discharger to design, construct, and operate facilities to the greatest extent practical to comply with the conditions controlled by the requirements set forth in chapter III, sections A and B, of the 1978 Ocean Plan (see Fact Sheet § III.C.2.b).
- An updated LTCP is necessary to document that the Discharger's LTCP is based on the most current information to assess whether water quality standards are being met and that wet weather discharges are not causing unreasonable degradation of the marine environment (40 C.F.R. § 125.122).

6. Westside Recycled Water Project Operations 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. Moreover, because some requirements of this Order are contingent

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

7. Flame Retardant Special Study

This special study is necessary to evaluate the potential impacts of flame retardants (i.e., polybrominated diphenyl ethers and chlorinated organophosphate flame retardants) in receiving waters. During U.S. EPA consultation with the National Marine Fisheries Service pursuant to the Endangered Species Act and Magnuson-Stevens Act, the National Marine Fisheries Service expressed concern about the presence of flame retardants in plant effluent and flame retardant mass loadings to the Pacific Ocean because organophosphates have been widely detected in San Francisco Bay water, sediment, and aquatic life tissue, and because polybrominated diphenyl ether (PBDE) and tris(1,3-dichloro-2-propyl)phosphate (TDCP) concentrations in San Francisco Bay water have regularly exceeded predicted no effect concentrations for marine settings (*U.S. EPA Biological Evaluation*, April 2019). This special study is consistent with other NPDES permits that authorize discharge to the Pacific Ocean.

8. Efficacy of Combined Sewer System Controls Special Study

This special study is necessary to characterize the quality of the combined sewer discharges and the efficacy of the combined sewer system controls during wet weather. It is based on the *Combined Sewer Overflow (CSO) Control Policy*, which requires “a post-construction water quality monitoring program adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls.”

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 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. The *Combined Sewer Overflow (CSO) Control Policy* requires monitoring to ascertain the effectiveness of controls and to verify compliance with water quality standards and protection of beneficial uses. The Monitoring and Reporting Program (MRP) in Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. Specified monitoring frequencies take into account the quantity and variability of the discharge, past compliance, significance of pollutants, and cost of monitoring. The following provides the rationale for the monitoring and reporting requirements contained in the MRP.

A. Influent Monitoring. Influent flow monitoring is necessary to understand Facility operations and to evaluate compliance with Discharge Prohibition III.D. Influent CBOD₅ and TSS monitoring is necessary to evaluate compliance with this Order’s 85 percent removal requirement. Influent monitoring is also necessary to identify wet weather days, as defined in Attachment A.

- B. Effluent Monitoring.** Dry weather monitoring is necessary to evaluate compliance with this Order's effluent limitations and to provide data for future reasonable potential analyses. Wet weather monitoring is necessary to characterize the efficacy of combined sewer system controls and assess receiving water impacts. Effluent flow monitoring is necessary to understand Facility operations and to assess impacts to receiving waters.
- C. Toxicity Testing.** Dry weather effluent chronic toxicity monitoring is necessary to evaluate compliance with this Order's chronic toxicity effluent limitation and to provide data for future reasonable potential analyses. Routine and accelerated chronic toxicity monitoring frequencies and Toxicity Reduction Evaluation requirements are based on the implementation provisions in Ocean Plan chapter III.C and the standard monitoring procedures guidance in section 7.1 of Ocean Plan Appendix III.

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. When recycled water production exceeds 1.0 MGD, 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.

- D. Receiving Water Monitoring.** Receiving water monitoring is necessary to characterize the effects of the discharges authorized in this Order on the receiving water and species listed under the California Endangered Species Act or federal Endangered Species Act. The requirements are based on the monitoring guidance in Appendix III of the Ocean Plan. 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.

The MRP 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 Provision VI.C.5.a.viii of this Order. The bacteria indicators, *Enterococcus* and fecal coliform, are consistent with the revised bacteria provisions approved by U.S. EPA on March 22, 2019. An additional bacteria indicator, total coliform, is required for shoreline monitoring following combined sewer discharges because monitoring for total coliform is consistent with the indicators identified by the California Department of Public Health.

The MRP no longer requires the Discharger to collect data on demersal fish and epibenthic invertebrate community structure because trawl sampling does not provide data that are useful in determining discharge effects (*Southwest Ocean Outfall Regional Monitoring Program 1997-2012 Summary Report*, April 2014). The MRP also no longer includes 12 offshore receiving water monitoring locations. Seven discontinued locations (Stations 73, 74, 75, 76, 77, 78, and 79) were part of a special study conducted from 2002 through 2016; the Discharger demonstrated that these locations are not significantly different from other reference monitoring locations (*A Review of Benthic Macrofaunal Assemblage and Sediment Conditions in the Reef-Effect Region of the SWOO-RMP*, August 2018). Sediment and infaunal sampling at the other

five discontinued locations (Stations 41, 42, 44, 46, 49) has historically provided very little information because of their location in a unique, high energy environment with little to no fine sediment or animals (Pang, Jennie, email communication, December 14, 2018).

- E. 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.
- F. Other Monitoring Requirements.** Pursuant to CWA section 308, U.S. EPA requires dischargers to participate in a Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program. The program annually evaluates the analytical abilities of laboratories that perform or support NPDES permit-required monitoring. The program applies to discharger laboratories and contract laboratories. There are two options to comply: (1) dischargers can obtain and analyze DMR-QA samples, or (2) pursuant to a waiver U.S. EPA issued to the State Water Board, dischargers can submit results from the most recent Water Pollution Performance Evaluation Study. Dischargers must submit results annually to the State Water Board, which then forwards the results to U.S. EPA.

Recycled water monitoring and reporting requirements are required to be incorporated into this Order by State Water Board Order No. WQ 2019-0037-EXEC (Amending Monitoring and Reporting Programs for Waste Discharge Requirements, NPDES Permits, Water Reclamation Requirements, Master Recycling Permits, and General Waste Discharge Requirements) issued on July 24, 2019, pursuant to Water Code sections 13267 and 13383.

VIII. PUBLIC PARTICIPATION

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

- A. Notification of Interested Parties.** The Regional Water Board and U.S. EPA 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 *San Francisco Chronicle* and <http://www.epa.gov/region9/water/npdes/pubnotices.html>. The public had access to the Regional Water Board agenda and any changes in dates and locations through the Regional Water Board's website at <http://www.waterboards.ca.gov/sanfranciscobay> and U.S. EPA's website at <http://www.epa.gov/region9/water/npdes/pubnotices.html>.
- B. Written Comments.** Interested persons were invited to submit written comments concerning the tentative order as explained through the notification process. Comments to the Regional Water Board and U.S. EPA 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 Becky Mitschele, 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 Regional Water Board and U.S. EPA consideration, the written comments were due by 5:00 p.m. on May 20, 2019.

C. 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, September 11, 2019
Time: 9:00 a.m.
Location: Elihu Harris State Office Building
1515 Clay Street, 1st Floor Auditorium
Oakland, CA 94612
Contact: Jessica Watkins, (510) 622-2349, 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.

D. Reconsideration of Waste Discharge Requirements. Any aggrieved person may petition the State Water Board to review the Regional Water Board decision 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.

E. 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.

- F. Information and Copying.** The Report of Waste Discharge, related supporting documents, and comments received are on file and may be inspected at the Regional Water Board office at 1515 Clay Street, Suite 1400, Oakland, California at any time between 8:00 a.m. and 5:00 p.m. (except noon to 1:00 p.m.), Monday through Friday, and at the U.S. EPA Region IX office at 75 Hawthorne Street, San Francisco, California 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 Regional Water Board at (510) 622-2300 or U.S. EPA at (415) 972-3524.
- G. 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 and U.S. EPA, reference this Facility, and provide a name, address, and phone number.
- H. Additional Information.** Requests for additional information or questions regarding this Order should be directed to Jessica Watkins at (510) 622-2349 or jessica.watkins@waterboards.ca.gov, or Becky Mitschele at (415) 972-3492 or mitschele.becky@epa.gov.

ATTACHMENT G

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

November 2017

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REGIONAL STANDARD PROVISIONS, AND MONITORING AND REPORTING REQUIREMENTS

APPLICABILITY

This document supplements the requirements of Federal Standard Provisions (Attachment D). For clarity, these provisions are arranged using to the same headings as those used in 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 – Supplement to Attachment D, Provision I.C.

- 1. Contingency Plan.** The Discharger shall maintain a Contingency Plan as prudent in accordance with current 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 (see Provision I.C.2, below) into one document. In accordance with Regional Water Board Resolution No. 74-10, discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below may 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, provide for the following:
 - a.** Sufficient personnel for continued facility operation and maintenance during employee strikes or strikes against contractors providing services;
 - b.** Maintenance of adequate chemicals or other supplies, and spare parts necessary for continued facility operations;
 - c.** Emergency standby power;
 - d.** Protection against vandalism;
 - e.** Expeditious action to repair failures of, or damage to, equipment, including any sewer lines;
 - f.** Reporting of spills and discharges of untreated or inadequately treated wastes, including measures taken to clean up the effects of such discharges; and
 - g.** Maintenance, replacement, and surveillance of physical condition of equipment and facilities, including any sewer lines.

2. **Spill Prevention Plan.** The Discharger shall maintain a Spill Prevention Plan to prevent accidental discharges and to minimize the effects of any such discharges. The Spill Prevention Plan shall do the following:
 - a. Identify the possible sources of accidental discharge, untreated or partially-treated waste bypass, and polluted drainage;
 - b. State when current facilities and procedures became operational and evaluate their effectiveness; and
 - c. Predict the effectiveness of any proposed facilities and procedures and provide an implementation schedule with interim and final dates when the proposed facilities and procedures will be constructed, implemented, or operational.

D. Proper Operation and Maintenance – Supplement to Attachment D, Provision I.D

1. **Operation and Maintenance Manual.** The Discharger shall maintain an Operation and Maintenance 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 Operation and Maintenance Manual shall be kept updated to reflect significant changes in treatment facility equipment and operational practices. The Operation and Maintenance 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 maintain a Wastewater Facilities Status Report and regularly review, revise, or update it, as necessary. 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 Title 23, section 3680, 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 – Addition to 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. 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 shall continue in force and effect until the permit is reissued or the Regional Water Board rescinds the permit.

II. STANDARD PROVISIONS – PERMIT ACTION – Not Supplemented

III. STANDARD PROVISIONS – MONITORING

A. Sampling and Analyses – Supplement to Attachment D, Provisions III.A and III.B

1. **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. **Minimum Levels.** For the 126 priority pollutants, the Discharger should use the analytical methods listed in Table B unless the Monitoring and Reporting Program (MRP, Attachment E) requires a particular method or minimum level (ML). All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.
3. **Monitoring Frequency.** The MRP specifies the minimum sampling and analysis schedule.

a. Sample Collection Timing

- i. The Discharger shall collect influent samples on varying days selected at random and shall not include any plant recirculation or other sidestream wastes, unless otherwise stipulated in the MRP. The Executive Officer may approve an alternative influent sampling plan if it is representative of plant influent and complies with all other permit requirements.
- ii. The Discharger shall collect effluent samples on days coincident with influent sampling, unless otherwise stipulated by the MRP. If influent sampling is not required, the Discharger shall collect effluent samples on varying days selected at random, unless otherwise stipulated in the MRP. The Executive Officer may approve an alternative effluent sampling plan if it is representative of plant discharge and in compliance with all other permit requirements.
- iii. The Discharger shall collect effluent grab samples during periods of daytime maximum peak flows (or peak flows through secondary treatment units for facilities that recycle effluent).
- iv. Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay the MRP requires. During the course of the bioassay, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event that a bioassay result does not comply with effluent limitations, the Discharger

shall analyze the retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limitations.

- (a) The Discharger shall perform bioassays on final effluent samples; when chlorine is used for disinfection, bioassays shall be performed on effluent after chlorination and dechlorination; and
- (b) The Discharger shall analyze for total ammonia nitrogen and calculate the amount of un-ionized ammonia whenever test results fail to meet effluent limitations.

b. Conditions Triggering Accelerated Monitoring

- i. Average Monthly Effluent Limitation Exceedance.** If the results from two consecutive samples of a constituent monitored in a particular month exceed the average monthly effluent limitation for any parameter (or if the required sampling frequency is once per month or less and the monthly sample exceeds the average monthly effluent limitation), 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 complies with the average monthly effluent limitation.
- ii. Maximum Daily Effluent Limitation Exceedance.** If a sample result exceeds a maximum daily effluent limitation, the Discharger shall, within 24 hours after the result is received, increase its sampling frequency to daily until the results from two samples collected on consecutive days show compliance with the maximum daily effluent limitation.
- iii. Acute Toxicity.** If final or intermediate results of an acute bioassay indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single acute bioassay is less than 70 percent), the Discharger shall initiate a new test as soon as practical or as described in applicable State Water Board plan provisions that become effective after adoption of these Regional Standard Provisions. The Discharger shall investigate the cause of the mortalities and report its findings in the next self-monitoring report.
- iv. Chlorine.** 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 limitation is achieved, unless the Discharger monitors chlorine residual continuously. In such cases, the Discharger shall continue to conduct continuous monitoring.
- v. Bypass.** Except as indicated below, if a Discharger bypasses any portion of its treatment facility, it shall monitor flows and collect samples at affected discharge points and analyze samples for all constituents with effluent limitations on a daily basis for the duration of the bypass. The Discharger need not accelerate chronic toxicity monitoring. The Discharger also need not collect and analyze samples for mercury, dioxin-TEQ, and PCBs after the first day of the bypass. The Discharger may

satisfy the accelerated acute toxicity monitoring requirement by conducting a flow-through test or static renewal test that captures the duration of the bypass (regardless of the method specified in the MRP). If bypassing disinfection units only, the Discharger shall only monitor bacteria indicators daily.

(a) Bypass for Essential Maintenance. If a Discharger bypasses a treatment unit for essential maintenance pursuant to Attachment D section I.G.2, the Executive Officer may reduce the accelerated monitoring requirements above if the Discharger (i) monitors effluent at affected discharge points on the first day of the bypass for all constituents with effluent limitations, except chronic toxicity; and (ii) identifies and implements measures to ensure that the bypass will continue to comply with effluent limitations.

(b) Approved Wet Weather Bypasses. If a Discharger bypasses a treatment unit or permitted outfall during wet weather with Executive Officer approval pursuant to Attachment D section I.G.4, the Discharger shall monitor flows and collect and retain samples for affected discharge points on a daily basis for the duration of the bypass. The Discharger shall analyze daily for TSS using 24-hour composites (or more frequent increments) and for bacteria indicators with effluent limitations using grab samples. If TSS exceeds 45 mg/L in any composite sample, the Discharger shall also analyze daily the retained samples for all other constituents with effluent limitations, except oil and grease, mercury, PCBs, dioxin-TEQ, and acute and chronic toxicity. Additionally, at least once each year, the Discharger shall analyze the retained samples for one approved bypass for all other constituents with effluent limitations, except oil and grease, mercury, PCBs, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

B. Standard Observations – Addition to Attachment D

- 1. Receiving Water Observations.** The following requirements only apply when the MRP requires standard observations of receiving waters. 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** — color, source, and size of affected area.
 - c. Odor** — presence or absence, characterization, source, and distance of travel.
 - d. Beneficial Water Use** — estimated number of water-associated waterfowl or wildlife, fisherpeople, and other recreational activities.
 - e. Hydrographic Condition** — time and height of high and low tides (corrected to nearest National Oceanic and Atmospheric Administration location for the sampling date and time).

- 2. Disinfection Process.** For the disinfection process, records shall include the following:
 - a. For bacteriological analyses:
 - i. Wastewater flow rate at the time of sample collection; and
 - ii. Required statistical parameters for cumulative bacterial values (e.g., moving median or geometric mean for the number of samples or sampling period identified in the MRP).
 - b. For the chlorination process (when chlorine is used for disinfection), at least daily average values for the following:
 - i. Chlorine residual of treated wastewater as it enters the chlorine contact basin (mg/L);
 - ii. Chlorine dosage (kg/day); and
 - iii. Dechlorination chemical dosage (kg/day).
- 3. Wastewater Treatment Process Solids.** For each treatment unit process that involves solids removal from the wastewater stream, records shall include the following:
 - a. 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
 - b. Final disposition of such solids (e.g., landfill, other subsequent treatment unit).
- 4. Treatment Process Bypasses.** For all treatment process bypasses, including wet weather blending, records shall include the following:
 - a. Chronological log of treatment process bypasses;
 - b. Identification of treatment processes bypassed;
 - c. Beginning and ending dates and times of bypasses;
 - d. Bypass durations;
 - e. Estimated bypass volumes; and
 - f. Description of, or reference to other reports describing, the bypasses, their cause, the corrective actions taken (except for wet weather blending explicitly approved within the permit and in compliance with any related permit conditions), and any additional monitoring conducted.
- 5. Treatment Plant Overflows.** The Discharger shall retain a chronological log of overflows at the treatment plant, including the headworks and all units and appurtenances downstream, and records supporting the information provided in accordance with Provision V.E.2, below.

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 – Supplement to Attachment D, Provision V.C

1. **Self-Monitoring Reports.** For each reporting period established in the MRP, the Discharger shall submit a self-monitoring report to the Regional Water Board in accordance with the requirements listed in the MRP and below:
 - a. **Transmittal Letter.** Each self-monitoring report shall be submitted with a transmittal letter that includes the following:
 - i. Identification of all violations of effluent limitations or other waste discharge requirements found during the reporting period;
 - ii. Details regarding the violations, such as parameters, magnitude, test results, frequency, and dates;
 - iii. Causes of the violations;
 - iv. Corrective actions taken or planned to resolve violations and prevent recurrences, and dates or time schedules for implementation (the Discharger may refer to previously submitted reports that address the corrective actions);
 - v. Explanation for any data invalidation. Data should not be submitted in a self-monitoring report if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate a measurement after submitting it in a self-monitoring report, the Discharger 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. The formal 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), and a discussion of the corrective actions taken or planned (with a time schedule for completion) to prevent recurrence of the sampling or measurement problem;
 - vi. Description of blending, if any. If the Discharger blends, it shall describe the duration of blending events and certify whether the blending complied with all conditions for blending;
 - vii. Description of other bypasses, if any. If the Discharger bypasses any treatment units (other than blending), it shall describe the duration of the bypasses and effluent quality during those times; and
 - viii. Signature. The transmittal letter shall be signed in accordance with Attachment D, Provision V.B.

- b. Compliance Evaluation Summary.** Each self-monitoring report shall include a compliance evaluation summary that addresses each parameter for which the permit specifies effluent limitations, the number of samples taken during the monitoring period, and the number of samples that exceed the effluent limitations.
- c. More Frequent Monitoring.** If the Discharger monitors any pollutant more frequently than required by the MRP, the Discharger shall include the results of such monitoring in the calculation and reporting of the data submitted in the self-monitoring report.
- d. Analysis Results**
- i. Tabulation.** Each self-monitoring report shall include tabulations of all required analyses and observations, including parameters, dates, times, sample stations, types of samples, test results, method detection limits, method minimum levels, and method reporting levels (if applicable), signed by the laboratory director or other responsible official.
- ii. Multiple Samples.** Unless the MRP specifies otherwise, when determining compliance with effluent limitations (other than instantaneous effluent limitations) and more than one sample result is available, the Discharger shall compute the arithmetic mean. If the data set contains one or more results that are “Detected, but Not Quantified (DNQ) or “Not Detected” (ND), the Discharger shall instead compute the median in accordance with the following procedure:
- (a) 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.
- (b) The median of the data set shall be determined. If the data set has an odd number of data points, the median is the middle value. If the data set has an even number of data points, the median is the average of the two values around the middle, unless one or both of these values is ND or DNQ, in which case the median shall be the lower of the two results (where DNQ is lower than a quantified value and ND is lower than DNQ).
- iii. Duplicate Samples.** The Discharger shall report the average of duplicate sample analyses when reporting for a single sample result (or the median if one or more of the duplicates is DNQ or ND [see Provision V.C.1.d.ii, above]). For bacteria indicators, the Discharger shall report the geometric mean of the duplicate analyses.
- iv. Dioxin-TEQ.** The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the 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 (MLs) to zero. The Discharger shall calculate and report dioxin-TEQ using the

following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

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

where: C_x = measured or estimated concentration of congener x
 TEF_x = toxicity equivalency factor for congener x
 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)	2005 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	0.0003	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

- e. **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 may require additional time to complete analytical processes and report results. In these cases, the Discharger shall describe the circumstances in the self-monitoring report and include the data for these parameters and relevant discussions of any violations in the next self-monitoring report due after the results are available.
- f. **Annual Self-Monitoring Reports.** By the date specified in the MRP, the Discharger shall submit an annual self-monitoring report covering the previous calendar year. The report shall contain the following:
 - i. Comprehensive discussion of treatment plant performance, including documentation of any blending or other bypass events, 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 the performance and reliability of wastewater collection, treatment, or disposal practices;

- ii. List of approved analyses, including the following:
 - (a) List of analyses for which the Discharger is certified;
 - (b) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory need not be submitted but shall be retained onsite); and
 - (c) List of “waived” analyses, as approved;
- iii. Plan view drawing or map showing the Discharger’s facility, flow routing, and sampling and observation station locations; and
- iv. Results of facility report reviews. The Discharger shall regularly review, revise, and update, as necessary, the Operation and Maintenance Manual, Contingency Plan, Spill Prevention Plan, and Wastewater Facilities Status Report so these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall describe or summarize its review and evaluation procedures, recommended or planned actions, and estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure that they remain up-to-date.

D. Compliance Schedules – Not supplemented

E. Twenty-Four Hour Reporting – Supplement to Attachment D, Provision V.E

1. Oil or Other Hazardous Material Spills

- a. Within 24 hours of becoming aware of a spill of oil or other hazardous material not contained onsite and completely cleaned up, the Discharger shall report as follows:
 - i. If the spill exceeds reportable quantities for hazardous materials listed in 40 C.F.R. part 302. The Discharger shall call the California Office of Emergency Services (800-852-7550).
 - ii. If the spill does not exceed reportable quantities for hazardous materials listed in 40 C.F.R., part 302, the Discharger shall call the Regional Water Board (510-622-2369).
- b. The Discharger shall submit a written report to the Regional Water Board within five working days following either of the above telephone notifications unless directed otherwise by Regional Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:
 - i. Date and time of spill, and duration if known;
 - ii. Location of spill (street address or description of location);

- iii. Nature of material spilled;
- iv. Quantity of material spilled;
- v. Receiving water body affected, if any;
- vi. Cause of spill;
- vii. Estimated size of affected area;
- viii. Observed impacts to receiving waters (e.g., oil sheen, fish kill, water discoloration);
- ix. Corrective actions taken to contain, minimize, or clean up the spill;
- x. Future corrective actions planned to prevent recurrence, and implementation schedule; and
- xi. Persons or agencies notified.

2. Unauthorized Municipal Wastewater Treatment Plant Discharges¹

- a. **Two-Hour Notification.** For any unauthorized discharge that enters a drainage channel or surface water, the Discharger shall, as soon as possible, but not later than two hours after becoming aware of the discharge, notify the California Office of Emergency Services (800-852-7550) and the local health officer or director of environmental health with jurisdiction over the affected water body. Notification shall include the following:
 - i. Incident description and cause;
 - ii. Location of threatened or involved waterways or storm drains;
 - iii. Date and time that the unauthorized discharge started;
 - iv. Estimated quantity and duration of the unauthorized discharge (to the extent known), and estimated amount recovered;
 - v. Level of treatment prior to discharge (e.g., raw wastewater, primary-treated wastewater, or undisinfected secondary-treated wastewater); and
 - vi. Identity of person reporting the unauthorized discharge.

¹ 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.

- b. Five-Day Written Report.** Within five business days following the two-hour notification, the Discharger shall submit a written report that includes, in addition to the information listed in Provision V.E.2.a, above, the following:
- i.** Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;
 - ii.** Efforts implemented to minimize public exposure to the unauthorized discharge;
 - iii.** Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of receiving water) and extent of sampling if conducted;
 - iv.** Corrective measures taken to minimize the impact of the unauthorized discharge;
 - v.** Measures to be taken to minimize the potential for a similar unauthorized discharge in the future;
 - vi.** Summary of Spill Prevention Plan or Operation and Maintenance Manual modifications to be made, if necessary, to minimize the potential for future unauthorized discharges; and
 - vii.** Quantity and duration of the unauthorized discharge, and the amount recovered.

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 – Addition to Attachment D

More definitions can be found in Attachment A of this NPDES Permit.

A. Arithmetic Calculations

- 1. Geometric Mean.** 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

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_N)^{1/N}$$

Where “N” is the number of data points for the period analyzed and “C” is the concentration for each of the “N” data points.

2. **Mass Emission Rate.** The rate of discharge expressed in mass. The 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_i” and “C_i” 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_i” is the concentration measured in the composite sample and “Q_i” 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_t” is the total flow rate of the combined waste streams.

3. **Removal Efficiency.** 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):

$$\text{Removal Efficiency (\%)} = 100 \times [1 - (\text{Effluent Concentration} / \text{Influent Concentration})]$$

B. Blending – the practice of bypassing biological treatment units and recombining the bypass wastewater with biologically-treated wastewater.

C. Composite Sample – 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 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 protocol.

- D. Duplicate Sample** – a second sample taken from the same source and at the same time as an initial sample (such samples are typically analyzed identically to measure analytical variability).
- E. Grab Sample** – an individual sample collected during a short period not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the sample is collected.
- F. Overflow** – the intentional or unintentional spilling or forcing out of untreated or partially-treated waste from a transport system (e.g., through manholes, at pump stations, or at collection points) upstream of the treatment plant headworks or from any part of a treatment plant.
- G. Priority Pollutants** – those constituents referred to in 40 C.F.R. part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule.
- H. Untreated waste** – raw wastewater.

Table B
List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method ²	Minimum Levels ³ (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) ⁴	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) ⁵												
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, C or I				5								
15	Asbestos (only required for dischargers to MUN waters) ⁶	0100.2 ⁷												
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										
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										

² 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.

³ 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.

⁴ 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).

⁵ 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).

⁶ MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

⁷ 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 ²	Minimum Levels ³ (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
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 Benzofluoranthene	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									
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										

CTR No.	Pollutant/Parameter	Analytical Method ²	Minimum Levels ³ (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVA	DCP
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) ⁸	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											
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											

⁸ 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.

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)

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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 IX, 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 IX, 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 Discharge 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 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.

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.

Table H-1: Minimum Frequency of Pretreatment Program Monitoring	
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 D. 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.

Appendix B
Response to Comments

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

RESPONSE TO WRITTEN COMMENTS

on the Tentative Order for

City and County of San Francisco

Oceanside Water Pollution Control Plant, Wastewater Collection System,
and Westside Recycled Water Project

U.S. EPA and the Regional Water Board received written comments on a tentative order distributed for public comment from the following:¹

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|----------------------------|--------------------------------------------------------|
| 1. Carrico (May 20, 2019) | 10. Hooper (May 20, 2019) |
| 2. Chang (May 20, 2019) | 11. Bachelor (May 20, 2019,
clarified May 22, 2019) |
| 3. Edwards (May 20, 2019) | 12. Gelini (May 20, 2019,
forwarded May 21, 2019) |
| 4. Jasper (May 20, 2019) | 13. Art (May 20, 2019) |
| 5. Moran (May 20, 2019) | 14. Tilton (May 20, 2019) |
| 6. Payne (May 20, 2019) | 15. City and County of San Francisco
(May 20, 2019) |
| 7. Wagnon (May 20, 2019) | |
| 8. Bachelor (May 20, 2019) | |
| 9. Dunseth (May 16, 2019) | |

In most cases, we summarized the comments, shown in *italics* (paraphrased for brevity), and responded below. For the full content and context of the comments, readers should refer to the comment letters. Where San Francisco submitted its comments in a tabular format, we responded in the same tabular format without paraphrasing.

Revisions to the tentative order are shown with underline text for additions and strikethrough ~~text~~ for deletions. This document also contains staff-initiated revisions.

CARRICO, CHANG, EDWARDS, JASPER, MORAN, PAYNE, AND WAGNON

Carrico et al. Comment 1: San Francisco's sewers discharge raw sewage into homes and businesses, and San Francisco refuses to address the issue. San Francisco created new flood maps that require homeowners to disclose these issues to potential buyers, passing the burden for resolving the problem onto the homeowners and businesses. The permit should not allow San Francisco to use the term "flooding."

¹ We also received comments from Cooley on May 21, 2019, after the comment period closed; those comments reiterate others' comments.

Response: The tentative order does not describe sewer overflows from the combined sewer system as “flooding”; however, we cannot dictate the terminology San Francisco uses outside the permitting context. Attachment A (Definitions) defines “sewer overflows from the combined sewer system” as “Release or diversion of any wastewater or combined wastewater and stormwater from the combined sewer collection system. Sewer overflows from the combined sewer system can occur in public rights of way or on private property. Sewer overflows from the combined sewer system do not include releases due to failures in privately-owned sewer laterals or authorized combined sewer discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007.”

Carrico et al. Comment 2: The permit should require real-time public disclosure of raw sewage discharges.

Response: The tentative order requires San Francisco to report combined sewer discharges and sewer overflows from the combined sewer system. Provision VI.C.5.a.viii requires that the public be informed of the locations of combined sewer discharge outfalls, the actual occurrences of combined sewer discharges, the possible health and environmental impacts of these discharges, and the recreational or commercial activities (e.g., swimming, shellfish harvesting) curtailed as a result of the discharges. Provision VI.C.5.a.ii requires San Francisco to report sewer overflows from the combined sewer system within three days. Attachment G section V.E.2.a requires San Francisco to notify the California Office of Emergency Services and local health officer or director of environmental health as soon as possible, but not later than two hours after becoming aware of any unauthorized discharge that enters a drainage channel or surface water.

Carrico and Others Comment 3: The permit should impose high fines for every violation.

Response: U.S. EPA and the Regional Water Board cannot assess fines through a permit reissuance. However, we continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance.

BACHELOR, DUNSETH, AND HOOPER

Bachelor, Dunseth, and Hooper Comment 1: What San Francisco has been allowed to do for decades is reprehensible, indefensible, and possibly criminal, and U.S. EPA and the Regional Water Board must stop San Francisco from putting raw sewage into residents’ homes.

Response: U.S. EPA and the Regional Water Board agree that the release of raw sewage into homes is a serious health concern. The tentative order does not authorize releases into homes; it only authorizes discharges from specific discharge points. Attachment D section I.D requires San Francisco to “properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used ... to achieve compliance with the conditions of this Order.” Provision VI.C.5.a.i imposes more specific operations and maintenance requirements. Attachment G section I.I.1 states, “Neither the treatment nor the

discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.” As stated in response to Carrico and Others Comment 2, above, U.S. EPA and the Regional Water Board require reporting and notification of sewer overflows from the combined sewer system. We take these concerns seriously and are discussing potential solutions with San Francisco. We will pursue enforcement as necessary to achieve compliance.

Bachelor, Dunseth, and Hooper Comment 2: *Currently San Francisco is a “self-monitoring reporter,” meaning it need not report excursions or sewer overflows from the combined sewer system. The City pollutes with impunity by allowing sewage to escape its pipes.*

Response: Provision VI.C.5.a.ii(b) requires San Francisco to report sewer overflows from the combined sewer system. See response to Bachelor, Dunseth, and Hooper Comment 1.

Bachelor, Dunseth, and Hooper Comment 3: *It is not uncommon for 250-pound manhole covers to blow off the street, sending geysers of sewage into the air. These manhole covers could hit and kill someone, and the dislodged covers leave open holes in the streets.*

Response: We agree that dislodged manhole covers pose a safety concern. Manhole safety is an aspect of proper facility operations and maintenance, and the tentative order requires San Francisco to properly operate and maintain its facilities (see Attachment D section I.D and Provision VI.C.5.a.i).

Bachelor, Dunseth, and Hooper Comment 4: *San Francisco ignores longstanding problems, claiming to “comply with all applicable laws” and to “foster constructive relationships with neighborhoods,” but its neglected system puts citizens’ health and well-being at risk. Victims seeking redress are forced to seek expensive legal assistance.*

Response: We take these concerns seriously and are discussing potential solutions with San Francisco. We continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance. The Clean Water Act also allows others to enforce NPDES permit requirements.

Bachelor, Dunseth, and Hooper Comment 5: *U.S. EPA and the Regional Water Board’s new requirements, the “Nine Minimum Controls,” are an essential element of this permit. They must be approved to ensure violations are reported and that residents have legal recourse. In addition, there must be serious and meaningful penalties in response to permit violations.*

Response: We agree that the “Nine Minimum Controls” set forth in Provision VI.C.5.a of the tentative order are an essential element of this permit; however, they are not new. Since U.S. EPA adopted the *Combined Sewer Overflow (CSO) Control Policy*, previous orders have also required the “Nine Minimum Controls.” Regarding penalties, although U.S. EPA and the Regional Water Board cannot assess fines through a permit reissuance, we continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance.

Bachelor, Dunseth, and Hooper Comment 6: *San Francisco created a “flood map” instead of addressing the need for infrastructure improvements in the vicinity of Cayuga Avenue and*

elsewhere. San Francisco asserts that, with this map, property owners will be eligible to purchase federal flood insurance. This diverts attention from the real problem.

Response: The tentative order neither requires San Francisco to create a flood map nor prevents it from doing so. However, the tentative order does require San Francisco to properly operate and maintain its wastewater facilities. See responses to Bachelor, Dunseth, and Hooper Comment 1. In addition, the tentative order requires San Francisco to update its Long-Term Control Plan to evaluate potential improvements to its wet weather operations, including improvements designed to minimize the “frequency, volume, and duration of combined sewer discharges and sewer overflows from the combined sewer system” (see Table 7, Task 4).

Bachelor, Dunseth, and Hooper Comment 7: *San Francisco must use one set of descriptive terms, in plain English, and with approval from permitting authorities, to describe its system, the problems, and the solutions to those problems.*

Response: The terminology in the tentative order is internally consistent. Many terms are defined in Attachment A or elsewhere in the document. However, we cannot dictate the terminology San Francisco uses outside the permitting context.

Bachelor, Dunseth, and Hooper Comment 8: *San Francisco must create a citizen’s advisory board for public input, advocacy, and oversight.*

Response: U.S. EPA and the Regional Water Board cannot require San Francisco to convene a citizen’s advisory board, but the tentative order does not preclude San Francisco from doing so. Provision VI.C.5.d (Table 7, Task 2) requires San Francisco to submit a description of its completed and planned public participation efforts in relation to its decision-making process related to capital planning, including implementation of any additional long-term combined sewer system controls.

Bachelor, Dunseth, and Hooper Comment 9: *San Francisco must report to authorities and the public all combined sewer discharges and sewer overflows from the combined sewer system, and install public notices in a timely manner visible to all.*

Response: See response to Carrico and Others Comment 2, above. Whenever a combined sewer discharge occurs, Provision VI.C.5.a.viii requires San Francisco to provide electronic notification about the discharge and post warning signs at beaches near the outfall. For sewer overflows from the combined sewer system, Provision VI.C.5.a.ii(b) also imposes reporting requirements.

Bachelor, Dunseth, and Hooper Comment 10: *The tentative order refers to “sensitive areas” where people swim and recreate. Our homes, sidewalks, and streets should also be considered sensitive areas. San Francisco’s solution to designate our neighborhood as a “flood zone” is offensive and inaccurate.*

Response: In the context of the tentative order, “sensitive areas” is a term defined in U.S. EPA’s *Combined Sewer Overflow (CSO) Control Policy*. “Sensitive areas” include designated

outstanding national resource waters, national marine sanctuaries, waters with threatened or endangered species and their habitat, waters with primary contact recreation, public drinking water intakes or their designated protection areas, and shellfish beds. The fact that homes, sidewalks, and streets are not considered sensitive areas within this context in no way diminishes concerns about sewer overflows from the combined sewer system and their effects on homes, sidewalks, and streets.

Regarding flood zones, the tentative order neither requires San Francisco to create flood maps nor prevents it from doing so. However, the tentative order does require San Francisco to properly operate and maintain its wastewater facilities, and update its Long-Term Control Plan. See responses to Bachelor, Dunseth, and Hooper Comment 1.

Bachelor, Dunseth, and Hooper Comment 11: *We support the “Long-Term Control Plan” requirements of Provision VI.C.5.c of the tentative order. The Oceanside, Southeast, and North Point Facility wastewater treatment plants should be held to the same standard.*

Response: The tentative order retains the “Long-Term Control Plan” requirements of Provision VI.C.5.c. The Regional Water Board will consider similar requirements when it reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system.

Bachelor, Dunseth, and Hooper Comment 12: *U.S. EPA and the Regional Water Board should not allow San Francisco to build a recycled water project. All “green” and non-essential projects must be stopped until the current infrastructure is 100 percent functional and there are no more sewer-flooding incidents. Immediate improvements are needed at Alemany Boulevard and Folsom Street. San Francisco must commit to building a tunnel under Potrero Hill to alleviate flooding at 17th and Folsom Streets.*

Response: U.S. EPA and the Regional Water Board support water recycling and green infrastructure because they benefit water supply and water quality. Pursuing these types of projects does not prevent San Francisco from undertaking efforts to address other infrastructure needs. Provision VI.C.5.d requires that San Francisco consider a range of long-term combined sewer system control alternatives, which could include both green infrastructure and building a tunnel under Potrero Hill, as suggested.

Bachelor, Dunseth, and Hooper Comment 13: *Provision VI.C.5.a.i(b) of the tentative order requires San Francisco’s budget to “allocate sufficient funds and personnel for routine operations and maintenance, and to provide for possible emergencies.” This requirement should apply to the entire city.*

Response: The Regional Water Board will consider similar requirements when it reissues the NPDES permit for San Francisco’s other wastewater treatment system (i.e., the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system).

Bachelor, Dunseth, and Hooper Comment 14: Provision VI.C.5.a.iv of the tentative order requires San Francisco to “maximize the volume of wastewater that receives treatment at the Oceanside Plant.” San Francisco should also consider an earlier plan to build the infrastructure needed to send the Cayuga wastewater west, instead of east toward Alemany Boulevard and Folsom Street.

Response: When the Regional Water Board reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system, it will consider requirements similar to those in Provision VI.C.5.

Bachelor, Dunseth, and Hooper Comment 15: Provision VI.C.5.a.viii of the tentative order requires San Francisco to “notify the public of combined sewer discharges and sewer overflows from the combined sewer system.” The Oceanside, Southeast, and North Point Facility wastewater treatment plants should be held to the same standard.

Response: The Regional Water Board will consider similar requirements when it reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system.

Bachelor, Dunseth, and Hooper Comment 16: Provision VI.C.5.a.viii(b) of the tentative order requires San Francisco to report sewer overflows from the combined sewer system immediately. The Oceanside, Southeast, and North Point Facility wastewater treatment plants should be held to the same standard.

Response: The Regional Water Board will consider similar requirements when it reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system.

Bachelor, Dunseth, and Hooper Comment 17: Provision VI.C.5.a.ix of the tentative order requires San Francisco to monitor all combined sewer discharges and sewer overflows from the combined sewer system, and determine their impacts and the efficacy of its controls. San Francisco should report its findings immediately to the authorities and the general public. The Oceanside, Southeast, and North Point Facility wastewater treatment plants should be held to the same standard.

Response: Provision VI.C.5.a.ix refers to Attachment E for specific monitoring and reporting requirements, including a requirement to submit monthly reports (see Attachment E section VIII), and new Provision VI.C.8 (Efficacy of Combined Sewer System Controls Special Study) (see our response to San Francisco Comment D.4). Attachment D section V and Attachment G section V impose additional reporting requirements. The Regional Water Board will consider similar requirements when it reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system.

Bachelor, Dunseth, and Hooper Comment 18: Every other discharger must adhere to a single permit. Only San Francisco gets to set its own rules.

Response: San Francisco does not set its own rules. San Francisco holds separate NPDES permits for its wastewater facilities on the west (ocean) and east (bay) sides of the city because these permits authorize discharges to different receiving waters with different water quality standards. Nevertheless, we strive for consistency when regulating these systems. When the Regional Water Board reissues the NPDES permit for the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system, it will consider the requirements of this permit.

BACHELOR

Bachelor Comment 1: Positive actions are needed to prevent another event like that at Cayuga Avenue and Rotteck Street on December 19, 2014. The resulting pollution and unsanitary conditions were deplorable. Water and sewage gushed more than 4 feet above manholes, flooding homes and backyards. The water volume for the event exceeded 1,000,000 gallons. The depth was as much as 4 feet. San Francisco has not proposed a long-term solution. It provides sandbags during the rainy season and cleans storm drains.

Response: The tentative order requires San Francisco to properly operate and maintain its facilities and to update its Long-Term Control Plan. See responses to Bachelor, Dunseth, and Hooper Comment 1.

Bachelor Comment 2: Someone should be responsible for analyzing the volumes of events like that of December 19, 2014. Then, San Francisco would know the magnitude of such events and develop corrective actions. San Francisco must solve this problem.

Response: Provision VI.C.5.a.ii(b) (formerly Provision VI.C.5.a.viii[b]) specifies reporting requirements for sewer overflows from the combined sewer system. San Francisco must notify the California Office of Emergency Services and provide requested information, such as the overflow location, the overflow volume and rate, and whether surface water affected. San Francisco must also report information, including the following, via the State Water Resources Control Board's (State Water Board's) CIWQS database: location; estimated volume, and method and data used to estimate the volume; start and end dates and times; causes; and corrective actions and schedule for completing the corrective actions (see our response to Comment A.9 and new Provision VI.C.5.a.ii[b] for the complete list of reporting requirements). If a sewer overflow from the combined sewer system is 50,000 gallons or greater, San Francisco must also submit a technical report that further explains the causes and circumstances, including the method and data used to calculate the volume, and lists response actions completed and planned.

GELINI

Gelini Comment 1: *San Francisco is a “self-monitoring reporter,” meaning it need not report excursions or sewer overflows from the combined sewer system. Hold San Francisco responsible for its sewer flooding, which is polluting my neighborhood. Make them report their sewer flooding to authorities and the public, and post notices appropriately.*

Response: In the context of this NPDES permit, “self-monitoring” does not mean San Francisco is not required to report sewer overflows; to the contrary, it means San Francisco is required to report information about its discharges, operations, and violations. See Attachment E, section VII.B and Attachment G section V.C. Provision VI.C.5.a.ii(b) (formerly Provision VI.C.5.a.viii[b]) requires San Francisco to report sewer overflows from the combined sewer system. See responses to Bachelor, Dunseth, and Hooper Comment 1 and Carrico and Others Comment 2.

Gelini Comment 2: *Infrastructure improvements are urgently needed near Cayuga Avenue. More than two hundred housing units have been proposed near the intersection of Cayuga and Ocean Avenues. Construction is underway at Mission Street and Silver Avenue. More units will be developed at 4840 Mission Street. All this will tax an already fragile and outdated sewer system.*

Response: Although U.S. EPA and the Regional Water Board have no role in land use decisions, we acknowledge that increased development or population density may increase demands on the sewer system. The tentative order requires San Francisco to evaluate control alternatives to minimize sewer overflows from the combined sewer system; such alternatives must take into account current conditions, including changes in land use and population density.

Gelini Comment 3: *Our neighborhood, especially along Cayuga Avenue, has suffered collateral damage from the construction of Interstate 280 in the 1950s and 1960s. The sewer system along Cayuga Avenue has suffered due to the construction of berms that press up against the pillars that support the freeway to ensure proper drainage for the freeway. Flooding and sewage backups extend to Alemany Boulevard at Folsom Street and the area under the intersection of Interstate 280 and Highway 101, where Alemany Boulevard and San Bruno Avenue meet. San Francisco left the community holding the bag; it did not advocate or protect its residents. U.S. EPA and the Regional Water Board must ensure that neighborhoods are protected from the consequences of large government projects. San Francisco needs to hold State and federal agencies accountable.*

Response: Although we acknowledge the frustration with these historical circumstances, at this time, we are considering the reissuance of an NPDES permit. As mentioned above, the tentative order requires San Francisco to update its Long-Term Control Plan and evaluate alternatives, including infrastructure improvements, to control combined sewer discharges and sewer overflows from the combined sewer system. We take these concerns seriously and are discussing

potential solutions with San Francisco. We continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance.

Gelini Comment 4: *U.S. EPA and the Regional Water Board’s new requirements, the “Nine Minimum Controls,” are an essential element in this permit.*

Response: See response to Bachelor, Dunseth, and Hooper Comment 5.

ART

Art Comment 1: *My auto shop is located at 17th and Folsom Streets. During the last 35 years, I have experienced sewer-related flooding a number of times. The sewer water entered my shop and damaged vehicles. The sewers under 17th Street are too small, and the streets have been incorrectly graded. Folsom Street acts like a dam, stopping water from flowing to the east and causing flooding. Repairs and upgrades to upstream sewers have intensified the problem. San Francisco has known about this problem for over 50 years. Its representatives say they plan to install a new large-diameter pipe going east, perhaps starting in 2022. I hope San Francisco makes good on its promise.*

Response: We acknowledge the frustration with these circumstances. As noted above, the tentative order requires San Francisco to evaluate alternatives, including infrastructure upgrades and improvements, to minimize combined sewer discharges and sewer overflows from the combined sewer system. We take these concerns seriously and are discussing potential solutions with San Francisco. We continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance.

TILTON

Tilton Comment 1: *Our house has been flooded with raw sewage numerous times due to San Francisco’s lack of proper infrastructure. With new buildings going up every day, this problem is getting worse. U.S. EPA and the Regional Water Board should hold San Francisco accountable for its non-compliance.*

Response: As stated in our response to Gelini Comment 2, U.S. EPA and the Regional Water Board do not have jurisdiction over land use or urban planning. The tentative order requires San Francisco to evaluate control alternatives to minimize sewer overflows from the combined sewer system; such alternatives must take into account the city’s current conditions, including changes in land use and population density. We take these concerns seriously and are discussing potential solutions with San Francisco. We continue to evaluate permit compliance and will pursue enforcement as necessary to achieve compliance.

CITY AND COUNTY OF SAN FRANCISCO

San Francisco submitted comments within four attachments. Attachment A is a tabular summary of its comments and contains requested edits to the tentative order. Attachment B contains comments related to the *Combined Sewer Overflow (CSO) Control Policy* and three specific permit requirements (i.e., the receiving water limitations; the regional standard provision regarding pollution, contamination, or nuisance; and the update to the Long-Term Control Plan). Attachment C contains comments related to sewer overflows from the combined sewer system. Attachment D contains comments related to combined sewer discharge monitoring. We numbered San Francisco's comments for clarity. Our responses to these comments are below and in Attachment 1.

A. Summary Table

San Francisco summarized its comments using a tabular format. We present our responses in Attachment 1 using a similar tabular format, re-numbering the original comments as Comments A.1 through A.58.

B. Combined Sewer Overflow (CSO) Control Policy

San Francisco Comment B.1. *San Francisco requests that the narrative permit terms in section V (Receiving Water Limitations) of the tentative order and Attachment G section I.I.1 be deleted, limited in scope, or properly applied to the facts. The terms are, respectively:*

Discharge shall not cause or contribute to a violation of any applicable water quality standard (with the exception set forth in State Water Board Order No. WQ 79-16) for receiving waters adopted by the Regional Water Board, State Water Resources Control Board (State Water Board), or U.S. EPA as required by the CWA and regulations adopted thereunder.

Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.

San Francisco states that these provisions are “contrary to law and unsupported by the available facts.” San Francisco also states that these terms “should be deleted from the permit because they are inconsistent with applicable law and introduce unnecessary uncertainty regarding ongoing compliance with the permit.” Specifically, San Francisco says these terms:

1. are “inconsistent with the NPDES permitting regulations, which require that applicable water quality standards be translated into permit effluent limitations,” citing *NRDC v. EPA* (4th Cir. 1993) 16 F.3d 1395 and *Am. Paper Inst. v. EPA* (D.C. Cir. 1993); 996 F.2d 346.
2. improperly “resurrect” causation as part of the NPDES permitting framework, citing *Friends of the Earth v. Gaston Copper Recycling Corp.* (4th Cir. 2000) 204 F.3d 149, 151, and *Piney Run Preservation Assn. v. County Comrs. of Carroll County* (4th Cir. 2001) 268 F.3d 255, 265.
3. “create uncertainty” and “to-be-determined liability.”

San Francisco asks whether receiving water limitations and water quality-based effluent limitations are different. It also argues that the reopener provisions serve the same purpose as the receiving water limitations by providing a means to revise the permit if information becomes available demonstrating that changes are needed to meet water quality standards.

Response: As explained below and in our responses to San Francisco Comments B.2 through B.5, section V of the tentative order and Attachment G section I.I.1 are supported by applicable law and available facts. These requirements are consistent with the Clean Water Act, the *Combined Sewer Overflow (CSO) Control Policy*, NPDES regulations, State water quality standards, and State law.²

The purpose of the receiving water limitations is described in Fact Sheet section V: “This Order’s receiving water limitations are based on Ocean Plan chapters II.C, II.D, and II.E, and State Water Board Order No. WQ 79-16. These limitations are necessary to ensure compliance with applicable water quality standards in accordance with the CWA and regulations adopted thereunder.”

The Clean Water Act defines “effluent limitation” as a “restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.” (33 U.S.C. § 1362(11)). Receiving water limitations are directly derived from the applicable water quality standards. (See our response to San Francisco Comment B.4) They are not prohibited by federal or State law: “broad permit requirements implementing water quality standards, not stated as effluent limitations, may be included in permits and are enforceable.” (State Water Board Order No. WQ-2002-0012, at p. 15 [*East Bay Municipal Utility District*]; see also State Water Board Resolution No. 2008-0025, at p. 3 [*Policy for Compliance Schedules in NPDES Permits*] [categorizing effluent limitations and receiving water limitations as different types of “permit limitations.”].) Compliance with receiving water limitations is determined with respect to the discharge’s effect on the receiving water, whereas compliance with effluent limitations is based on the quality of the effluent. (See State Water Board Order No. 2012-0011-DWQ [*NPDES Statewide Storm*

² The Regional Water Board addressed the applicability, appropriateness, and clarity of receiving water limitations during the reissuance of San Francisco’s NPDES permit for discharges from the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and Wastewater Collection System. See response to comments submitted as an attachment to San Francisco’s comments on this tentative order (pages 1040, 1044, and 1045).

Water Permit for the State of Cal. Dept. of Transportation], as amended by State Water Board Order WQ 2014-0077-DWQ [both orders imposing BMP-based iterative approach to complying with receiving water limitations]; see also State Water Board Order No. 2004-0013-DWQ, at p. 13 [*Yuba City*] [concentration-based effluent limitation and receiving water limitation for pH will together achieve water quality objective in Feather River.]

Contrary to San Francisco’s assertion, the causal link between discharges and receiving water quality is properly considered in the NPDES permitting scheme. See *Piney Run Preservation Assn. v. County Comrs. of Carroll County*, *supra*, 268 F.3d at p. 265-266 (“[D]espite the CWA’s shift in focus of environmental regulation towards the discharge of pollutants, water quality standards still have an important role in the CWA regulatory scheme.”); *Ohio Valley Environmental Coalition v. Fola Coal Co.* (4th Cir. 2017) 845 F.3d 133, 143 (states may incorporate water quality standards into NPDES permit terms). The Clean Water Act requires NPDES permits to include conditions ensuring that discharges comply with its substantive provisions (33 U.S.C. § 1342(a)(2)), including limitations “necessary to meet [state] water quality standards.” *Id.* § 1311(b)(1)(C). NPDES permits must include requirements necessary to achieve water quality standards established under Clean Water Act section 303; such requirements can be narrative and need not be in the form of effluent limitations. 40 C.F.R. § 122.44(d)(1); see also *Id.* § 122.4(d) (permits must “ensure compliance with the applicable water quality requirements of all affected States.”); 54 Fed. Reg. 23868, 23875 (June 2, 1989) (“Narrative water quality criteria have the same force of law as other water quality criteria”). Moreover, the *Combined Sewer Overflow (CSO) Control Policy* states that, initially, permits should require compliance “with applicable water quality standards expressed in the form of narrative limitations.” 59 Fed. Reg. 18688, 18696 (April 19, 1994) (*Combined Sewer Overflow Control Policy*). U.S. EPA’s *CSO Guidance for Permit Writers* also states that, in addition to performance standards, the permit writer should include narrative permit language providing for the attainment of applicable water quality standards. (EPA 832-B-95-008, page 4-27).

As explained in Fact Sheet sections III.C.1 and III.C.2, the applicable water quality standards are found in the California Ocean Plan (Ocean Plan), the Water Quality Control Plan for San Francisco Bay Basin (Basin Plan), and State Water Board Order No. WQ 79-16. Ocean Plan chapter I (Beneficial Uses) and chapter II (Water Quality Objectives) and Basin Plan chapter 2 (Beneficial Uses) and chapter 3 (Water Quality Objectives) section 3.2 apply to combined sewer discharges. Pursuant to State Water Board Order No. WQ 79-16, wet weather discharges from the diversion structures are excepted from compliance with the Ocean Plan’s bacteria water quality objectives, while the remaining water quality standards apply to the greatest extent practical.

The permitting authority has discretion in translating water quality standards into permit limitations. See *City of Taunton, Massachusetts v. EPA* (1st Cir. 2018) 895 F.3d 120, 126, 133. Thus, while San Francisco may prefer more specificity in the receiving water limitations, U.S. EPA and the Regional Water Board have not failed to translate applicable water quality standards into the permit terms. San Francisco’s reliance on *NRDC v. EPA*, *supra*, 16 F.3d 1395, *Am. Paper Inst. v. EPA*, *supra*, 996 F.2d 346, and *Piney Run Preservation Assn. v. County Comrs. of Carroll County*, *supra*, 268 F.3d at p. 265 is not pertinent. See *Ohio Valley Environmental Coalition v. Fola Coal Co.*, *supra*, 845 F.3d at p. 143 (“Nothing in *Piney*

Run forbids a state from incorporating water quality standards into the terms of its NPDES permits.”)

Courts have upheld and found narrative water quality standards to be enforceable. See *Ohio Valley Environmental Coalition v. Fola Coal Co.*, *supra*, 845 F.3d at pp. 142-143 (explaining that, in the Court’s *Piney Run* decision, the Court “did not hold that numerical limitations on specific pollutant discharges constituted the only proper subject of regulation under the Clean Water Act. Rather, we noted that, despite the Clean Water Act’s “shift in focus of environmental regulation towards the discharge of pollutants, water quality standards still have an important role in the [Clean Water Act’s] regulatory scheme.”)(emphasis in original); *PUD No. 1 of Jefferson County v. Wash. Dept. of Ecology* (1994) 511 U.S. 700, 716 (“The Act permits enforcement of broad, narrative criteria”); *NRDC v. County of Los Angeles* (9th Cir. 2013) 725 F.3d 1194, 1205-06 (enforcing California permit requirement prohibiting “discharges...that cause or contribute to the violation of the Water Quality Standards or water quality objectives”); *Northwest Environmental Advocates v. City of Portland* (9th Cir. 1995) 56 F.3d 979, 985-986 (enforcing Oregon permit condition that “no wastes shall be discharged and no activities shall be conducted which will violate water quality standards”). See also *Divers’ Environmental Conservation Organization v. State Water Resources Control Bd.* (2006) 145 Cal.App.4th 246, 256-257; *County of Los Angeles v. State Water Resources Control Bd.* (2006) 143 Cal.App.4th 985, 992-993.

Regarding Attachment G section I.I.1, Water Code section 13263(a) directs the Regional Water Board to prescribe requirements that implement relevant water quality control plans and take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241. This tentative order is intended to serve as waste discharge requirements under State law and complies with Water Code section 13263(a) by requiring that neither the treatment nor the discharge of pollutants may create pollution, contamination, or nuisance. Water Code section 13050 defines “pollution,” “contamination,” and “nuisance.”

The Regional Water Board has included the provision in Attachment G section I.I.1 in nearly all individual NPDES permits since at least 1993. When the Regional Water Board most recently updated its Regional Standard Provisions through Order No. R2-2017-0042, it retained this provision. The Fact Sheet for that order explained, “NPDES wastewater permits contain standard provisions that define terms, specify general sampling and analytical protocols, and set forth requirements for reporting spills, violations, and routine monitoring data. Federal regulations require some of these standard provisions. Others are region-specific requirements. The regional standard provisions ensure permit compliance through preventative planning; monitoring; recordkeeping; reporting; and review, characterization, and response to problems encountered. Individual NPDES permits contain the federal standard provisions as Attachment D and the regional standard provisions as Attachment G.”

Permit terms similar to those in section V and Attachment G section I.I.1 are frequently used in NPDES permits for publicly owned treatment works issued by the Regional Water Board (e.g., Sonoma Valley County Sanitation District, Order No. R2-2019-0019, and cities of South San Francisco and San Bruno and North Bayside System Unit, Order No. R2-2019-0021).

Similar language is used in NPDES permits for discharges from combined sewer systems issued by U.S. EPA and other permitting authorities (e.g., City of Sacramento, NPDES Permit No. CA0079111; City of Holyoke, NPDES Permit No. MA0101630; MA Water Resources Authority, NPDES Permit No. MA0103284; and City of Hartford, NPDES Permit No. CT010021). See also U.S. EPA's 2015 Multi-Sector General Permit (Part 2.2.1). Similar language is also used in other NPDES permits for discharges to the marine waters (e.g., Massachusetts Port Authority and Logan International Airport, NPDES Permit No. MA0000788, and Department of the Navy Puget Sound Naval Shipyard, NPDES Permit No. WA0002062) because, pursuant to Clean Water Act section 403, these terms ensure that discharges do not cause unreasonable degradation to marine waters.

San Francisco Comment B.2: *San Francisco requests that section V of the tentative order and Attachment G section I.I.1 apply only to dry weather discharges because there are already wet weather-specific water quality-based effluent limitations for the combined sewer discharges.*

Response: We disagree that these permit terms should be limited to dry weather. The Ocean Plan (with the exception set forth in State Water Board Order No. WQ 79-16) applies during both wet and dry weather. Therefore, the tentative order contains both dry and wet weather water quality-based effluent limitations, as well as receiving water limitations stating, "Discharge shall not cause or contribute to a violation of any applicable water quality standard (with the exception set forth in State Water Board Order No. WQ 79-16)...." By citing State Water Board Order No. WQ 79-16, the receiving water limitations clarify that San Francisco's discharges must comply with Ocean Plan water quality objectives, except for bacteria, to the extent practical during wet weather.

San Francisco Comment B.3: *San Francisco requests confirmation that section IV.B of the tentative order sets forth water quality-based effluent limitations for combined sewer discharges from Discharge Point Nos. CSD-001 through CSD-007 as the long-term control plan provisions of Provision VI.C.5.c. San Francisco asks that section IV.B be revised as follows: "During wet weather, the Discharger shall comply with the narrative water-quality based effluent limitations contained in Provision VI.C.5.c (Long-Term Control Plan) for the Discharge Points in Table 2."* San Francisco also requests a corresponding revision to Fact Sheet section IV.C.1.

Response: We agree that this section sets forth water-quality based effluent limitations for the Discharge Points in Table 2. See our responses to San Francisco Comments A.3, A.54, and B.4.

San Francisco Comment B.4: *San Francisco requests that we revise Fact Sheet section IV.C.5.b to clarify that the requirements of Provision VI.C.5.c are the water quality-based effluent limitations that apply during wet weather and that compliance with the long-term control plan requirements of Provision VI.C.5.c will result in attainment of applicable water quality standards.*

Response: We disagree. The requirements in Provision VI.C.5.c are not the only permit limitations with which San Francisco is required to comply during wet weather. As shown in our response to San Francisco Comment A.3, we revised the tentative order to clarify that the receiving water limitations in section V are also applicable.

While we agree that the long-term control plan requirements in Provision VI.C.5.c are designed to ensure attainment of applicable water quality standards, compliance with these requirements in isolation will not necessarily achieve water quality standards. For this reason, compliance with receiving water limitations is also required. Consistent with the *Combined Sewer Overflow (CSO) Control Policy*, the tentative order requires post-construction compliance monitoring to verify compliance with water quality standards and protection of designated uses as well as ascertain the effectiveness of CSO controls. 59 Fed. Reg. 18688, 18694. The *Combined Sewer Overflow (CSO) Control Policy* contemplates that water quality standards might not be attained after implementing long-term control plans: “The selected controls should be designed to allow cost effective expansion or cost effective retrofitting if additional controls are subsequently determined to be necessary to meet water quality standards, including existing and designated uses.” *Id.* at 18691. “If after monitoring, it is determined that water quality standards are not being attained, the permittee should be required to submit a revised [combined sewer overflow] control plan that once implemented will attain water quality standards.” *Id.* at 18690.

San Francisco cites *City of Moscow, Idaho* (2001) 10 E.A.D. 135, for the proposition that “[w]ater quality-based effluent limits . . . are designed to ensure that the applicable state water quality standards are met.”). While we do not disagree with this assertion, we note that this case does not involve the *Combined Sewer Overflow (CSO) Control Policy* or a long-term control plan.

San Francisco Comment B.5: *San Francisco asks that we add a finding that its combined sewer discharges comply with section V of the tentative order and Attachment G section I.I.1 because:*

- 1. a permit cannot be issued for activities inconsistent with the Clean Water Act; and*
- 2. failure to include such a finding deviates from previous permits.*

Specifically, San Francisco states that “the permit must include a finding that the frequency and volume of the [combined sewer discharges], especially in the context of bacteria, are in compliance with [permit terms V and G.I.I.1] because the current frequency and volume of the [combined sewer discharges] do not impair uses.” San Francisco also states that “the Regional Board and EPA made a finding that eight (8) [combined sewer discharges] would protect beneficial uses” in State Water Board Order No. WQ 79-16.

Response: We do not make compliance determinations through NPDES permits. The tentative order does not authorize activities inconsistent with the Clean Water Act, and NPDES regulations do not require that a discharger be in compliance with a permit before the permit is reissued. In fact, the *Combined Sewer Overflow (CSO) Control Policy* contemplates that, even after completion of construction, some municipalities may not comply with water quality standards (see our response to San Francisco Comment B.4). State Water Board Order No. WQ 79-16 is part of the applicable water quality standards. While the State Water Board made particular assumptions about the frequency of combined sewer discharges when it adopted Order No. WQ 79-16 nearly four decades ago, these assumptions may not ensure protection of beneficial uses today. For this reason, we now use post-construction compliance monitoring to verify compliance with water quality standards and protection of beneficial uses.

We disagree that “the Regional Board and EPA made a finding that eight (8) [combined sewer discharges] would protect beneficial uses” in State Water Board Order No. WQ 79-16. The Order states:

Excepting an average of eight overflows per year, the discharge shall design and construct facilities that will contain all other stormwater runoff. The discharge of all other untreated waste to waters of the state is prohibited. (Section III.5, page 18).

We disagree that the design standard of eight combined sewer discharges based on a long-term average establishes a permit condition that ensures compliance with water quality standards. The past NPDES permits have not established a frequency-based permit requirement (i.e. no more than eight combined sewer discharges per year) but instead include a requirement to capture for treatment, or storage and subsequent treatment, 100 percent of the combined wastewater and stormwater flow. This requirement is consistent with State Water Board Order No. WQ 79-16 and previous permits. The permit requirement is capture of 100 percent of the combined wastewater and stormwater flow, not eight combined sewer discharges per year, which would be difficult to enforce as the 1979 Order does not define “typical year” or a long-term average. Given the uncertainty as to those terms, it is not possible to assert that eight combined sewer discharges per year result in protection of beneficial uses.

San Francisco Comment B.6: *San Francisco requests confirmation that the receiving waters associated with Discharge Point Nos. CSD-001 through CSD-007 are not impaired by bacteria and that we revise Fact Sheet section III.D to say so.*

Response: We confirm that the receiving waters associated with Discharge Point Nos. CSD-001 through CSD-007 are not impaired by any pollutant, including bacteria. Fact Sheet section III.D already says, “This Order does not authorize any discharge to receiving waters on California’s list of impaired waters.” Therefore, no additional finding is needed.

San Francisco Comment B.7: *San Francisco asserts that the requirement to update its long-term control plan is contrary to law and unsupported by available facts and prior agency findings. San Francisco requests that the Regional Water Board and U.S. EPA identify the federal and State statutory and regulatory legal authorities for each task and sub-task in Table 7 of the tentative order, saying the terms in Table 7 are vague and fail to provide fair notice to San Francisco regarding what is specifically required. San Francisco requests an explanation of the requirements in light of prior findings that San Francisco is exempt from most of the planning and construction requirements in the Combined Sewer Overflow (CSO) Control Policy associated with the long-term control plan.*

Response: We disagree that the requirement for San Francisco to update its long-term control plan lacks a legal basis. As explained in Fact Sheet section VI.C.5.d, there are several bases for the requirement, including but not limited to sections IV.B.2.b., IV.B.2.d., IV.B.2.e., and IV.B.2.f. of the *Combined Sewer Overflow (CSO) Control Policy* (“Phase II Permits-Requirements for Implementation of a Long-Term CSO Control Plan”); State Water Board Order No. WQ 79-16; 40 C.F.R. section 122.44(d); and 40 C.F.R. section 125.122. Moreover, the requirement is consistent with U.S. EPA’s *Combined Sewer Overflows, Guidance for Long-Term*

Control Plan (EPA 832-B-95-002, September 1995). U.S. EPA has also required long-term control plan updates in consent decrees for other combined sewer systems. See 68 Fed. Reg. 68651-01 (Dec. 9, 2003) [requiring Hamilton County and City of Cincinnati to update LTCP and implement comprehensive “basement backup” program to avoid sewage overflows into basements]). These bases provide the legal justification for the tasks and sub-tasks listed in Table 7.

We also disagree that the requirement is unsupported by available facts. The *Combined Sewer Overflow (CSO) Control Policy* (section I.C) recognized that some permittees had already completed or substantially completed construction of combined sewer overflow control facilities so initial planning and construction provisions would not apply to all dischargers. 59 Fed. Reg. 18688, 18690. San Francisco was very close to completing its facilities when the *Combined Sewer Overflow (CSO) Control Policy* was issued in 1994. Provision VI.C.5.d of the tentative order reflects this when it allows San Francisco to “use previously completed studies to the extent that they accurately provide the required information.”

While San Francisco has provided many documents over the years, determining which constitute its current long-term control plan and which are outdated is difficult. Furthermore, the facilities have changed since constructed in 1997, and additional changes are underway or planned for the near future.³ In light of these facts, the requirement to update the long-term control plan focuses on “Post-Construction Characterization, Monitoring, and Modeling of the Combined Sewer System” (task 1), “Public Participation” (task 2), “Consideration of Sensitive Areas” (task 3), “Operational Plan” (task 4), and “Post-construction Compliance Monitoring Program” (task 5). Further, the *Combined Sewer Overflow (CSO) Control Policy* requires programs to be reviewed and modified consistent with the policy’s sensitive area, financial capability, and post-construction monitoring provisions.

The *Combined Sewer Overflow (CSO) Control Policy* does not exempt San Francisco from planning requirements in perpetuity. Table 7 requires San Francisco to complete a sensitive area analysis that evaluates, prioritizes, and proposes control alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges to sensitive areas. As a result, it may be necessary for San Francisco to revisit some of the planning it initially undertook and construct improvements consistent with San Francisco’s updated long-term control plan.

We disagree that Table 7 is vague. The tasks in Table 7 are detailed and concrete, although they also provide flexibility for San Francisco to determine the precise means of compliance. The tasks are consistent with the *Combined Sewer Overflow (CSO) Control Policy*, U.S. EPA’s guidance document *Combined Sewer Overflows, Guidance for Long-Term Control Plan* (EPA 832-B-95-002), and San Francisco’s most recent planning efforts (e.g., Sewer System Improvement Program and the 2010 master planning efforts). Lastly, by distributing the tentative order for public comment, we provided San Francisco fair notice of our expectations, and San Francisco has availed itself of its opportunity to comment.

San Francisco Comment B.8: *San Francisco requests that the Regional Water Board and U.S. EPA confirm that the applicable legal framework for the long-term control plan update is a*

³ For instance, San Francisco currently discharges out of seven combined sewer discharge outfalls, not eight.

sensitive areas analysis consistent with section II.2.C.3 of the Combined Sewer Overflow (CSO) Control Policy.

Response: We agree, in part. See our response to San Francisco Comment B.7. The long-term control plan update described in Table 7 of the tentative order is, in part, due to the ongoing need to assess impacts to sensitive areas. See 59 Fed. Reg. 18688, 18692. The *Combined Sewer Overflow (CSO) Control Policy* states that the re-assessment should be based on consideration of new or improved techniques to reduce, eliminate, or relocate flows, or changed circumstances that influence economic achievability. *Id.* at 18692 and 18696. These techniques are included in Table 7 of the tentative order.

The *Combined Sewer Overflow (CSO) Control Policy* (section II.C.3) also says any discharges to sensitive areas that are not eliminated or relocated should receive the level of treatment needed to meet water quality standards. The applicable water quality standards include State Water Board Order No. WQ 79-16, which requires that San Francisco’s combined sewer discharges achieve the Ocean Plan objectives to the “greatest extent practical,” with the exception of the bacteria objectives. See also our response to San Francisco Comments A.23 through A.27. Therefore, the requirement concerning the “sensitive areas assessment” is consistent both the with the *Combined Sewer Overflow (CSO) Control Policy* and 1979 Order.

San Francisco Comment B.9: *San Francisco comments that, as currently drafted, Provision VI.C.5.d of the tentative order (including Table 7) assumes San Francisco will propose alternative control measures to eliminate or relocate combined sewer discharges. San Francisco asks that this assumption be removed, saying that presupposing the outcome of yet-to-be-performed analyses is inappropriate.*

Response: The Regional Water Board and U.S. EPA have not assumed that San Francisco will propose improvements to its system, nor have we predicted which improvements can be made. San Francisco must analyze potential alternatives before deciding whether or which improvements must be made. However, since decades have passed since San Francisco constructed most of its wet weather facilities, we find it unlikely that no improvement can be made. While eliminating or relocating some combined sewer discharges to sensitive areas may be a possible outcome of San Francisco’s analysis, a more likely scenario is that San Francisco will identify ways to minimize (e.g., reduce frequency or magnitude) combined sewer discharges and maximize pollutant removal during wet weather.

Consistent with the goal to reduce impacts to sensitive areas, the primary objectives of the long-term control plan update include but are not limited to the following:

1. Ensure that water quality objectives during wet weather are met to the greatest extent practical, consistent with State Water Board Order No. WQ 79-16;
2. Ensure that the receiving water designated uses are protected;
3. Reduce risks to human health and the environment associated with combined sewer discharges;
4. Evaluate a range of control alternatives that further reduce discharges to sensitive areas (i.e. Discharge Points Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007); and

5. Provide for adaptive management of the combined sewer system.

San Francisco Comment B.10: *San Francisco requests confirmation that “elimination” of combined sewer discharges means separating the combined sewer system into separate sanitary and storm sewer systems, or that we explain the term “elimination.”*

Response: “Elimination” in the context of the assessment helps describe the scope of alternatives to be considered, including separation. However, the assessment also envisions other approaches are possible, such as increasing storage and expanding treatment. As San Francisco points out, a sensitive areas analysis must determine whether it is physically possible and economically achievable to eliminate or relocate combined sewer discharges to sensitive areas. San Francisco may find that it can reduce but not eliminate combined sewer discharges, or that it can eliminate some combined sewer discharges but not others.

San Francisco Comment B.11: *San Francisco requests that the Regional Water Board and U.S. EPA identify receiving waters they believe are sensitive areas and the factual basis for that determination. If the Regional Water Board and U.S. EPA identify all receiving waters as sensitive areas, San Francisco requests an explanation regarding how it could “relocate” combined sewer discharges from sensitive areas.*

Response: According to the *Combined Sewer Overflow (CSO) Control Policy*, sensitive areas include Outstanding National Resource Waters; National Marine Sanctuaries; waters with threatened or endangered species or their designated critical habitat; primary contact recreation waters, such as bathing beaches, public drinking water intakes, or their designated protection areas; and shellfish beds. Discharge Point Nos. CSD-001 through CSD-007 discharge to primary contact recreation waters and waters with threatened or endangered species, including critical habitat for the green sturgeon.

San Francisco’s past sensitive areas assessments have found it infeasible to eliminate or relocate Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007 (San Francisco did not discuss options for Discharge Point No. CSD-004). However, San Francisco’s recent *Westside Drainage Basin Urban Watershed Opportunities Technical Memorandum* (February 2015) evaluates the feasibility of reducing combined sewer discharges at public beaches, including eliminating discharges at Baker Beach and China Beach during a “typical year.”

San Francisco Comment B.12: *San Francisco commented that there is no statutory or regulatory basis to mandate San Francisco to “reduce” combined sewer discharges, especially if simply for the sake of reduction, because such a requirement is not tied to what is necessary to protect beneficial uses.*

Response: The tentative order does not require San Francisco to minimize (e.g., reduce frequency or magnitude) combined sewer discharges and maximize pollutant removal during wet weather simply for the sake of reduction, but rather to ensure protection of beneficial uses. The combined sewer discharges occur at Ocean Beach (Discharge Point Nos. CSD-001, CSD-002, and CSD-003), China Beach (Discharge Point No. CSD-005), and Baker Beach (Discharge Point

Nos. CSD-006 and CSD-007), which are popular recreation areas used by the community and tourists throughout the year. San Francisco has reported the following:

1. Approximately 100 million gallons of combined wastewater and stormwater were discharged from the combined sewer discharge outfalls between 2011 and 2014 (2014 *Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, page 1-4).
2. From 2008 to 2014, recreational use surveys after combined sewer discharges documented that 20 percent of users were in contact with receiving water (2014 *Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, Table 3-3, page 3-14).
3. From July 2012 through June 2013, 56 of 468 samples collected at the ten shoreline receiving water monitoring locations exceeded a single-sample maximum water quality objective for at least one bacteria indicator (i.e., *E. coli*, total coliform, or *Enterococcus*) and resulted in the posting of warning or no swimming signs at beaches for 27 days; 39 of the 56 elevated samples (i.e., 70 percent of the elevated samples) and 17 of the posting days were associated with a combined sewer discharge event (2014 *Southwest Ocean Outfall Regional Monitoring Program Sixteen-Year Summary Report 1997 – 2012*, pages 3-7, 3-13).⁴
4. While the applicable water quality standards apply in the receiving waters, data from 2004 to 2014 show that pollutant concentrations in combined sewer discharges exceed water quality objectives. For example, the average copper and zinc concentrations are 29 µg/L and 118 µg/L, with maximum concentrations of 59 µg/L and 274 µg/L (2014 *Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, Appendix A).

Given these facts, it is appropriate to assess ways to reduce the volume, frequency, and magnitude of the combined sewer discharges to sensitive areas to better protect beneficial uses, as discussed further in our response to San Francisco Comment B.9. Regarding legal authorities, see our response to San Francisco Comment B.7.

San Francisco Comment B.13: *San Francisco commented that it cannot assess alternative controls to protect uses without knowing what it means to protect uses. San Francisco requests that the Regional Water Board and U.S. EPA confirm that State Water Board Order No. WQ 79-16 establishes the meaning of protecting beneficial uses. San Francisco concludes that, absent re-defining through appropriate administrative action what it means to protect uses, San Francisco will not know what reduction alternative would protect beneficial uses.*

⁴ As of February 4, 2019, the Ocean Plan contains water quality objectives for water contact recreation for the following two bacteriological indicators:

- **Fecal Coliform:** 30-day geometric mean of fecal coliform density not to exceed 200 per 100 milliliters (mL) and single-sample maximum not to exceed 400 per 100 mL.
- **Enterococci:** Six-week rolling geometric mean of enterococci not to exceed 30 colony forming units (cfu) per 100 mL, calculated weekly, and statistical threshold value of 110 cfu/100 mL not to be exceeded by more than 10 percent of samples collected in a calendar month, calculated in a static manner.

Response: The overarching regulatory context in which San Francisco operates its combined sewer system is unchanged: the Basin Plan, the Ocean Plan, and State Water Board Order No. WQ 79-16 set forth applicable water quality standards, including beneficial uses and water quality objectives to protect beneficial uses (see Fact Sheet sections III.C.1 and III.C.2). To protect beneficial uses during wet weather, State Water Board Order No. WQ 79-16 requires San Francisco to design, construct, and operate facilities to conform to the standards (except for bacteriological standards) set forth in chapters II⁵ and III⁶ of the 1978 Ocean Plan to the greatest extent practical and satisfy other conditions.

Throughout Attachment B comments, San Francisco raises the issue of how State Water Board Order No. WQ 79-16 should be interpreted and whether it establishes the meaning of protecting beneficial uses. State Water Board Order No. WQ 79-16 is described on pages F-11 and F-12 of the tentative order. The Order contemplates progress towards attaining designated uses and water quality objectives, except for bacteria. Specifically, it requires that “to the greatest extent practical,” the Discharger designs, constructs, and operates facilities to conform to the remaining standards set forth in chapter II⁷, except for bacteriological standards, and chapter III⁸ of the 1978 Ocean Plan.

We interpret State Water Board Order No. WQ 79-16 to mean that, other than the bacteriological standards, San Francisco must meet the Ocean Plan standards to “the greatest extent practical.” See our response to San Francisco Comment B.1. Accordingly, the tentative order imposes conditions on combined sewer discharges, including but not limited to in Provision VI.C.5.c (Long-Term Control Plan) and section V (Receiving Water limitations) of the tentative order; Attachment E Table E-6 (now Table E-7); and Attachment G section I.I.1.

We note that there are administrative actions that address water quality standards, such as a use attainability analysis, variances, and site specific standards. (40 C.F.R. §§ 131.10, 131.14, and 131.20.) San Francisco may determine that exploring these options will give it more certainty. For this permit issuance, State Water Board Order No. WQ 79-16 applies.

⁵ Chapter II of the 1978 California Ocean Plan related to physical characteristics (i.e., floating particulates, discoloration, natural light, and inert solids deposition), chemical characteristics (i.e., dissolved oxygen, pH, dissolved sulfide, toxic and organic chemicals in marine sediments, and nutrients), biological characteristics (i.e., marine communities and taste, odor, and color of marine resources used for human consumption), and radioactivity.

⁶ Chapter III of the 1978 California Ocean Plan required that indigenous marine life and a healthy and diverse marine community be maintained and that discharges be essentially free of floatable and settleable material, toxics in water or sediment, substances that significantly decrease natural light, and materials that result in esthetically undesirable discoloration of the ocean surface.

⁷ Chapter II of the 1978 California Ocean Plan related to physical characteristics (i.e., floating particulates, discoloration, natural light, and inert solids deposition), chemical characteristics (i.e., dissolved oxygen, pH, dissolved sulfide, toxic and organic chemicals in marine sediments, and nutrients), biological characteristics (i.e., marine communities and taste, odor, and color of marine resources used for human consumption), and radioactivity.

⁸ Chapter III of the 1978 California Ocean Plan required that indigenous marine life and a healthy and diverse marine community be maintained and that discharges be essentially free of floatable and settleable material, toxics in water or sediment, substances that significantly decrease natural light, and materials that result in esthetically undesirable discoloration of the ocean surface.

C. Sewer Overflows from Combined Sewer System

San Francisco Comment C.1: *San Francisco recognizes U.S. EPA and the Regional Water Board’s interest in including monitoring and reporting requirements for sewer overflows from the combined sewer system in this permit, and says it is prepared to develop a workable framework for reporting such overflows associated with operation, maintenance, or other combined sewer system failures, and uploading reportable data to the California Integrated Water Quality System (CIWQS).*

Response: We acknowledge San Francisco’s willingness to monitor and report sewer overflows from the combined sewer system associated with operation, maintenance, and other combined sewer system failures. However, we also retained monitoring and reporting requirements for sewer overflows from the combined sewer system caused by capacity constraints. See our response to San Francisco Comment C.3.

San Francisco Comment C.2: *The monitoring and reporting requirements for sewer overflows from the combined sewer system need to be laid out in the permit (as opposed to incorporated by reference). Monitoring and reporting terms must be developed with specific consideration of the nature of San Francisco’s system (i.e., a combined sewer system as opposed to a sanitary sewer system).*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order as indicated in our response to Comment A.9 to avoid incorporating any requirements by reference. The proposed requirements reflect the nature of San Francisco’s combined sewer system. See our responses to San Francisco Comments C.3 and C.14, below.

San Francisco Comment C.3: *A reasonable reporting approach will not impose a burdensome and unnecessary requirement to report sewer overflows from the combined sewer system resulting solely from storms that exceed the combined sewer system’s level of service.*

Response: Monitoring and reporting sewer overflows from the combined sewer system—including overflows that result from storms that exceed the combined sewer system’s capacity—are necessary because understanding the causes of overflows is vital to determining whether and what corrective actions might be appropriate. As San Francisco indicates in Comment A.16, the frequency, cause, and location of sewer overflows from the combined sewer system are useful metrics to evaluate the effectiveness of collection system operations and maintenance. In fact, without such monitoring and reporting, determining whether a particular sewer overflow from the combined sewer system arises solely from capacity constraints would be difficult, if not impossible, particularly when dealing with a collection system as old and complex as San Francisco’s collection system.

Failing to monitor and report some overflows would hamper efforts to evaluate implementation of the Nine Minimum Controls and ensure permit compliance. (See *Borough of Upper Saddle River, N.J. v. Rockland County Sewer Dist. No. 1* (S.D.N.Y. 2014) 16 F.Supp.3d 294, 319-320

(some sewer overflows were violations of Clean Water Act). Overflow data are needed for many reasons, including to determine the following:

- whether San Francisco’s operations and maintenance activities are adequate (*Combined Sewer Overflows Guidance for Nine Minimum Controls* [May 1995] [NMC Guidance], at pp. 2-3 – 2-4; EPA, *Report to Congress: Impacts and Control of CSOs and SSOs* [Aug. 2004] [2004 Report to Congress]),
- whether measures to maximize storage within the collection system are functioning properly (see NMC Guidance., at pp.3-2 - 3-4; 2004 Report to Congress at pp. 8-12, STR-2; see also *Foti v. City of Jamestown Bd. of Pub. Util.s* (W.D.N.Y. Aug. 5, 2014) 2014 WL 3842376, at p. *1 [sewer overflows into basements could provide evidence that collection system “may have been inadequate as originally designed”]),
- whether flows to the treatment works have been maximized without causing sewer backups (see NMC Guidance, at 5-2, 5-3; 2004 Report to Congress, at pp. 8-6, CSC-2 – CSC-4, CSC-11),
- whether dry weather overflows are being controlled (see NMC Guidance, at pp. 6-2 - 6-3),
- whether actions to minimize floatables are not causing backups (see NMC Guidance, at pp. 7-3, 7-8 – 7-10, 7-14), and
- whether pollution prevention activities (e.g., fats, oil, and grease programs and antilittering campaigns) are effective (see NMC Guidance, at pp. 8-1 – 8-3; 2004 Report to Congress, p. O&M-14).

Monitoring and reporting sewer overflows from the combined sewer system are also necessary to determine whether an overflow reaches waters of the State or United States. See *San Francisco Baykeeper v. W. Bay Sanitary Dist.* (N.D.2011) 791 F.Supp.2d 719, 753-755 (determination of which sanitary sewer overflows reached waters of the United States was factually complex and often made on the basis of self-reporting); *Borough of Upper Saddle River, N.J. v. Rockland County Sewer Dist. No. 1, supra*, 16 F.Supp.3d at p. 305 (occurrence of sewer backups and spills determined by eyewitness accounts and internal reports).⁹ Excluding capacity-related overflows from monitoring and reporting requirements would also risk under-reporting problems in areas with known capacity constraints and arguably the most need for collection system rehabilitation. See *United States v. Wayne County* (6th Cir.2004) 369 F.3d 508, 514 (sewer backups into basements were directly related to storm-related exceedance of collection system capacity and a major driver of system upgrades and repairs).

San Francisco Comment C.4: *The proposed requirements addressing sewer overflows from the combined sewer system are unworkable, ambiguous, inconsistent with applicable law, and confusing. They are based on an inapplicable technical and legal framework because they incorporate terminology developed and applicable to separate sanitary sewer systems.*

⁹ Even if a sewer overflow from the combined sewer system does not threaten to discharge into waters of the United States, it may threaten to discharge into waters of the State (i.e., groundwater) in violation of Water Code sections 13304 and 13260. The Regional Water Board has not issued Waste Discharge Requirements that authorize such discharges.

Response: We disagree that the proposed monitoring and reporting requirements are unworkable, ambiguous, inconsistent with applicable law, or confusing (see our responses to San Francisco Comments C.9 through C.15). The technical and legal framework for sanitary sewer overflows (from separate sanitary sewer systems) are not so different than those for sewer overflows from the combined sewer system that they cannot share terminology. We revised Provision VI.C.5.a.viii(b) of the tentative order as indicated in our response to Comment A.9 to delete language incorporating by reference any provision of State Water Board Order No. 2006-0003-DWQ.

***San Francisco Comment C.5:** The definition of sewer overflows from the combined sewer system in Attachment A of the tentative order should be revised to exclude sewer overflows from the combined sewer system occurring as a result of storms exceeding the system's level of service (i.e., when the design capacity of the system has been exceeded).*

Response: We disagree. As explained in our response to San Francisco Comment C.3, limiting the definition as suggested would deprive U.S. EPA, the Regional Water Board, and the public of information needed to evaluate the sufficiency of San Francisco's system as designed and constructed.

***San Francisco Comment C.6:** There is no material benefit in collecting data on sewer overflows from the combined sewer system that occur as a result of storms exceeding the system's level of service because it is known in advance that they will occur.*

Response: We disagree. Although we may know that certain storms will exceed the collection system's capacity, without monitoring and reporting we cannot know the frequency or severity of such events (and cannot evaluate the accuracy of any models used to predict the frequency or severity of such events). Frequent sewer overflows from the combined sewer system of sufficient volume to backup into homes and businesses may be evidence that capacity improvements are needed. See *Borough of Upper Saddle River, N.J. v. Rockland County Sewer Dist. No. 1, supra*, 16 F.Supp.3d at p.333 (more evidence necessary to determine whether prior consent decrees had been implemented and whether further injunctive relief was appropriate for recurrent sewage overflows); *Foti v. City of Jamestown Board of Public Utilities, supra*, 2014 WL 3842376, at p. *10 (system maps, reports, and other data would inform argument that sewer overflows into basements were due to system design flaws); and Wayne County Metropolitan Water Reclamation District Consent Decree, Case No. 1:11-cv-08859 (Dec. 11, 2011), Appx. A, p. 2 (Tunnel and Reservoir Plan requiring capacity expansion chosen as Long-Term Control Plan in part because it would also reduce basement flooding). As explained in our response to San Francisco Comment C.3, the benefits of monitoring and reporting of sewer overflows from the combined sewer system include providing a means to evaluate compliance.

***San Francisco Comment C.7:** Events that exceed the collection system design criteria can be widespread during exceptional storms. The performance of the combined sewer system during such events can be evaluated using models or other types of engineering evaluations, substantially lessening the burden of monitoring and reporting as proposed, and providing data of equivalent or better value.*

Response: While we agree that modeling and other engineering evaluations may be helpful in evaluating combined sewer system performance, we disagree that such tools can replace monitoring and reporting of actual sewer overflows from the combined sewer system. At a minimum, monitoring and reporting of actual overflows is needed to determine the accuracy of any model or other engineering evaluation completed. See our responses to San Francisco Comments C.3 and C.6.

San Francisco Comment C.8: *San Francisco suggests revising the tentative order as follows:*

... Sewer overflows from the combined sewer system do not include releases due to: (i) failures in privately-owned sewer laterals, (ii) overflows resulting solely from storm events in excess of the system's design capacity where the system is otherwise operating as designed, or (iii) authorized combined sewer discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007.

Response: We did not revise the tentative order for the reasons described in our responses to San Francisco Comments C.3 and C.6.

San Francisco Comment C.9: *The proposed reporting mechanism for sewer overflows from the combined sewer system incorporates by reference the sanitary sewer overflow notification and reporting requirements of State Water Board Order No. 2006-0003-DWQ and any amendments thereto. This is unreasonable.*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order as indicated in our response to Comment A.9. We agree that incorporating sections of the State Water Board order by reference could result in confusion if the State Water Board were to change the requirements of its order in the future.

San Francisco Comment C.10: *State Water Board Order No. 2006-0003-DWQ is specifically designed to address overflows from sanitary sewer systems. The legislature did not intend the reporting or monitoring requirements specified in Water Code section 13193(b), and incorporated into State Water Board Order No. 2006-0003-DWQ, to apply to combined sewer systems, and the legislature has not authorized the State Water Board to impose those requirements on a combined sewer system. Any monitoring and reporting system for sewer overflows from the combined sewer system cannot reasonably rely upon an order adopted pursuant to a legislative directive to regulate sanitary sewer systems.*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order to delete language incorporating by reference any provision of State Water Board Order No. 2006-0003-DWQ, as indicated in our response to San Francisco Comment A.9. Accordingly, the legislature's intent regarding Water Code section 13193(b) is no longer relevant. We note, however, that U.S. EPA and the Regional Water Board's authorities to require monitoring and reporting extend beyond those derived from Water Code section 13193(b).

San Francisco Comment C.11: *Combined sewer systems are distinct from sanitary sewer systems and are regulated under separate regulatory schemes recognizing their technical*

differences. It is, therefore, arbitrary to impose requirements on a combined sewer system that were specifically prepared for and adopted to regulate a sanitary system.

Response: While we agree that combined sewer systems and separate sewer systems are regulated differently, we disagree that it is arbitrary to apply similar monitoring and reporting requirements to them. There are many similarities between separate and combined sewer systems, not the least of which is the potential harm overflows from both types of systems can cause. As noted in the 2004 Report to Congress, both types of overflows contain the same pollutants and cause the same problems downstream. See 2004 Report to Congress, Fact Sheet, at p. 2, noting that both types of overflows contain raw sewage and “have contributed to beach closures, contamination of drinking water supplies, and other environmental and public health concerns”; 2004 Report to Congress, at p. 6-14, noting that both types of overflows “can also back up into buildings, including residences and commercial establishments,” risking direct contact with untreated sewage.

***San Francisco Comment C.12:** The terminology used in State Water Board Order No. 2006-0003-DWQ is inapplicable to a combined sewer system. For example, that order (i) does not define “combined sewer overflow,” (ii) does not define “combined sewer system,” and (iii) relates to the regulation of untreated or partially treated wastewater, which it defines as “waste discharged from the sanitary sewer system,” which is different than overflows from a combined sewer system. As a result, incorporating that order (and any amendments thereto) by reference results in ambiguity and a lack of fair notice to San Francisco because the terminology cannot be directly applied to San Francisco’s combined sewer system, and because it is unclear how the requirements of that order would apply.*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order to delete language incorporating by reference any provision of State Water Board Order No. 2006-0003-DWQ, as indicated in our response to San Francisco Comment A.9. Thus, San Francisco’s concerns regarding ambiguity and fair notice are moot.

***San Francisco Comment C.13:** San Francisco asserts that it was denied reasonable notice of, and opportunity to comment on, the terms in State Water Board Order No. 2006-0003 (and any amendments thereto) because San Francisco had no notice that those reporting requirements might be applied to its combined sewer system.*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order to delete language incorporating by reference any provision of State Water Board Order No. 2006-0003-DWQ, as indicated in our response to San Francisco Comment A.9. We made this change in direct response to San Francisco’s comments on the tentative order, belying San Francisco’s claimed lack of notice and opportunity to comment. San Francisco received 30 days to review the tentative order circulated April 19, 2019. U.S. EPA and Regional Water Board staff also met with San Francisco staff eight times between late October 2018 and early May 2019 to discuss permit reissuance.

***San Francisco Comment C.14:** Applying reporting requirements for sanitary sewer systems to San Francisco’s combined sewer system arbitrarily and capriciously deprives San Francisco the*

protections the California legislature has otherwise afforded the regulated community when the legislature mandated that the State Water Board adopt sanitary sewer overflow reporting requirements. See AB 285 (2001) (providing that "... if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions...").

Response: The monitoring and reporting requirements for sewer overflows from the combined sewer system are not State mandates (Gov. Code § 17556, subd. (c)). They are necessary to implement federal law. Specifically, such monitoring and reporting is needed to detect violations of Clean Water Act section 301 and evaluate compliance with the Nine Minimum Controls (see our responses to San Francisco Comments C.3 and C.6).

To the extent that the monitoring and reporting requirements also implement State law, the costs of compliance would not be a State mandate subject to reimbursement because these costs would fall within San Francisco's fee authority. Cal. Const., art. XIII D, § 6, subd. (c) [exempting fees or charges for sewer services]; Gov. Code §§ 17556, subd. (d) (no State mandate where the local agency has authority to levy fees sufficient to pay for the mandated program or increased level of service) 53750, subd. (k) (including stormwater collection, treatment, and disposal infrastructure in definition of "sewer").

San Francisco Comment C.15: *Incorporating by reference future amendments to State Water Board Order No. 2006-0003-DWQ is inappropriate because such incorporation of future terms does not provide San Francisco an adequate opportunity to comment on future requirements. Incorporating future amendments also results in an unacceptable delegation of authority from U.S. EPA to the State Water Board, would be contrary to the Clean Water Act, and would run afoul of the NPDES Memorandum of Agreement Between U.S. EPA and the State Water Board, which requires that U.S. EPA have an opportunity to comment on or object to the issuance of a permit or the terms or conditions therein.*

Response: We revised Provision VI.C.5.a.viii(b) of the tentative order as indicated in our response to Comment A.9, to delete language incorporating by reference future amendments of State Water Board Order No. 2006-0003-DWQ. Accordingly, San Francisco's concerns about future amendments and delegation are moot.

San Francisco Comment C.16: *San Francisco objects to the statement in Fact Sheet section VI.C.5.a that information about sewer overflows from the combined sewer system is needed to "establish whether sewer overflows from the combined sewer system result in a nuisance as defined by Water Code section 13050." Sewer overflows from the combined sewer system that occur due to storms in excess of design capacity cannot, under State law, be a nuisance for a number of reasons, including that San Francisco is authorized to operate a combined sewer system, operation of that system is pursuant to a permit issued by regulatory agencies, and operation of a combined sewer system is not objectively unreasonable. San Francisco is further protected by design immunity granted pursuant to the California Government Code. Collection of information about sewer overflows from the combined sewer system should be limited to events resulting from a system failure or other operation or maintenance issue, not storms in excess of design capacity.*

Response: Regarding the need for information about sewer overflows from the combined sewer system, regardless of cause, see our responses to San Francisco Comments C.3 and C.6. The existence of a nuisance, as defined in Water Code section 13050, subdivision (m), does not depend on its causes.

Regarding the need for information to determine whether sewer overflows result in a nuisance, the information is needed because Attachment G section I.I.1 of the tentative order states, “Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.” Preventing nuisance is integral to protecting the water contact recreation beneficial use and achieving the water quality objectives in the Ocean Plan and Basin Plan. Accordingly, the information about sewer overflows from the combined sewer system provides an essential means to evaluate compliance with these provisions.

Regarding San Francisco’s claims that sewer overflows from the combined sewer system cannot be a nuisance under State law, Water Code section 13050 does not exclude conditions arising out of the operations of a combined sewer system, whether or not those operations are reasonable. The Regional Water Board may, under Water Code section 13304, require persons, including local agencies like San Francisco, to remediate conditions of pollution or nuisance, as that term is defined in Water Code section 13050. See State Water Board Order No. WQ 96-2 (*County of San Diego*) (San Diego County properly named as discharger in 13304 Order); see also Central Valley Regional Water Board Order No. R5-2004-0043 (13304 order naming the City of Lodi, operator of the city’s sanitary sewer system, because its collection system had created and threatened to create a condition of pollution or nuisance).

Moreover, nuisance under the Water Code is not precisely the same as common law nuisance. See *San Diego Gas & Electric v. San Diego Regional Water Quality Control Bd.* (2019) 36 Cal.App.5th 427, 431, 442 (The finding of a nuisance under section 13304 “does not require application of the common law substantial factor test for causation” but “calls for an assessment of the impact or extent of harm from an actual or threatened discharge of waste and determination that remedial action is reasonably necessary by a named person.”); *City of Modesto v. Dow Chemical Co.* (2018) 19 Cal.App.5th 130, 147 (discussing differences between 13304 liability and extent of common law nuisance); *Newhall Land & Farming Co. v. Sup. Ct.* (1993) 19 Cal.App.4th 334, 341 (“Pollution of water constitutes a public nuisance. In fact, water pollution occurring as a result of treatment or discharge of wastes in violation of Water Code section 13000, et seq., is a public nuisance per se.”)(citations omitted); and *Tesoro Refining and Marketing Co. v. City of Long Beach* (C.D. Cal. 2017) 334 F.Supp.3d 1031, 1055-1056 (same). Accordingly, San Francisco’s assertion that sewer overflows from the combined sewer system can never be nuisances is incorrect.

D. Combined Sewer Discharge Monitoring

San Francisco Comment D.1: *San Francisco requests removing Monitoring Locations EFF-CSD-1, EFF-CSD-2, and EFF-CSD-7, and retaining Monitoring Location EFF-CSD from the previous order. The discharge characteristics at these outfalls are likely similar to those at Monitoring Location EFF-CSD because all of these watersheds are largely residential, with some commercial land uses. The need for water quality monitoring data from these locations is unclear. In the absence of a clear monitoring objective, and a monitoring plan designed to meet that objective, the data collected will be of little or no benefit.*

Response: We revised the tentative order similar to as proposed in this comment and San Francisco Comment D.4. The *Combined Sewer Overflow (CSO) Control Policy* requires “a post-construction water quality monitoring program adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls.” 59 Fed. Reg. 18688, 18694 (April 19, 1994). Monitoring of combined sewer discharges also is consistent with 40 C.F.R. section 122.41(j), which requires that monitoring shall be representative of the monitored activity. The revised monitoring approach clarifies the monitoring objective and allows San Francisco greater flexibility to characterize the quality of its discharges and to evaluate the efficacy of its controls through a special study. See our response to San Francisco Comment D.4 for revisions to the tentative order.

San Francisco Comment D.2: *This new monitoring would cost more than \$400,000 over the next five years. These costs do not include property acquisition, sampler maintenance, and false starts (mobilization for storms that do not generate a combined sewer discharge). The proposed monitoring would require constructing secure sampling stations on land San Francisco does not own and hiring on-call staff to perform on-call storm tracking and sample collection.*

Response: We revised the tentative order similar to as proposed in San Francisco Comments D.1 and D.4. See our response to San Francisco Comment D.4 for revisions to the tentative order. The revised monitoring approach allows San Francisco greater flexibility to achieve the monitoring objectives more economically.

San Francisco Comment D.3: *The tentative order substantially increases monitoring requirements.*

Response: We revised the tentative order similar to as proposed in San Francisco Comments D.1 and D.4. See our response to San Francisco Comment D.4 for revisions to the tentative order. Attachment E Table E-6 (now Table E-7) now requires less monitoring than the previous order, but we added a special study requirement as Provision VI.C.8.

San Francisco Comment D.4: *Introducing these new monitoring locations suggests they will need to be maintained in perpetuity. If U.S. EPA and the Regional Water Board insist on collecting water quality data from these locations, San Francisco is amenable to developing a*

work plan for a special study to further characterize the water quality of discharges at these locations.

Response: We revised the tentative order similar to as proposed in San Francisco Comment D.1 and this comment. The revised monitoring approach clarifies the monitoring objective and allows San Francisco greater flexibility to characterize the quality of its discharges and to evaluate the efficacy of its controls through a special study. The revisions essentially retain the requirements of the previous order for routine combined sewer discharge monitoring at Monitoring Location EFF-CSD. Attachment E Table E-6 (now Table E-7) now requires monitoring ten pollutants once per discharge and the remaining Ocean Plan Table 1 pollutants once per year (less frequently than the previous order). Because this NPDES permit must be reissued every five years, the monitoring requirements in this tentative order need not remain in perpetuity.

We revised Attachment E Table E-1 as follows:

Table E-1. Monitoring Locations

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]
⋮	⋮	⋮
Westside Recycled Water Project Reverse Osmosis Concentrate	EFF-001R	Any point at the Westside Recycled Water Project following all phases of treatment, prior to contact with plant effluent, Westside Transport/Storage Structure effluent, and the receiving water at Discharge Point No. 001.
Combined Sewer Discharge Effluent	EFF-CSD-4	A representative monitoring location <u>representative of combined sewer discharges from the Westside Transport/Storage Structure for all waste tributary to Discharge Point No. CSD-001.</u>
Combined Sewer Discharge Effluent	EFF-CSD-2	A representative monitoring location for all waste tributary to Discharge Point Nos. CSD-002 and CSD-003.
Combined Sewer Discharge Effluent	EFF-CSD-7	A representative monitoring location for all waste tributary to Discharge Point Nos. CSD-005, CSD-006, and CSD-007.
Shoreline Receiving Water	SRF-15	Nearshore receiving water along Baker Beach, in the surf at the terminus of Lobos Creek.
⋮	⋮	⋮

We revised Attachment E section IV.B.2.a as follows and updated the table of contents (see our response to San Francisco Comment A.39 for the rationale for additional changes shown here):

During combined sewer discharge events, the Discharger shall monitor combined sewer discharge effluent at Monitoring Locations ~~EFF-CSD-1, EFF-CSD-2, and EFF-CSD-7~~ EFF-CSD as follows:

Table E-7 E-6. Combined Sewer Discharge Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
TSS	mg/L	C-X 24 ^[2]	1/Event 3/Year ^[4]
pH	standard units	Grab	3/Year ^[4]

Parameter	Units	Sample Type	Minimum Sampling Frequency
Ammonia, total	mg/L as N	C- X 24 ^[2]	1/Event 3/Year ^[4]
Arsenic	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Cadmium	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Copper	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Lead	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Nickel	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Selenium	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Silver	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Zinc	µg/L	C- X 24 ^[2]	1/Event 3/Year ^[4]
Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C- X 24 ^[2,3]	1/Year ^[4]

Abbreviations:

mg/L = milligrams per liter
mg/L as N = milligrams per liter as nitrogen
µg/L = micrograms per liter

Sample Types and Frequencies:

~~C-24~~ = 24 hour composite
C-~~X~~ = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until a sufficient sample volume for the required analysis is obtained.
Grab = grab sample
1/Event = once per combined sewer discharge event
1/Year = once per year
~~3/Year~~ = three per year

Footnotes:

- [1] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, ~~and~~ chronic toxicity, and volatile organic compounds. The Discharger may monitor for total chromium in lieu of hexavalent chromium.
- [2] If the discharge lasts less than 24 hours, the Discharger shall sample for as long as possible at equal ~~one-hour~~ intervals and ~~record report~~ the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample.
- [3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a composite sample.
- [4] ~~Sampling is only required at the monitoring locations indicated below when there is a combined sewer discharge event at the discharge points indicated below:~~

<u>Discharge Point</u>	<u>Monitoring Location</u>
CSD-001	EFF CSD 4
CSD-002	EFF CSD 2
CSD-003	EFF CSD 2
CSD-005	EFF CSD 7
CSD-006	EFF CSD 7
CSD-007	EFF CSD 7

We added Provision VI.C.8 to the tentative order as follows and updated the table of contents:

Efficacy of Combined Sewer System Controls Special Study

By August 1, 2023, the Discharger shall submit a report to the Regional Water Board and U.S. EPA evaluating the quality of the combined sewer discharges and the efficacy of the combined sewer discharge controls during wet weather

(i.e., control of solid and floatable material in combined sewer discharges) at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007. At a minimum, the Discharger shall monitor for TSS, copper, lead, and zinc. The Discharger shall also evaluate floatables removal.

We added Fact Sheet section VI.C.8 as follows and updated the table of contents:

Efficacy of Combined Sewer System Controls Special Study

This special study is necessary to characterize the quality of the combined sewer discharges and the efficacy of the combined sewer system controls during wet weather. It is based on the *Combined Sewer Overflow (CSO) Control Policy*, which requires “a post-construction water quality monitoring program adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls.”

We revised Provision VI.C.a.ix of the tentative order as follows:

Control No. 9: Monitor to Characterize Combined Sewer Discharge Impacts and Efficacy of Controls. The Discharger shall monitor to determine the occurrence and apparent impacts of combined sewer discharges, and the efficacy of controls, as described in Provision VI.C.8 and the MRP.

We revised Attachment E Table E-14 (now Table E-15) as follows:

Table E-15 ~~E-14~~. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Order effective date	All times
⋮	⋮	⋮
2/Year	Closest January 1 or July 1 following or on Order effective date	January 1 through June 30 July 1 through December 31
<u>1/Event</u>	<u>As soon as possible after combined sewer discharge event begins</u>	<u>Duration of the combined sewer discharge event</u>

Staff-Initiated Changes

In addition to making minor editorial and formatting changes, we made the following staff-initiated revisions:

1. We added Attachment E section VIII (and renumbered the following section and updated the table of contents) to incorporate the State Water Board’s new recycled water monitoring and reporting requirements as set forth in State Water Board Order No. WQ 2019-0037-EXEC, as follows:

RECYCLED WATER MONITORING REQUIREMENTS

A. Influent Monitoring

The Discharger shall monitor the monthly volume of influent to the Oceanside Water Pollution Control Plant.

B. Production Monitoring

The Discharger shall monitor the monthly volumes of effluent from the Oceanside Water Pollution Control Plant and Westside Recycled Water Project for each level of treatment.

C. Discharge Monitoring

The Discharger shall monitor the monthly volumes of effluent from the Oceanside Water Pollution Control Plant and Westside Recycled Water Project discharged to each of the following, for each level of treatment:

1. Inland surface waters, specifying volume required to maintain minimum instream flow;
2. Enclosed bays, estuaries and coastal lagoons, and ocean waters;
3. Natural systems, such as wetlands, wildlife habitats, and duck clubs, where augmentation or restoration has occurred, and that are not part of a wastewater treatment plant or water recycling treatment plant;
4. Underground injection wells, such as those classified by U.S. EPA's Underground Injection Control Program, excluding groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface; and
5. Land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

D. Reuse Monitoring

The Discharger shall monitor the following:

1. Monthly volume of recycled water distributed; and
2. Annual volumes of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22, in each of the use categories listed below:
 - a. Agricultural irrigation: pasture or crop irrigation;

- b.** Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping;
- c.** Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses;
- d.** Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered;
- e.** Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered;
- f.** Geothermal energy production: augmentation of geothermal fields;
- g.** Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments;
- h.** Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use;
- i.** Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface;
- j.** Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Health and Safety Code section 116275, or into a constructed system conveying water to such a reservoir (Wat. Code § 13561);
- k.** Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that delivers raw water to a drinking water treatment plant that provides water to a public water system as defined in Health and Safety Code section 116275 (Wat. Code § 13561); and
- l.** Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

2. We added Attachment E section IX.D (and updated the table of contents) to incorporate the State Water Board's new recycled water reporting requirements as set forth in State Water Board Order No. WQ 2019-0037-EXEC, as follows:

Annual Recycled Water Reports

The Discharger shall electronically submit annual reports to the State Water Board by April 30 each year covering the previous calendar year using the State Water Board's GeoTracker website (<http://geotracker.waterboards.ca.gov>) under a site-specific global identification number. For the 2019 calendar year, the Discharger shall submit a report by April 30, 2020, covering January through December 2019. The annual report shall include the elements specified in Attachment E section VIII.

3. We revised Fact Sheet section VII.F to explain the other staff-initiated changes as follows:

Other Monitoring Requirements. Pursuant to CWA section 308, U.S. EPA requires dischargers to participate in a Discharge Monitoring Report-Quality Assurance (DMR QA) Study Program. ... Dischargers must submit results annually to the State Water Board, which then forwards the results to U.S. EPA.

Recycled water monitoring and reporting requirements are required to be incorporated into this Order by State Water Board Order No. WQ 2019-0037-EXEC (Amending Monitoring and Reporting Programs for Waste Discharge Requirements, NPDES Permits, Water Reclamation Requirements, Master Recycling Permits, and General Waste Discharge Requirements) issued on July 24, 2019, pursuant to Water Code sections 13267 and 13383.

4. We revised the first paragraph of Fact Sheet section III.C.2 as follows:

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, including in 1978 and most recently in ~~2018~~ 2015. The most recent changes became effective February 4, 2019 ~~January 28, 2016~~. The Ocean Plan establishes water quality objectives and a program of implementation to protect beneficial uses of the Pacific Ocean within the territorial waters of the State.

ATTACHMENT 1
TABULAR COMMENTS AND RESPONSES

Page and section numbers correspond to the tentative order publicly noticed on April 19, 2019.

#	Page	Section	Comment	Proposed Revisions	Response
A.1	5	III.D	SFPUC requests that the phrase “to a water of the United States” be added to Discharge Prohibition III.D to align this prohibition with Discharge Prohibition G in the existing permit, and with other language in the Tentative Order. Specifically, the requested change would clarify that this prohibition does not apply to Sewer Overflows from the Combined Sewer System.	Discharge to a water of the United States from any location other than Discharge Point No. 001 is prohibited, except from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 during wet weather (as defined in Attachment A) in accordance with the requirements in this Order.	We revised the tentative order as proposed. However, this change does not authorize any discharge to a water of the State that is not also a water of the United States. San Francisco has not submitted a Report of Waste Discharge (Wat. Code § 13260) nor obtained Waste Discharge Requirements (WDRs) for discharges or potential discharges to groundwater or non-U.S. waters of the State (Wat. Code § 13263; see also Wat. Code § 13304).
A.2	7	V	<p>The SFPUC is concerned that inclusion of a broad requirement to comply with receiving water limitations in addition to the specific water quality based effluent limitations in the permit creates uncertainty regarding whether compliance with the more specific terms of the permit – especially those related to wet weather – is sufficient to ensure that discharges are not causing or contributing to violations of water quality standards. Please see Attachment B for more detailed comments.</p> <p>If the Regional Water Board and EPA do not delete this standard provision and the broad prohibition on nuisances in Attachment G (see Comment No. 58), the SFPUC requests the edits specified in Comment Nos. 3, 54, and 55 to more explicitly clarify the applicability of these provisions to dry weather discharges only.</p>	<p>V. RECEIVING WATER LIMITATIONS.</p> <p>Discharge shall not cause or contribute to a violation of any applicable water quality standard (with the exception set forth in State Water Board Order No. WQ 79-16) for receiving waters adopted by the Regional Water Board, State Water Resources Control Board (State Water Board), or EPA as required by the CWA and regulations adopted thereunder. If more stringent water quality standards are promulgated or approved pursuant to CWA section 303, or amendments thereto, the Regional Water Board and EPA may revise or modify this Order in accordance with the more stringent standards.</p>	We did not revise the tentative order. See our responses to San Francisco Comments B.1 through B.13 related to the “Combined Sewer Overflow (CSO) Control Policy.”
A.3	7	IV.B	See explanation of request in Comment No. 2	During wet weather, the Discharger shall comply with the narrative water quality-based effluent limitations contained in	We revised the tentative order as proposed. During wet weather, the water quality-based effluent limitations apply to effluent

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				Provision VI.C.5.c (Long-Term Control Plan) for the Discharge Points in Table 2.	discharged from all authorized discharge points.
A.4	13	VI.C.4.b.iv	SFPUC requests that the local limits evaluation be due with the Report of Waste Discharge (ROWD). SFPUC has a single Pretreatment Program that includes both the Oceanside and Southeast Water Pollution Control Plants, and local limits apply citywide. Because the two plants' permits are adopted separately and at different times, SFPUC requests the evaluation be due by the ROWD due date. SFPUC plans to evaluate local limits for both plants every five years, but timing of this evaluation and the permits' effective dates plus 180 days may not coincide.	Evaluation of the need to revise local limits as required under 40 C.F.R. sections 122.44(j)(2)(ii) and 403.5(c)(1) and, within 180 days following the effective date of this Order by <<Insert ROWD Due Date>> , submission of a report describing the changes to local limits with a plan and schedule for implementation, or the rationale for making no changes to local limits.	We revised the tentative order to postpone the deadline for this task, but not as much as requested. Pursuant to 40 C.F.R. section 403.5(c)(1), a written technical evaluation of the need to revise local limits is required shortly following permit reissuance because the local limits need to reflect any new permit requirements. However, we recognize San Francisco's desire to coordinate this effort with the same effort undertaken to comply with the Southeast Water Pollution Control Plant permit when that permit is reissued. That will likely be several months from now. We believe providing 12 months for San Francisco to complete its local limits evaluation will provide sufficient time for the Regional Water Board to complete the reissuance process and for San Francisco to coordinate compliance with respect to this requirement for both permits. Thus, we revised the tentative order as follows: Evaluation of the need to revise local limits as required under 40 C.F.R. sections 122.44(j)(2)(ii) and 403.5(c)(1) and, within 180 days following the effective date of this Order by November 1, 2020 , submission of a report describing the changes to local limits with a plan and schedule for implementation, or the rationale for making no changes to local limits.
A.5	13 – 14	VI.C.4.d	SFPUC requests the addition of clarifying language that compliance with the State Water Board Order No. 2006-0003-DWQ as amended by Order No. WQ 2013-0058-EXEC is separate from the NPDES permit. The suggested language is consistent with the recently adopted permits for West County	d. Separate Sanitary Sewer Systems. State Water Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, as amended by State Water Board Order No. WQ 2013-0058-EXEC, contains	We did not revise the tentative order as proposed. The words "While the Discharger must separately comply with both the statewide WDRs and this Order" could be misinterpreted to require compliance with the statewide WDRs as a requirement of this NPDES permit. That is not our intent (and it

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			Agency (Order No. R2-2019-0003) and City of Palo Alto (Order No. R2-2019-0015).	requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. <u>While the Discharger must separately comply with both the statewide WDRs and this Order, the statewide WDRs more</u> clearly and specifically stipulate requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows. Implementing the requirements for operation and maintenance and mitigation of sanitary sewer overflows set forth in the statewide WDRs (and any subsequent order updating those requirements) shall satisfy the corresponding federal NPDES requirements specified in Attachments D and G of this Order for the separate sanitary collection systems. Following the reporting requirements set forth in the statewide WDRs (and any subsequent order updating these requirements) shall satisfy the NPDES reporting requirements for sanitary sewer overflows specified in Attachments D and G.	has not been the Regional Water Board’s intent in the many NPDES permits that include these words). However, we revised the tentative order to define “statewide WDRs” as follows since this expression is used in subsequent passages: State Water Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, as amended by State Water Board Order No. WQ 2013-0058-EXEC (<u>statewide WDRs</u>), contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. ...
A.6	15	VI.C.5.a.i.(f)	SFPUC requests changes to clarify that the annual inspections are limited to combined sewer outfalls, consistent with Oceanside’s current permit, the SFPUC Southeast Plant permit, CSO Control Policy guidance on Nine Minimum Control implementation, and the subsequent text within that provision (e.g., “entering the regulator structure...adjusting tide gates...”).	(f) Inspections. The Discharger shall conduct an inspection program of the combined sewer system to provide reasonable assurance that unpermitted discharges, obstructions, and damage will be discovered. At a minimum, the Discharger shall do the following: (1) Inspect each <u>combined sewer discharge outfall and associated structures (e.g., tide gates and sensors) critical facility and major system component identified in accordance with Provision VI.C.5.a.i.(e), above</u> , at least once every 12 months to ensure they are in good working condition. The inspection shall include, but not be limited to, Inspections of outfalls	We did not revise the tentative order. Annual inspection requirements should not be limited to combined sewer discharge points. Each critical facility needs to be inspected because critical facilities affect the performance of the combined sewer system, discharge volumes, and pollutant levels. As written, the provision is consistent with guidance on Nine Minimum Control implementation, which indicates the “O&M program should describe the procedures for inspecting critical elements of the combined sewer system” (page 2-3); “...field personnel [should] check critical items...” (page 2-4); and “inspections could be conducted of regulator devices and interceptors, trunks, and combined sewers during dry weather for blockages, excessive deposition of solids,

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				<p><u>shall include</u> entering the regulator structure, if accessible; determining the extent of any structural defects or debris and grit buildup; removing any debris that may constrict flow, cause blockage, or result in a prohibited discharge; and adjusting tide gates to minimize combined sewer discharges and to prevent tidal inflow.</p>	<p>excessive infiltration/inflow, and structural deterioration that needs to be corrected” (page 2-4).</p> <p>We also disagree that inspections should only include entering the regulator structure of the outfall. Regulators control the amount of flow to a downstream point and provide an outlet for flows in excess of the sewer capacity. Adjustment of regulator settings, proper regulator maintenance, and increasing a regulator outlet to the interceptor are control measures that can ensure optimal system performance and maximize in-line storage. Therefore, inspections of such structures, regardless of where they are located, are necessary to ensure that maximum flows are directed to the treatment plant and that the collection system is being maximized for storage.</p>
A.7	15	VI.C.5.a.ii.(a)	<p>SFPUC requests removal of the requirement to control intrusion from receiving waters. “Intrusion” is not defined in the Tentative Order, but is assumed to be a situation wherein Bay or Ocean water enters the combined sewer system via a combined sewer discharge (CSD) weir during high tides. This does not occur on the Westside of the City because the CSD weir elevations are quite high relative to the tidal height, even under King Tide conditions. As such, the City proposes that this control measure be removed.</p>	<p>ii. Control No. 2: Maximize Use of Collection System for Storage. The Discharger shall maximize use of the combined sewer system for in-line storage to reduce the magnitude, frequency, and duration of combined sewer discharges. At a minimum, the Discharger shall implement the following controls:</p> <p>(a) Prevent intrusion of receiving waters into the combined sewer system;</p>	<p>We did not revise the tentative order. The requirement to control intrusion from receiving waters into the combined sewer system is needed to ensure that collection system storage is maximized. However, San Francisco could demonstrate that intrusion does not occur because of weir elevations and tidal heights when it completes the system characterization required in Provision VI.C.5.d of the tentative order.</p>
A.8	15	VI.C.5.a.ii.(b)	<p>SFPUC does not own any inoperative or unused treatment facilities, and the requirement to use all operative facilities is addressed in the LTCP provisions related to operations during wet weather. As such, the City proposes that this control be removed.</p>	<p>(b) Use all facilities, including any inoperative or unused treatment facilities, to store or treat wet weather flows to the maximum extent practicable; and</p>	<p>We did not revise the tentative order. If San Francisco has no inoperative or unused treatment facilities, it can readily comply with this requirement. In the future, if San Francisco takes any treatment facility out of service, this provision would be necessary to comply with the <i>Combined Sewer Overflow</i></p>

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					<i>(CSO) Control Policy</i> (e.g., to maximize flow to the treatment plant).
A.9	15	VI.C.5.a.ii	<p>The SFPUC is strongly concerned that the Tentative Order’s requirements related to sewer overflows from the combined sewer system (SOCSS) are inappropriate and have no basis in in the CSO Control Policy. See Comment Nos. 16 and 17. The SFPUC is amenable, however, to reporting the occurrence, cause and location of SOCSS to facilitate EPA, Regional Water Board, and the public’s evaluation of the effectiveness of the City’s operation and maintenance of the collection system. The changes requested require reporting to CIWQS and are consistent with the City’s recent efforts to standardize field response to and recordkeeping of sewer overflows in both the combined and separate sewer systems. This reporting is being proposed as an element of Control No. 2: Maximize Use of the Collection System for Storage.</p> <p>The SFPUC requests replacement of the Tentative Order language that referenced the State’s Waste Discharge Requirements for Sanitary Sewer Systems (“SSS WDR”), Order 2006-0003-DWQ, with language that explicitly identifies the reporting requirements in that order that apply to discharges of untreated wastewater from a collection system that do not reach surface waters. The SFPUC’s concern is that incorporation of the “notification and reporting requirements” of the WDR into the permit leaves open to interpretation the specific requirements that are applicable here. All requirements enumerated in the SFPUC’s requested changes are intended to be identical to those in the State Water Board’s SSS WDR.</p>	<p><u>To allow evaluation of the Discharger’s program to properly operate and maintain the combined sewer collection system, the Discharger shall undertake the following within six months of the effective date of this order:</u></p> <ol style="list-style-type: none"> 1) <u>Complete the CIWQS Online Collection System Questionnaire and begin entering all SOCSS information into the CIWQS Online SSO Database. All information entered into the CIWQS Online SSO Database shall be certified by the Discharger’s Legally Responsible Official(s). The Collection System Questionnaire shall be updated and certified every 12 months.</u> 2) <u>Begin reporting all SOCSS 1,000 gallons or greater by submitting a draft report to CIWQS within 3 business days of becoming aware of the SOCSS and certifying within 15 calendar days of the SOCSS end date.</u> 3) <u>Begin reporting all SOCSS less than 1,000 gallons by submitting a certified report to CIWQS within 30 calendar days of the end of the month in which the SOCSS occurred.</u> 4) <u>Begin certifying that no SOCSS occurred within 30 calendar days of the end of the month.</u> 	<p>We revised the tentative order similar to as proposed. See our responses to San Francisco Comments C.1 through C.16 related to “Sewer Overflows in the Combined Sewer System.”</p> <p>We agree that incorporating sections of the statewide WDRs by reference could result in confusion. To avoid such confusion, we eliminated the incorporation by reference. Also, as discussed in our response to San Francisco Comment A.17, we agree that monitoring and reporting requirements for sewer overflows from the combined sewer system could be moved to Provision VI.C.5.a.ii of the tentative order because the information will be useful to evaluate the effectiveness of the collection system operation and maintenance. Therefore, we deleted Provision VI.C.5.a.viii(b), removed the heading from Provision VI.C.5.a.viii(a) and re-lettered the remaining items, renamed the heading for Provision VI.C.5.a.ii, updated references to these sections throughout the tentative order, and revised Provision VI.C.5.a.ii as follows:</p> <p>Control No. 2: Maximize Use of Collection System for Storage.</p> <p>(a) <u>The Discharger shall maximize use of the combined sewer system.... At a minimum, the Discharger shall implement the following controls:</u></p> <p style="margin-left: 40px;">(1)(a) ...</p> <p style="margin-left: 40px;">(2)(b) ...</p> <p style="margin-left: 40px;">(3)(c) ...</p> <p>(b) <u>The Discharger shall notify and report sewer overflows from the combined sewer system by</u></p>

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					<p><u>implementing the following within six months of the effective date of this Order:</u></p> <p>(1) <u>The Discharger shall complete the CIWQS Online Collection System Questionnaire, as required by the CIWQS system, and enter information regarding all sewer overflows from the combined sewer system into the CIWQS Online SSO Database, including all required database fields. The Discharger’s Legally Responsible Official, as required by the CIWQS system, shall certify all information submitted. The Discharger shall update and certify the Collection System Questionnaire at least every 12 months.</u></p> <p>(2) <u>For sewer overflows from the combined sewer system with volumes 1,000 gallons or greater, the Discharger shall submit draft reports through the CIWQS Online SSO database within 3 business days of becoming aware of the sewer overflow from the combined sewer system and certify the reports within 15 calendar days of the end date of the sewer overflow from the combined sewer system.</u></p> <p>(3) <u>For sewer overflows from the combined sewer system with volumes 50,000 gallons or greater, the Discharger shall submit a technical report within 45 calendar days of the end date for such overflows that further</u></p>

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					<p>explains the causes and circumstances, including the method and data used to calculate the volume, and lists response actions completed and planned.</p> <p>(4) For sewer overflows from the combined sewer system with volumes less than 1,000 gallons, the Discharger shall submit certified reports to the CIWQS Online SSO database within 30 calendar days of the end of the month during which such overflows occur.</p> <p>(5) For each month during which no sewer overflow from the combined sewer system occurs, the Discharger shall certify, within 30 calendar days of the end of the month during which no sewer overflow from the combined sewer system occurred, that no sewer overflow from the combined sewer system occurred.</p>
A.10	16	VI.C.5.a.iv	SFPUC suggests the modifications for clarity. The requirement to operate at “maximum capacity” is confusing in light of the specific operational requirements in the LTCP provisions.	<p>iv. Control No. 4: Maximize Flow to Treatment Plant. The Discharger shall operate fully utilize the Oceanside Water Pollution Control Plant at maximum capacity during wet weather. The Discharger shall maximize the volume of wastewater that receives treatment at the Oceanside Water Pollution Control Plant (i.e., secondary treatment for 43 MGD and primary treatment for an additional 22 MGD) and is discharged at Discharge Point No. 001.</p>	<p>We revised the tentative order similar to as proposed:</p> <p>Control No. 4: Maximize Flow to Treatment Plant. The Discharger shall operate the Oceanside Water Pollution Control Plant at maximum capacity during wet weather. During wet weather, the Discharger shall maximize the volume of wastewater that receives treatment at the Oceanside Water Pollution Control Plant (i.e., secondary treatment for 43 MGD and primary treatment for an additional 22 MGD) and is discharged at Discharge Point No. 001.</p>

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A.11	16	VI.C.5.a.vi	SFPUC has already installed infrastructure to control solids and floatable materials in combined sewer discharges. The suggested language is to clarify that the control of solids and floatable materials in combined sewer discharges does not require <u>new</u> capital projects. Instead, it requires that existing infrastructure for solids and floatable materials control be maintained as operational, and that the City continue implementation of relevant best management practices (<i>e.g.</i> , street sweeping) as described by EPA guidance on implementation of the Nine Minimum Controls.	vi. Control No 6: Control Solid and Floatable Materials in Combined Sewer Discharges. The Discharger shall <u>continue to</u> implement measures to minimize the volume of solid and floatable materials in combined sewer discharges (<i>e.g.</i> , equip Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD 007 with baffles, screens, or racks, or other means to reduce the volume of solid and floatable materials). The Discharger shall also remove and properly dispose of solid and floatable materials captured in the combined sewer system.	We did not revise the tentative order. While we do not expect this requirement to require significant new capital improvements, limiting the requirement to existing measures is inappropriate. Without a thorough evaluation of existing conditions, San Francisco cannot confirm that existing measures are sufficient to minimize the volume of solid and floatable materials in combined sewer discharges. Even if existing measures are sufficient now, they will require maintenance and may eventually require replacement.
A.12	16 – 17	VI.C.5.a.viii.(a)	SFPUC requests the removal of repetitive language. A detailed list is included in the bullets following the paragraph as part of the same control number.	(a) Combined Sewer Discharges. The Discharger shall inform the public of the location of combined sewer discharge outfalls (<i>i.e.</i> , Discharge Point Nos. CSD 001, CSD-002, CSD-003, CSD-004, CSD 005, CSD-006, and CSD 007), the actual occurrences of combined sewer discharges, the possible health and environmental impacts of combined sewer discharges, and the recreational or commercial activities (<i>e.g.</i>, swimming, shellfish harvesting) curtailed as a result of combined sewer discharges.	We did not revise the tentative order. The text in question provides useful context regarding the more specific requirements in Provisions VI.C.5.a.viii(a)(1) through VI.C.5.a.viii(a)(4) of the tentative order.
A.13	17	VI.C.5.a.viii.(a)(1)	SFPUC requests removal of overly prescriptive requirements about permanent signage. Flexibility is required to enable engagement of various stakeholders, including the San Francisco Department of Public Health and the federal entities that own the shoreline. For example, the National Park Service controls access and is required to approve the terminology, size, font size,	(1) The Discharger shall maintain permanent identification signs at the locations of Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007, and at public access points. The Discharger shall inspect, and replace as necessary, all permanent signs at least once per calendar year to ensure that the signs are visible and readable. New or replacement signs shall be a minimum of 12 by 18 inches, with a font	We revised the tentative order similar to as proposed to provide San Francisco more flexibility while ensuring that the public is informed: The Discharger shall maintain permanent identification signs at the locations of Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-005, CSD-006, and CSD-007, and at public access points. The Discharger shall inspect, and replace

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			<p>and material of signage at beaches in the Golden Gate National Recreation Area.</p>	<p>size of at least 50; be printed on reflective material; and contain the following information, at a minimum:</p> <ul style="list-style-type: none"> • SFPUC Discharge Point No. (discharge identification number). • Report dry weather discharges at (telephone number). • <u>Description of discharge, including the words “sewage” and “pathogens”</u> This outfall may discharge sewage mixed with rainwater during or following rain events. Avoid water contact — pathogens that cause illness may be present in the discharge. • Warning, alert, caution, or other term to notify the public that caution is needed. 	<p>as necessary, all permanent signs at least once per calendar year to ensure that the signs are visible and readable. New or replacement signs shall be a minimum of 12 by 18 inches, with a font size of at least 50; be printed on reflective material; visible and legible from a distance of 50 feet onshore and offshore, and contain the following information, at a minimum:</p> <ul style="list-style-type: none"> • <u>SFPUC Discharge Point No.</u> (discharge identification number). • R <u>Telephone number to report dry weather discharges at (telephone number).</u> • <u>Description of discharge, including the words “sewage” and “pathogens that can cause illness.”</u> This outfall may discharge sewage mixed with rainwater during or following rain events. Avoid water contact — pathogens that cause illness may be present in the discharge. • Warning, alert, caution, or other term to notify the public that caution is needed.
A.14	17	VI.C.5.a.viii. (a)(2)	<p>SFPUC staff post warning signs at beach locations where water contact recreational activities may be affected by combined sewer discharges. The signs are posted on the same day as the combined sewer discharge event or the next morning if the discharge occurs in the evening.</p> <p>SFPUC requests a change to the required morning and evening timing to within two hours of civil twilight and 4:00 p.m. because of safety and limited accessibility.</p> <p>Depending on the time of year and weather conditions, posting all City sites by 8:00 a.m. would require staff to perform these activities</p>	<p>(2) The Discharger shall post warning signs, including “No Swimming” signs, at beach locations whenever a combined sewer discharge occurs to inform users that bacteria concentrations may be elevated. The Discharger shall post warning signs within four hours of when the discharge commences unless the discharge begins after sunset, in which case, the Discharger shall post warning signs by 8:00 a.m. the following day. on the same day as the combined sewer discharge event unless the combined sewer discharge occurs after 4:00 p.m., in which case, signs shall be posted</p>	<p>We revised the tentative order similar to as proposed to address concerns associated with posting signs in the dark:</p> <p>The Discharger shall post warning signs, including “No Swimming” signs, at beach locations whenever a combined sewer discharge occurs to inform users that bacteria concentrations may be elevated. The Discharger shall post warning signs within four hours of when the time the discharge commences unless the discharge begins within one hour of after sunset, in which case, the Discharger shall post warning signs within one hour of</p>

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			<p>in the dark, which presents significant safety concerns. Many posting locations and surrounding areas have minimal or no artificial lighting, making natural sunlight the main source of light. Civil twilight is defined as the time period when the sun is no more than six degrees below the horizon at either sunrise or sunset. It is the time in which there is enough solar illumination for the human eye to clearly distinguish terrestrial objects, meaning that a recreator would be able to carry on ordinary outdoor activities and there would be enough natural sunlight and visibility for staff to perform posting. Two hours provides time for staff to travel and post at various locations throughout San Francisco during larger storms and/or more difficult weather conditions.</p> <p>In addition, at certain locations, the U.S. National Park Services closes sites at least one or more hours prior to sunset, making it impossible to post when a CSD occurs within an hour of sunset. For example, on May 6, 2019, a park hours sign was adjusted to close at 5 p.m. when sunset occurred at 8 p.m. The proposed 4:00 p.m. time presents much less accessibility issues because the earliest sunset time in San Francisco occurs at about 5:00 p.m.</p>	<p><u>within two hours after morning civil twilight the next day.</u> Signs shall be posted until analysis indicates that water quality meets bacteriological standards for recreation.</p>	<p><u>sunrise by 8:00 a.m.</u> the following day. Signs shall be remain posted until analysis indicates that water quality meets bacteriological <u>standards criteria</u> for recreation.</p> <p>Similarly, we revised Provision VI.C.5.a.viii(a)(3) as follows:</p> <p>The Discharger shall post warning signs at public access points where shellfish may be harvested for human consumption whenever a combined sewer discharge occurs. The Discharger shall post warning signs within four hours of <u>when the time</u> the discharge commences unless the discharge begins <u>within one hour of after</u> sunset, in which case, the Discharger shall post warning signs <u>within one hour of sunrise by 8:00 a.m.</u> the following day. Signs shall be posted until the City and County Health Department indicates that posting is no longer required.</p> <p>We understand San Francisco’s concern that access may occasionally be limited by the U.S. National Park Services or other circumstances. San Francisco should report such circumstances with its self-monitoring reports so the Regional Water Board and U.S. EPA can consider the specific facts when exercising our enforcement discretion.</p>
A.15	17	VI.C.5.a.viii. (a)(4)	<p>SFPUC provides electronic notification of CSDs on its website and telephone hotline. The purpose of this public notification is to provide day-of information for the public to understand whether it is safe to use the water for recreational activities. It is not clear how notification of CSD duration furthers this purpose. The duration of a CSD is not an indicator of how safe it is to be on the beach; rather the reported fecal indicator bacteria concentrations are the indicators. Moreover,</p>	<p>(4) The Discharger shall provide electronic notification of combined sewer discharges through a free-access website and telephone hotline. The electronic notification shall include information about the location, duration, and impacts of combined sewer discharges, and provide a telephone number for the public to report discharges.</p>	<p>We revised the tentative order as proposed. San Francisco cannot notify the public about the duration of discharges while the discharges are still taking place.</p>

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			<p>determining CSD duration requires an involved calculation, making day-of notification infeasible. In addition, when an ongoing discharge is occurring, the CSD duration is changing (i.e., a moving target), so the value is unknown when our staff perform day-of notifications.</p>		
A.16	17	VI.C.5.a.viii.(b)	<p>The SFPUC strongly objects to the various provisions in the Tentative Order related to Sewer Overflows in the Combined Sewer System (SOCSS). More specifically, the SFPUC disagrees that EPA or the State has jurisdiction over discharges within the combined sewer system that do not reach surface waters, and which have no potential to do so.</p> <p>The Tentative Order implicitly and explicitly indicates that the CSO Control Policy regulates SOCSS. The SFPUC requests identification of the specific provisions in the Policy and/or any implementing guidance to support this position.</p> <p>The SFPUC conceptually agrees, however, that the frequency, cause and location of SOCSS may be a metric to evaluate the effectiveness of operation and maintenance of the collection system to the extent that they are indicative of blockages that may reduce storage capacity. Accordingly, in order to facilitate this evaluation, the SFPUC is willing to report SOCSS to the State's CIWQS database provide that the changes requested below are made.</p>	<p>See Comment No. 9 for proposed language regarding reporting of SOCSS.</p>	<p>We revised the tentative order as shown in our response to San Francisco Comment A.9. Regarding San Francisco's general concerns, see our responses to San Francisco Comments C.1 through C.16 related to "Sewer Overflows in the Combined Sewer System." Also see our response to San Francisco Comment A.17.</p> <p>Contrary to San Francisco's assertion, the State does have jurisdiction over discharges from the combined sewer system that do not reach surface waters if those discharges reach or threaten to reach waters of the State. For example, groundwaters are waters of the State. This NPDES permit does not authorize any discharges to waters of the State that are not also waters of the United States.</p>

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A.17	17	VI.C.5.a.viii.(b)	<p>The SFPUC requests that the requirement to report SOCSS be removed from the provision related to Nine Minimum Control Measure 8. Neither the CSO Control Policy or related guidance requires or otherwise contemplates the reporting of SOCSS. For example, <i>EPA Combined Sewer Overflow Guidance for Nine Minimum Controls</i>, EPA 832-B-95-003 (May 1995) is entirely limited to discharges to receiving waters, stating: “The intent of the eighth minimum control, public notification, is to inform the public of the location of CSO outfalls, the actual occurrences of CSOs, the possible health and environmental effects of CSOs, and the recreational or commercial activities (e.g., swimming and shellfish harvesting) curtailed as a result of CSOs.” Pg. 9-1.</p>	<p>Control No. 8: Notify Public of Combined Sewer Discharges and Sewer Overflows from the Combined Sewer System (b) Sewer Overflows from the Combined Sewer System. For combined sewer system excursions, the Discharger shall notify and report consistent with the sanitary sewer overflow notification and reporting requirements of State Water Board Order No. 2006-0003-DWQ, “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems,” as amended by State Water Board Order No. WQ 2013-0058-EXEC, and any subsequent order updating these requirements (i.e., State Water Board Order No. WQ 2013-0058-EXEC Attachment A, sections B.1, B.2, B.3, C.2, C.3, C.4, C.5, C.7, and C.8.i).</p>	<p>In San Francisco Comment A.9, San Francisco says it is willing to report sewer overflows from the combined sewer system into the CIWQS database. Accordingly, we revised the tentative order as shown in our response to San Francisco Comment A.9. Specifically, we revised and moved this requirement to Provision VI.C.5.a.ii (Control No. 2: Maximize Use of Collection System for Storage) as requested; we agree that the information in the reports will be useful for evaluating the effectiveness of collection system operation and maintenance. We further note that such reporting is necessary because we cannot confirm whether overflows from the combined sewer system reach waters of the United States without this reporting.</p> <p>The <i>Combined Sewer Overflow (CSO) Control Policy</i> requires public notification for combined sewer overflows, which it defines as discharges from a combined sewer system at points prior to the treatment plant. Sewer overflows from the combined sewer system could fall within this definition depending on their volume and location; accordingly, the reporting the tentative order requires will help to meet the requirements of the <i>Combined Sewer Overflow (CSO) Control Policy</i>.</p> <p>We also note that sewer overflows from the combined sewer system pose serious potential health concerns, regardless of whether the overflows are discharges to waters of the United States.</p> <p>U.S. EPA’s <i>Combined Sewer Overflow Guidance for Nine Minimum Controls</i>, EPA 832-B-95-003 (May 1995) states that the principal advantage of a notification program is the reduced expose of the general public to the potential public health risks and that</p>

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					notification will diminish the potential risk of adverse public health effects. Such risks occur when the public is exposed to combined sewage, which could occur from a sewer overflow from the combined sewer system. Therefore, reporting information about sewer overflows from the combined sewer system serves a public notification function and provides information related to collection system operation and maintenance, the storage capacity of the collection system, the amount of wastewater being routed for treatment, and the success of measures to reduce floatables.
A.18	18	VI.C.5.b	SFPUC requests an annual reporting deadline of February 1 for documentation of the Nine Minimum Controls, consistent with the annual report deadline. That will allow sufficient time for recording and reporting on wet weather performance and dry season maintenance activities, which are typically completed through the end of the dry season in late September.	(2) Documentation of Nine Minimum Controls. The Discharger shall maintain records documenting implementation of the nine minimum controls described in Provision VI.C.5.a. By October 31- February 1 each year, the Discharger shall submit a report to the Regional Water Board and EPA covering the prior October 1 through September 30. The report shall summarize actions taken and planned to implement the nine minimum controls.	We revised the tentative order as proposed. The change will allow San Francisco sufficient time to prepare these reports.
A.19	19-21	VI.C.5.d	The SFPUC strongly disagrees that an update to the City’s LTCP is needed or appropriate. The City developed and implemented a multi-billion dollar LTCP that resulted in the current level of wet weather control, which was prescribed by EPA and the State as being protective of beneficial uses. Since completion of the LTCP, the City has performed extensive post-construction monitoring that demonstrates that system performance is consistent with the system design, and that beneficial uses are being protected (<i>see</i> Characterization of Westside Wet Weather Discharges and the Efficacy of	Please see the specific line edits proposed in Comment Nos. 20-27.	See our responses to San Francisco Comments B.1 through B.13 related to the “Combined Sewer Overflow (CSO) Control Policy” and Comments A.20 through A.27.

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			<p>Combined Sewer Discharge Controls, July 2014). Findings to this effect have been included in prior permits, including the current OSP NPDES Permit (R2-2009-0062).</p> <p>The requested changes are intended to reflect that the City has implemented a LTCP, and that the purpose of this section is to continue to assess the current performance in light of post-construction monitoring data and sensitive areas considerations. Please see Attachment B for more detailed comments.</p>		
A.20	19	VI.C.5.d	<p>Consistent with the CSO Control Policy, the SFPUC requests modifications to the introductory paragraph to clarify that any LTCP update will be based on an assessment of post-construction monitoring results and an evaluation of sensitive areas. <i>See</i> Chapter 5, Post-Phase II Permitting, <i>EPA Combined Sewer Overflows Guidance for Permit Writers</i> (1995), which identifies these two elements as the only ones applicable to cities that have implemented a LTCP (i.e., “post-phase II permittees”).</p>	<p>d. LTCP <u>Assessment and Update</u>. The Discharger shall <u>assess and</u> update <u>as appropriate</u> its LTCP by implementing the following tasks. <u>The objective of the tasks in Table 7 are to assess and update the LTCP to be consistent with the sensitive area and post-construction monitoring provisions of based on the nine elements described in the Combined Sewer Overflow (CSO) Control Policy, and The Discharger</u> shall submit the required reports to the Regional Water Board and EPA as specified in the table below. In doing so, the Discharger may use previously completed studies to the extent that they accurately provide the required information.</p>	<p>We did not revise the tentative order as proposed. A specific requirement for San Francisco to “assess” its Long-Term Control Plan (LTCP) is unnecessary since updating the plan as specified will necessitate assessing the plan. Also, adding the words “as appropriate” to the update requirement is unnecessary and could suggest that not updating the LTCP could be an acceptable outcome. We cannot imagine a scenario where the LTCP cannot possibly be improved. Finally, explaining the purpose of this provision as proposed is unnecessary since Fact Sheet section VI.C.5.d already provides a lengthy justification. Specifically, Fact Sheet section VI.C.5.d indicates the purpose of this provision is, in part, to ensure that (1) water quality objectives during wet weather are met to the greatest extent practicable, consistent with State Water Resources Control Board Order No. WQ 79-16; (2) receiving water designated uses are protected; (3) human health and environmental impacts from combined sewer discharges are minimized; (4) a range of control alternatives are evaluated to further reduce combined sewer discharges to sensitive areas; and (5) planning incorporates adaptive management.</p>

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					<p>However, we did revise the tentative order as follows:</p> <p>LTCP Update. The Discharger shall update its LTCP by implementing the following tasks based on the nine elements described in the <i>Combined Sewer Overflow (CSO) Control Policy</i> and shall submit the required reports to the Regional Water Board and U.S. EPA as specified in the table below. ...</p>
A.21	19 - 20	Table 7, Task 1	<p>The SFPUC requests replacement of the requirement to evaluate system response to 5 and 10-year design storms with a requirement to evaluate system response to a modeled typical year. As is industry standard and recommended by EPA guidance (EPA Combined Sewer Overflows Guidance for Monitoring and Modeling (1999)), one of the ways that the SFPUC evaluates performance of its combined sewer system is through hydraulic and hydrologic (H&H) model simulations of a typical year. “Typical year” is a technical term used to refer to a series of modified historical storm events that are based on a statistical analysis of a long-term rainfall dataset, and represents long-term rainfall averages in terms of rainfall depth, duration and intensity. The SFPUC has a very detailed and highly calibrated and validated H&H model, and has developed a typical year based on 30 years of measured rainfall data. The ability of the modeled typical year to simulate system performance is high because the results in terms of CSD frequency and volume closely match the long-term annual average monitored performance of the Westside system.</p> <p>Please remove all references to sewer overflows in the combined system in this section. Sewer overflows in the collection</p>	<p>1. <u>Post-Construction Characterization, Monitoring, and Modeling of the Combined Sewer System</u></p> <p>The Discharger shall submit a System Characterization Report with a comprehensive characterization of the combined sewer system developed through records review, monitoring, modeling, and other means as appropriate to establish the existing conditions upon which the <u>updated-LTCP Consideration of Sensitive Areas Report (Task 3)</u> will be based. At a minimum, the System Characterization Report shall do <u>include</u> the following:</p> <ul style="list-style-type: none"> a. Include a <u>A description thorough review</u> of the entire combined sewer system, including how it responds to <u>typical year rainfall various precipitation events (including 3-hour duration, 5-year and 10-year return frequency storms)</u> with respect to the volume and frequency of combined sewer system discharges and sewer overflows from the combined sewer system, considering the impacts of climate change and sea level rise; b. Describe <u>A description of</u> each model used, including a discussion of model calibration and validation; c. Identify <u>The</u> location, frequency, and 	<p>Notwithstanding some exceptions as explained below, we revised the tentative order similar to as proposed and postponed the compliance date from 24 to 48 months:</p> <p><u>Post-Construction Characterization, Monitoring, and Modeling of Combined Sewer System</u></p> <p>The Discharger shall submit a System Characterization Report with a comprehensive characterization of the combined sewer system developed through records review, monitoring, modeling, and other means as appropriate to establish the existing conditions upon which the <u>updated-LTCP Consideration of Sensitive Areas Report (Task 3)</u> will be based. At a minimum, the System Characterization Report shall do <u>include</u> the following:</p> <ul style="list-style-type: none"> a. Include a <u>Thorough review description</u> of the entire combined sewer system, including how it responds <u>during a modeled typical year and</u> to various precipitation events (including 3-hour duration, 5-year and 10-year return frequency storms). <u>This description will consider with respect to</u> the volume and frequency of combined sewer system discharges and sewer overflows from the combined sewer system, <u>and</u>

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			<p>system are not relevant to, or mentioned, in the CSO Control Policy and implementing guidance. Sewer overflows do not reach surface waters, are caused by localized constraints and have no relationship to CSDs and the system’s ability to maximize storage and treatment.</p> <p>Please replace the requirement to identify water quality impacts of CSDs with a more holistic evaluation of information available on the relationship between CSDs and receiving water quality. The current provision’s focus on water quality impacts seems unnecessarily focused on analyses of the pollutant concentrations in CSDs, whereas the SFPUC has other types of data and information (e.g., receiving water monitoring and modeling) relevant to the relationship between CSDs and receiving water conditions.</p> <p>The SFPUC also requests an extension of the deadline to allow time to incorporate the Bayside drainage into these analyses. While the Bayside and Westside are hydraulically distinct, improvements must be identified and prioritized on a citywide basis. Extension of the deadlines will enable the SFPUC to undertake citywide analyses to better inform decision making.</p>	<p>characteristics of actual combined sewer discharges and sewer overflows from the combined sewer system, and their locations relative to sensitive areas, for at least the last 10 years;</p> <p>d. Describe any temporal or spatial trends of sewer overflows from the combined sewer system.</p> <p>e.d. Identify <u>A summary of available information on the relationship between CSDs and the receiving</u> water quality the impacts that result from combined sewer discharges (at a minimum, compare wet weather average and maximum discharge characteristics and receiving water monitoring data with Ocean Plan Table 1 water quality objectives); and</p> <p>f.e <u>Evaluate</u> combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency), including a description of any method used.</p> <p>Within 4<u>8</u> months of this Order’s effective date.</p>	<p>considering the impacts of climate change and sea level rise;</p> <p>b. <u>Description of</u> be each model used, including a discussion of model calibration and validation;</p> <p>c. Identify the <u>Location, frequency, and characteristics of actual combined sewer discharges and sewer overflows from the combined sewer system, and their locations relative to sensitive areas, for at least the last 10 years;</u></p> <p>d. Describe <u>Description of</u> any temporal or spatial trends of sewer overflows from the combined sewer system;</p> <p>e. Identify the water quality impacts that result from <u>Based on available information, evaluation of how combined sewer discharges affect receiving water quality.</u> At a minimum, <u>the Discharger shall</u> compare wet weather average and maximum discharge characteristics and receiving water monitoring data with Ocean Plan Table 1 water quality objectives); and</p> <p>f. <u>Evaluate</u> <u>Evaluation of</u> combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency), including a description of any method used.</p> <p>Regarding task “a” (i.e., description of combined sewer system and performance during various precipitation events), we acknowledge the utility of examining a typical year, but more is needed. <i>Combined Sewer Overflow (CSO) Control Policy</i> section II.C.1 states, “The permittee should adequately characterize through monitoring, modeling, and other means as appropriate, for a range of storm events, the response of</p>

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					<p>its sewer system to wet weather events including the number, location and frequency of CSOs, volume, concentration and mass of pollutants discharged and the impacts of the CSOs on the receiving waters and their designated uses.” A typical year reflects average conditions, but more extreme weather should also be evaluated. Modeling a typical year based on historical data does not account for potential changes in precipitation and sea level expected to result from climate change. The tentative order refers to a 3-hour duration, 5-year return frequency storm because San Francisco has committed to providing this level of service. The tentative order refers to a 3-hour duration, 10-year return frequency storm to allow San Francisco to evaluate whether it can provide a higher level of service.</p> <p>Understanding sewer overflows from the combined sewer system is essential to understanding system operations. U.S. EPA’s <i>Combined Sewer Overflows Guidance for Screening and Ranking</i> (August 1995, EPA 832-B-95-004) recommends considering human health threats, such as combined sewer overflows that enter city streets, homes, and businesses.</p> <p>San Francisco’s arguments that sewer overflows that do not reach surface waters bear no relationship to combined sewer discharges, have no impact on the combined sewer system’s ability to maximize storage and treatment, and are caused by local constraints are not supported. Sewer overflows from the combined sewer system can potentially reach surface waters, such as Lake Merced and the Pacific Ocean, can affect the system’s ability to maximize storage and treatment, and may mask system storage needs. In addition, sewer overflows</p>

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					<p>from the combined sewer may reflect improperly-functioning floatables controls or a miscalculation of the system’s storage capacity. If remedied, sewer overflows from the combined sewer system could actually increase combined sewer discharges. All these considerations underscore the importance of monitoring and reporting such overflows to properly implement the <i>Combined Sewer Overflow (CSO) Control Policy</i> and the Nine Minimum Controls.</p>
A.22	20	Table 7, Task 2	<p>The SFPUC requests replacement of the requirement to submit a Public Participation Plan with a requirement to submit a description of completed and planned public participation efforts related to capital planning, including planning related to CSDs. This change will provide the SFPUC flexibility in engaging the public to ensure that public outreach – like capital planning – is iterative and adaptive. The SFPUC already has a robust public engagement program and is concerned that the requirement to submit a Plan indicates that the SFPUC will not be able to deviate from that plan without resubmittal of another plan to the Regional Water Board and EPA.</p>	<p>2. Public Participation The Discharger shall submit a Public Participation Plan description of its completed and planned public participation efforts describing the process it will employ to actively involve the affected public in its decision-making process related to capital planning, including implementation of any additional to select updated long-term combined sewer system controls based on the results of the Consideration of Sensitive Areas Report. The affected public includes rate-payers (including rate-payers in separate sanitary sewer system service areas), industrial users, persons who use the receiving waters, and any other interested persons. The Public Participation Plan public participation efforts may include outreach through methods such as public meetings, direct mailers, billing inserts, press releases, postings of information on the Discharger’s website, and development of advisory committees. Within 48 months of this Order’s effective date.</p>	<p>We revised the tentative order as proposed, including extending the compliance date from 42 to 48 months.</p>
A.23	20	Table 7, Task 3	<p>The changes requested by the SFPUC are intended to more closely align the requirements of this task with the CSO</p>	<p>3. Consideration of Sensitive Areas Based on the results of the System Characterization Report, Tthe Discharger</p>	<p>Notwithstanding some exceptions as explained below, we revised the tentative</p>

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			<p>Control Policy, which requires post-LTCP assessment of discharges to sensitive areas. These changes also incorporate the cost and performance considerations of Task 4, and the implementation plan of Task 7 to reduce the number of specific, but strongly interrelated, tasks contained within Table 7.</p> <p>The SFPUC has evaluated an extensive range of alternatives for CSD reduction as part of its capital program and is currently moving forward with a project (real-time Operational Decision Support, or ODS) that may identify improvements to operation of existing infrastructure to further optimize performance. The requested deletion of the specific alternatives enumerated in the Tentative Order is intended to provide flexibility to the SFPUC to more efficiently build upon work done to date. If EPA and the Regional Water Board are concerned that the scope of alternatives may be inappropriately limited, the SFPUC is amenable to submitting a scoping plan, similar to that submitted by the Bay Area Clean Water Agencies for the Nutrient Watershed Permit (R2-2014-0014).</p> <p>Finally, the SFPUC also requests that CSD-004 be removed from the list of outfalls discharging to sensitive areas. This outfall is located at a very remote location that can only be reached by a lengthy and rugged walk at very low tides through the rocky intertidal zone. No recreational or shellfishing is known to occur at this location because of its remoteness. These characteristics are one of the reasons that this outfall was constructed for drainage in the early 1900s.</p>	<p>shall submit a Consideration of Sensitive Areas Report that evaluates <u>opportunities for improving reducing prioritizes, and proposes control alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges to sensitive areas</u> from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. The Consideration of Sensitive Areas Report shall include the following, at a minimum:</p> <ol style="list-style-type: none"> a. Provide updated water contact recreational use surveys, focusing particularly on recreational use following combined sewer discharges; b. <u>Evaluate Identify</u> control alternatives <u>such as increases in storage capacity, increases in treatment capacity, off-shore relocation, green infrastructure, and modifications to operation of existing infrastructure,</u> for each combined sewer discharge structure and the combined sewer system as a whole. including but not limited to the following: <ol style="list-style-type: none"> i. Green infrastructure and low impact development; ii. Increased storage within the combined sewer system; iii. Increased storage at the Oceanside Water Pollution Control Plant; iv. Increased treatment capacity at the Oceanside Water Pollution Control Plant; v. Operational changes to increase flows discharged at Discharge Point No. 001; vi. Increased pumping capacity at the Westside Pump Station; and 	<p>order similar to as proposed and postponed the compliance date from 42 to 48 months:</p> <p>Consideration of Sensitive Areas</p> <p><u>Based on the findings of the System Characterization Report (Task 1),</u> the Discharger shall submit a Consideration of Sensitive Areas Report that evaluates, prioritizes, and proposes control alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges <u>to sensitive areas</u> from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. The Consideration of Sensitive Areas Report shall include the following, at a minimum:</p> <ol style="list-style-type: none"> a. Provide updated water contact recreational use surveys, focusing particularly on recreational use following combined sewer discharges; b. <u>Identify Evaluate</u> control alternatives for each combined sewer discharge structure and the combined sewer system as a whole, including but not limited to the following: <ol style="list-style-type: none"> i. Green infrastructure and low impact development; ii. Increased storage within the combined sewer system <u>and;</u> iii. Increased storage at the Oceanside Water Pollution Control Plant; iiii. Increased treatment capacity at the Oceanside Water Pollution Control Plant; iv. Operational changes <u>to increase flows discharged at Discharge Point No. 001;</u> vi. Increased pumping capacity at the Westside Pump Station; and

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				<p>vii. Use of high rate treatment technologies and disinfection to minimize pollutant loads.</p> <p>c. Evaluate the practical and technical feasibility of the proposed alternatives;</p> <p>d. Using a model, simulate existing conditions and expected conditions after construction and operation of each proposed alternative, including how the alternative would be expected to affect receiving water quality and combined sewer discharge volumes and frequencies at each combined sewer discharge outfall, and incorporating consideration of climate change and sea level rise;</p> <p>e. Summarize <u>the feasibility, costs, and benefits of the evaluated alternatives;</u> <u>and</u></p> <p>e.f <u>Prioritize and propose for implementation the proposed alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 Identify, based on the information generated under Tasks 3.a through 3.ed, above, and report on any improvements to be included into the Discharger’s capital plan related to improvement of sensitive areas., and the cost and performance considerations and financial capabilities analysis required by Task 4. The identification and scheduling of improvements may consider costs relative to water quality and other public benefits, the Discharger’s financial capabilities, community affordability, related infrastructure needs, and other</u></p>	<p>vii. Use of high-rate treatment technologies and disinfection to minimize pollutant loads.</p> <p>c. Evaluate the practical and technical feasibility of the proposed alternatives;</p> <p>d. Using a model, simulate existing conditions and expected conditions after construction and operation of each proposed alternative, including how the alternative would be expected to affect water quality and combined sewer discharge volumes and frequencies at each combined sewer discharge outfall, and incorporating consideration of climate change and sea level rise; and</p> <p>e. <u>Evaluate the feasibility, costs, and benefits of the alternatives. Evaluate financial capabilities (e.g., using U.S. EPA’s <i>Combined Sewer Overflows, Guidance for Financial Capability Assessment and Schedule Development</i> [EPA 832-B-97-004, February 1997] or other appropriate guidance);</u></p> <p>f. <u>Consider costs relative to water quality and other public benefits, financial capabilities, other infrastructure needs, and integrated planning considerations, and prioritize and propose for implementation the proposed alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of discharges from Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007 based on Tasks 3.a through 3.ed, above, and the cost and performance considerations</u></p>

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				<p><u>appropriate integrated planning considerations.</u></p> <p>Within 482 months of this Order’s effective date.</p>	<p>and financial capabilities analysis required by Task 4; and</p> <p><u>g. Provide an implementation schedule that includes interim milestones.</u></p> <p>We retained the list of specific alternatives to consider because it indicates the breadth of analysis needed. If San Francisco is concerned that the scope of its analysis may not meet our expectations, we welcome San Francisco to submit a scoping plan for our consideration and feedback as it suggests.</p> <p>We retained the requirement to “prioritize and propose control alternatives” versus the proposed revision to “opportunities for improving” to be clear that we expect this task to result in tangible proposals.</p> <p>We retained the reference to U.S. EPA guidance regarding how to evaluate financial capabilities because it illustrates the scope of our expectations. The tentative order cites this guidance only as an example and explicitly allows San Francisco to use other appropriate guidance.</p>
A.24	20	Table 7, Task 4	Deletion of this task is requested because the SFPUC proposes that the cost and performance considerations be incorporated into Task 3, Consideration of Sensitive Areas.	<p>4.— Cost/Performance Considerations</p> <p>The Discharger shall submit cost and performance considerations for each alternative considered in the Consideration of Sensitive Areas Report. The Discharger shall include within this evaluation an analysis that determines where the increment of pollution reduction achieved diminishes compared to increased costs (i.e., the “knee of the curve”) and an analysis of its financial capabilities using EPA’s Combined Sewer Overflows, Guidance for Financial Capability Assessment and Schedule Development (EPA 832-B-97-004, February 1997) or other appropriate guidance.</p>	We revised the tentative order as proposed. As shown in our response to Comment A.23, we added a requirement to consider cost and performance to Task 3.

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A.25	21	Table 7, Task 5	<p>The changes requested to this section will ensure that SFPUC provides the Regional Water Board and EPA the desired documentation of the engineering rationale behind the provisions in VI.C.5.c.iv.</p> <p>Evaluation of opportunities to modify operation of existing infrastructure to increase wet weather storage and treatment has been added to the list of strategies to be evaluated under the Consideration of Sensitive Areas task (Task 3). As Task 3 includes specific analyses using a model to evaluate control alternatives, and these alternatives include modifications to operations, it is more fitting for the operations parameters be evaluated in Task 3.</p> <p>As noted in an earlier comment, please remove all references to sewer overflows in the combined system in this section. The occurrence of sewer overflows is not related to the system's ability to maximize treatment and storage except to the extent that they may indicate a reduction of in-line (collection system) storage due to FOG or sediment accumulation. As noted in the fact sheet, the collection system comprises a small percentage (approximately 3%) of the system's daily wet weather storage capacity.</p>	<p>5. Operational Plan</p> <p>a. The Discharger shall submit an Evaluation Documentation of Wet Weather Operations Report that evaluates whether changes to existing system operations can be made to maximize pollutant removal during and after each precipitation event, such as minimizing the frequency, volume, or duration of combined sewer discharges and sewer overflows from the combined sewer system. The Discharger shall identify propose a the set of operational parameters to be used as performance measures to ensure that wet weather operations maximize pollutant removal and minimize the frequency, volume, and duration of combined sewer discharges. The performance measures may include all or a portion of those listed in Provision VI.C.5.c.iv. At a minimum, the Discharger shall evaluate whether each operational requirement listed in Provision VI.C.5.c.iv is still appropriate, and if so, the Discharger shall provide the technical basis for that conclusion. The Discharger shall also consider additional performance metrics.</p> <p>b. Within 90 days of receiving written concurrence from the Regional Water Board Executive Officer and EPA pursuant to Provision VI.C.5.c.iv, the Discharger shall update its Operation and Maintenance Manual with any new or revised wet weather operational strategies, as required by Attachments D and G sections I.C (Duty to Mitigate) and I.D (Proper Operation and Maintenance).</p> <p>Within 12 <u>24</u> months of this Order's</p>	<p>Notwithstanding some exceptions as explained below, we revised the tentative order somewhat as proposed, postponed the compliance date from 12 to 24 months, and renumbered the task, making it Task 4. We also updated the reference to this task and its due date in Fact Sheet section VI.C.5.c of the tentative order.</p> <p>Operational Plan</p> <p>a. The Discharger shall submit an <u>Evaluation of Wet Weather Operations Report that evaluates whether changes to existing system operations can be made to maximize pollutant removal during and after each precipitation event, such as minimizing the frequency, volume, or duration of combined sewer discharges and sewer overflows from the combined sewer system. The Discharger shall</u> propose a set of operational parameters to be used as performance measures to ensure that wet weather operations maximize pollutant removal and minimize the frequency, volume, and duration of combined sewer discharges and sewer overflows from the combined sewer system. The performance measures may include all or a portion of those listed in Provision VI.C.5.c.iv <u>and shall include measures to evaluate compliance. At a minimum, the Discharger shall evaluate whether each operational requirement listed in Provision VI.C.5.c.iv is still appropriate, and if so, t</u> The Discharger shall provide the technical basis for <u>proposing new performance measures or retaining the existing ones. that conclusion. The</u></p>

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				effective date.	<p>Discharger shall also consider additional performance metrics.</p> <p>b. Within 90 days of receiving written concurrence from the Regional Water Board Executive Officer and U.S. EPA pursuant to Provision VI.C.5.c.iv, the Discharger shall update its Operation and Maintenance Manual, <u>implement the proposed performance measures in lieu of those in Provision VI.C.5.c.iv, and demonstrate compliance with any new or revised wet weather operational strategies, as required by Attachments D and G sections I.C (Duty to Mitigate) and I.D (Proper Operation and Maintenance).</u></p> <p>Provision VI.C.5.c.iv of the tentative order sets forth operational parameters used as performance measures to ensure that wet weather operations maximize pollutant removal and minimize the frequency, volume, and duration of combined sewer discharges. These performance measures have not been reconsidered for some time. This task requires San Francisco to reconsider them. We retained language that requires San Francisco to consider effects related to sewer overflows from the combined sewer system because operational changes to minimize sewer overflows from the combined system may increase flows from the authorized combined sewer discharge points. We also retained provisions allowing performance measures to be updated before the end of the permit term. Finally, we added a requirement for San Francisco to demonstrate compliance with any new performance measures.</p>

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A.26	21	Table 7, Task 7	Deletion of this task is requested because the SFPUC proposes that the schedule and related considerations be incorporated into Task 3, Consideration of Sensitive Areas. Because Task 3 contains in-depth analyses of potential control alternatives, this request will ensure all information relevant to identifying potential system improvements is included in a single document and will also reduce the number of deliverables.	7. Implementation Schedule The Discharger shall submit a draft Implementation Schedule with yearly milestones to implement the combined sewer system control selected based on the Consideration of Sensitive Areas Report. The duration of the implementation schedule shall be selected based on the results of the financial capability analysis required by Task 4. The implementation schedule may be phased based on the relative water quality benefits of the selected controls, the Discharger's financial capabilities, and other water quality related infrastructure improvements underway.	We revised the tentative order as proposed. As shown in our response to San Francisco Comment A.23, these requirements are now in Task 3.
A.27	21	Table 7, Task 8	The change requested is to clarify that changes to the existing post-construction monitoring program may not be needed. The current wording presumes that modifications to the current post-construction monitoring plan will be appropriate.	8. Post-Construction Compliance Monitoring Program The MRP contains post-construction compliance monitoring requirements. The Discharger shall submit a Post-Construction Compliance Monitoring Plan proposing modifications, <u>as appropriate</u> , to the MRP for the next permit term to verify compliance with applicable water quality standards and protection of designated uses, as well as to ascertain the effectiveness of combined sewer system controls. At a minimum, the Post-Construction Compliance Monitoring Plan shall evaluate whether any reduction or increase in monitoring, or alternative monitoring, is appropriate.	We revised the tentative order as proposed and renumbered the task, making it Task 5.
A.28	A-5	Sewer Overflow from the Combined Sewer System	The SFPUC requests these changes to reduce ambiguity and to bring the definition more explicitly into alignment with the definition of "excursion" in the Southeast Water Pollution Control Plant permit. Specifically, the changes requested clarify that "flow" is wastewater, and that SOCSS do not reach surface waters. Any discharge from the	Sewer Overflow from the Combined Sewer System Release or diversion of <u>any flows untreated or partially treated wastewater</u> from the combined sewer collection system <u>that does not reach surface waters</u> . Sewer overflows from the combined sewer system can occur in public rights of way or on private	We revised the tentative order only to clarify that this definition pertains to the release or diversion of untreated or partially-treated wastewater or combined wastewater and stormwater. Limiting the definition to releases or diversions not reaching surface waters would circumvent the requirement in Provision VI.C.5.viii(b) of the tentative order

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			combined sewer system that reaches surface waters is and has always been reported under the requirements of Attachment G.	property. Sewer overflows from the combined sewer system do not include: (i) releases due to failures in privately-owned sewer laterals, (ii) overflows resulting solely from storm events in excess of the system's design capacity where the system is otherwise operated as designed, or (iii) authorized combined sewer discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007, or discharges covered by Attachment G.	to report such discharges via the CIWQS database. We also did not exclude sewer overflows from the combined sewer system resulting from storms exceeding the system's design capacity. Understanding overflows resulting from capacity limitations is critical to evaluate whether the system's capacity is sufficient. Moreover, such overflows could pose human health concerns equal to or greater than those related to blockages or infrastructure failures. In any event, the precise cause of a particular sewer overflow from the combined sewer system would not be evident without monitoring and reporting. We revised Attachment A of the tentative order as follows: Sewer Overflow from the Combined Sewer System Release or diversion of untreated or partially-treated wastewater or combined wastewater and stormwater any flows from the combined sewer collection system. Sewer overflows from the combined sewer system can occur in public rights of way or on private property. Sewer overflows from the combined sewer system do not include releases due to failures in privately-owned sewer laterals or authorized combined sewer discharges at Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, or CSD-007.
A.29	E-2	I.C.	DMR-QA studies are currently electronically submitted by e-mail to the State Water Board QA Officer. SFPUC requests that this submittal option be recognized in the permit.	C. The Discharger shall ensure that results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or most recent Water Pollution Performance Evaluation Study are submitted annually by either sending an electronic copy to the State Water Board Quality Assurance	We revised the tentative order similar to as proposed: The Discharger shall ensure that results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or most recent Water Pollution Performance

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				Officer or to the State Water Board at the following address...	Evaluation Study are submitted annually to the State Water Board at the following address or as otherwise directed :																
A.30	E-3	Table E-1	SFPUC requests that the clarification be added to monitoring location EFF-001D because it is commonly referred to among SFPUC staff as “decant”.	<p>Table E-1. Monitoring Locations</p> <table border="1"> <thead> <tr> <th>Monitoring Location Type</th> <th>Monitoring Location Name</th> </tr> </thead> <tbody> <tr> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Westside Transport/Storage Structure Effluent (wet weather) (previously identified as “decant”)</td> <td>EFF-001D</td> </tr> <tr> <td>⋮</td> <td>⋮</td> </tr> </tbody> </table>	Monitoring Location Type	Monitoring Location Name	⋮	⋮	Westside Transport/Storage Structure Effluent (wet weather) (previously identified as “decant”)	EFF-001D	⋮	⋮	<p>We revised the tentative order similar to as proposed:</p> <table border="1"> <thead> <tr> <th>Monitoring Location Type</th> <th>Monitoring Location Name</th> </tr> </thead> <tbody> <tr> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Westside Transport/Storage Structure Effluent (wet weather) (identified in the previous order as “decant”)</td> <td>EFF-001D</td> </tr> <tr> <td>⋮</td> <td>⋮</td> </tr> </tbody> </table>	Monitoring Location Type	Monitoring Location Name	⋮	⋮	Westside Transport/Storage Structure Effluent (wet weather) (identified in the previous order as “decant”)	EFF-001D	⋮	⋮
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A.31	E-3	Table E-1	See detailed comments in Attachment D.	<table border="1"> <thead> <tr> <th>Monitoring Location Type</th> <th>Monitoring Location Name</th> <th>Monitoring Location Description ^[1]</th> </tr> </thead> <tbody> <tr> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Combined Sewer Discharge Effluent</td> <td>EFF-CSD-1</td> <td>A monitoring location representative of combined sewer discharges from the Westside Transport/Storage Structure.</td> </tr> </tbody> </table>	Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]	⋮	⋮	⋮	Combined Sewer Discharge Effluent	EFF-CSD-1	A monitoring location representative of combined sewer discharges from the Westside Transport/Storage Structure.	<p>We revised the tentative order similar to as proposed (see our response to San Francisco Comment D.4 related to “Combined Sewer Discharge Monitoring”).</p>							
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Combined Sewer Discharge Effluent	EFF-CSD-1	A monitoring location representative of combined sewer discharges from the Westside Transport/Storage Structure.																			

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				Combined Sewer Discharge Effluent	EFF-CSD-1	A- representative monitoring location for all waste tributary to Discharge Point No. CSD-001.	
				Combined Sewer Discharge Effluent	EFF-CSD-2	A- representative monitoring location for all waste tributary to Discharge Point Nos. CSD-002 and CSD-003.	
				Combined Sewer Discharge Effluent	EFF-CSD-7	A- representative monitoring location for all waste tributary to Discharge Point Nos. CSD-005, CSD-006, and CSD-007.	
				⋮	⋮	⋮	
A.32	E-4	Table E-1	The correct longitude for offshore receiving water Station 4 is -122.59500°, not -122.59001°, as converted from the current Oceanside permit (i.e., -122° 35' 42.00").	Monitoring Location Type	Monitoring Location Name	Monitoring Location Description ^[1]	We revised the tentative order as proposed to correct the longitude for Offshore Receiving Water Monitoring Location Station 4.
				⋮	⋮	⋮	

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				<table border="1"> <tr> <td>Offshore Receiving Water</td> <td>Station 4</td> <td>Offshore monitoring program station location. <i>Longitude - 122.59001</i> <i>59500°, Latitude 37.71167°</i></td> </tr> <tr> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> </table>	Offshore Receiving Water	Station 4	Offshore monitoring program station location. <i>Longitude - 122.59001</i> <i>59500°, Latitude 37.71167°</i>	⋮	⋮	⋮	
Offshore Receiving Water	Station 4	Offshore monitoring program station location. <i>Longitude - 122.59001</i> <i>59500°, Latitude 37.71167°</i>									
⋮	⋮	⋮									
A.33	E-6	Table E-2, CBOD ₅ Monitoring	<p>When testing CBOD₅, samples are diluted at different dilutions based on a predicted concentration range. Despite preparing samples at various dilutions, this testing method has the potential to result in invalid test results if the actual concentration is not within the predicted concentration range. Predicting a concentration range is particularly difficult during wet weather because it is difficult to estimate how much stormwater is contributing to the influent, and stormwater typically has much lower CBOD₅ concentrations than does wastewater. SFPUC requests clarification from the Regional Board that it does not constitute a violation if the influent is sampled at the frequency specified and tested for CBOD, but the test results are deemed invalid or inconclusive due to CBOD₅ concentrations out of the expected range and SFPUC is not able to resample within the same week. SFPUC would report such results as invalid in the corresponding self-monitoring report cover letter.</p>	N/A	<p>We did not revise the tentative order. Valid samples are required to comply with monitoring requirements. Federal regulations state, “Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.” (40 C.F.R. § 122.41(j)(1).)</p>						
A.34	E-6 – E-7	IV.A.1 and IV.A.2, Table E-3 and Table E-4	<p>SFPUC requests the addition of a section and table for both dry and wet weather plant effluent monitoring for flow, CBOD₅, TSS and pH to clarify minimum sampling frequency for these parameters. Dry weather</p>	<p>1. Dry and Wet Weather. The Discharger shall monitor the plant effluent during dry and wet weather at Monitoring Locations EFF-001A and EFF-001B as follows:</p>	<p>We revised the tentative order as proposed, with the following two exceptions. The text of the new section IV.A.1 is as follows:</p> <p>Dry and Wet Weather. The Discharger shall monitor plant effluent at Monitoring</p>						

#	Page	Section	Comment	Proposed Revisions	Response																																																				
			<p>monitoring is currently separate from wet weather monitoring. It is SFPUC's interpretation that, even if there is a wet weather event in any given week, dry weather samples at Monitoring Location EFF-001A must be taken at the required minimum sampling frequency. However, SFPUC may not be able to comply with these frequencies at times because the requirements are weather-dependent. For instance, if a wet weather event lasts three days, there would not be enough days in the week to collect the minimum five samples required for TSS at Monitoring Location EFF-001A.</p> <p>SFPUC Laboratory staff currently schedule lab analyses for weekly monitoring parameters such as TSS, pH, and CBOD₅ randomly to better characterize the effluent. During the rainy season, there may be weeks in which TSS monitoring is scheduled for Monday-Thursday and Saturday, but if Friday and Saturday are wet weather days, TSS would have been monitored only four times instead of the required five times per week.</p> <p>Accordingly, SFPUC proposes the inclusion of a footnote similar to Table E-2, footnote [2], to clarify that the minimum sampling frequency is satisfied regardless of whether the results correspond to EFF-001A or EFF-001B. In addition, SFPUC requests the addition of a footnote to clarify that monitoring requirements in the new table may be used to satisfy similar EFF-001B monitoring requirements in Table E-4 of the Tentative Order.</p> <p>The suggested revisions shown are also consistent with Table E-4 of the Tentative Order in allowing use of COD in lieu of CBOD during wet weather.</p>	<p>Table E-3. Plant Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>CBOD₅^[2]</td> <td>mg/L</td> <td>C-24</td> <td>1/Week</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>5/Week</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Continuous or Grab</td> <td>1/Week</td> </tr> </tbody> </table> <p><u>Abbreviations:</u> MG = million gallons MGD = million gallons per day mg/L = milligrams per liter</p> <p><u>Sample Types and Frequencies:</u> Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Week = once per week 5/Week = five times per week</p> <p><u>Footnotes:</u> ^[1] <u>The following information shall be reported in monthly self-monitoring reports:</u></p> <ul style="list-style-type: none"> • <u>Daily average flow (MGD)</u> • <u>Total monthly flow volume (MG)</u> ^[2] <u>The Discharger may monitor Chemical Oxygen Demand at Monitoring Location EFF-001B in lieu of CBOD₅ during wet weather.</u> ^[3] <u>The minimum sampling frequency is the total number of effluent samples to be collected during the specified sampling period, including samples collected during dry and wet weather at Monitoring Locations EFF-001A and EFF-001B.</u>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow ^[1]	MG/ MGD	Continuous	Continuous/ D	CBOD ₅ ^[2]	mg/L	C-24	1/Week	TSS	mg/L	C-24	5/Week	pH	standard units	Continuous or Grab	1/Week	<p><u>Location EFF-001A during dry weather and at Monitoring Location EFF-001B during wet weather as follows:</u></p> <p>We revised Table E-4 (now Table E-5) as follows:</p> <p>Table E-45. Wet Weather Plant Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Flow^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/D</td> </tr> <tr> <td>Chemical Oxygen Demand</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Grab</td> <td>1/Month</td> </tr> <tr> <td>Duration of Blending^[1,2]</td> <td>minutes</td> <td>Calculated</td> <td>Continuous /D</td> </tr> <tr> <td>Volume of Blended Wastewater Discharged^[1,2]</td> <td>MG</td> <td>Calculated</td> <td>Continuous /D</td> </tr> <tr> <td>Ocean Plan Table 1 Pollutants^[2,3]</td> <td>µg/L</td> <td>C-24^[3,4]</td> <td>1/Year</td> </tr> </tbody> </table> <p><u>Abbreviations:</u> MG = million gallons MGD = million gallons per day mg/L = milligrams per liter µg/L = micrograms per liter</p> <p><u>Sample Types and Frequencies:</u></p>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Flow ^[1]	MG/ MGD	Continuous	Continuous/D	Chemical Oxygen Demand	mg/L	C-24	1/Month	TSS	mg/L	C-24	1/Month	pH	standard units	Grab	1/Month	Duration of Blending ^[1,2]	minutes	Calculated	Continuous /D	Volume of Blended Wastewater Discharged ^[1,2]	MG	Calculated	Continuous /D	Ocean Plan Table 1 Pollutants ^[2,3]	µg/L	C-24 ^[3,4]	1/Year
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				<p>12. Dry Weather. During dry weather, the Discharger shall monitor plant effluent at Monitoring Location EFF-001A as follows:</p> <p>Table E-34. Dry Weather Plant Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow^[4]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>CBOD₅</td> <td>mg/L</td> <td>C-24</td> <td>1/Week</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>5/Week</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Continuous or Grab</td> <td>1/Week</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Remaining Ocean Plan Table 1 Pollutants^[2]</td> <td>μg/L</td> <td>C-24^[32]</td> <td>1/Year</td> </tr> </tbody> </table> <p>Abbreviations: MG = million gallons MGD = million gallons per day ... Sample Types and Frequencies: Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Week = once per week 5/Week = five times per week ...</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow ^[4]	MG/ MGD	Continuous	Continuous/ D	CBOD ₅	mg/L	C-24	1/Week	TSS	mg/L	C-24	5/Week	pH	standard units	Continuous or Grab	1/Week	⋮				Remaining Ocean Plan Table 1 Pollutants ^[2]	μg/L	C-24 ^[32]	1/Year	<p>Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Month = once per month 1/Year = once per year</p> <p>Footnotes: ^[4] The following information shall be reported in monthly self-monitoring reports: <ul style="list-style-type: none"> • Daily average flow (MGD) • Total monthly flow volume (MG) ^[2] Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. For each <u>blending event day on which blending occurs</u>, the Discharger shall report the duration of blending and the volume of primary-only-treated wastewater blended. ^[32] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. ^[43] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.</p> <p>Accordingly, we renumbered the subsequent tables in Attachment E and updated references to those tables throughout the tentative order.</p>
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				<p>Footnotes:</p> <p>†† The following information shall be reported in monthly self-monitoring reports:</p> <ul style="list-style-type: none"> • Daily average flow (MGD) • Total monthly flow volume (MG) <p>^[21] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity.</p> <p>^[22] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.</p> <p>23. Wet Weather. During wet weather, the Discharger shall monitor plant effluent at Monitoring Location EFF-001B as follows:</p> <p>Table E-45. Wet Weather Plant Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow^{††}</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>Chemical Oxygen Demand^[1]</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>TSS^[1]</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>pH^[1]</td> <td>standard units</td> <td>Grab</td> <td>1/Month</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Abbreviations: MG = million gallons MGD = million gallons per day mg/L = milligrams per liter µg/L = micrograms per liter</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow^{††}	MG/ MGD	Continuous	Continuous/ D	Chemical Oxygen Demand ^[1]	mg/L	C-24	1/Month	TSS ^[1]	mg/L	C-24	1/Month	pH ^[1]	standard units	Grab	1/Month	⋮				
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Chemical Oxygen Demand ^[1]	mg/L	C-24	1/Month																										
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pH ^[1]	standard units	Grab	1/Month																										
⋮																													

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				<p><u>Sample Types and Frequencies:</u> Continuous – measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Month = once per month 1/Year = once per year</p> <p><u>Footnotes:</u> [1]-The following information shall be reported in monthly self-monitoring reports:</p> <ul style="list-style-type: none"> • Daily average flow (MGD) • Total monthly flow volume (MG) <p><u>Effluent monitoring conducted in accordance with Table E-3 may be used to satisfy Table E-5 wet weather effluent monitoring requirements.</u></p> <p>...</p>																									
A.35	E-7 – E-8	Table E-4, Footnote 2	<p>SFPUC requests a minor revision to the reporting protocol for the volume and duration of primary-treated wastewater during wet weather blending events. The requested change is to report volume and duration of blending once per <u>day</u> rather than once per <u>event</u>. For small wet weather events, blending events can occur multiple times on a single day, since rain events may produce multiple flow peaks. For larger wet weather events, blending events have the potential to span multiple days. Binning the volumes and durations of these events into one value per day will reduce the potential for confusion in the reporting database.</p>	<p>Table E-4. Wet Weather Plant Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Flow ^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous /D</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Duration of Blending ^[2]</td> <td>minutes</td> <td>Calculated</td> <td>Continuous /D</td> </tr> <tr> <td>Volume of Blended Wastewater Discharged ^[2]</td> <td>MG</td> <td>Calculated</td> <td>Continuous /D</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>...</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Flow ^[1]	MG/ MGD	Continuous	Continuous /D	⋮				Duration of Blending ^[2]	minutes	Calculated	Continuous /D	Volume of Blended Wastewater Discharged ^[2]	MG	Calculated	Continuous /D	⋮				<p>As shown in our response to San Francisco Comment A.34, we revised the tentative order as proposed (Table E-4 is now Table E-5). The change clarifies that San Francisco must report for each day the duration of blending and the volume of primary-only-treated wastewater blended.</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																										
Flow ^[1]	MG/ MGD	Continuous	Continuous /D																										
⋮																													
Duration of Blending ^[2]	minutes	Calculated	Continuous /D																										
Volume of Blended Wastewater Discharged ^[2]	MG	Calculated	Continuous /D																										
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				<p><u>Footnotes:</u></p> <p>...</p> <p>[2] Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. For each <u>day on which</u> blending <u>occurs event</u>, the Discharger shall report the duration of blending and the volume of primary-only-treated wastewater blended.</p> <p>...</p>																						
A.36	E-8 – E-10	IV.B.1. and IV.B.2.	Regarding discharge monitoring for the Westside Transport/Storage Structures, SFPUC requests that the language requiring a sample be collected within two hours of discharge commencement be relocated to avoid confusion. Sample collection staff may misinterpret the narrative language to indicate that samples must be collected for every discharge event. Moreover, the language conflicts with footnote [3] of Table E-5 where the former requires sampling within both two hours and the latter requiring a grab sample for discharges that last less than one hour. See Comment No. 38 for proposed revisions to Table E-5 footnote [3].	<p>Westside Transport/Storage Structure Effluent. During wet weather, the Discharger shall monitor Westside Transport/Storage Structure effluent at Monitoring Location EFF-001D as shown in Table E-5. The Discharger shall begin collecting aliquots or grab samples within two hours of commencing discharge from the Westside Transport/Storage Structure directly to Discharge Point No. 001.</p>	We revised the tentative order as proposed. We moved the deleted text to Table E-5 (now Table E-6) footnote 3 to clarify that monitoring is not required for every discharge event (see our response to San Francisco Comment A.38).																					
A.37	E-8 – E-9	Table E-5	SFPUC requests this modification because decant discharges often last less than 24 hours and it is difficult to predict the duration of decant discharge. SFPUC requests flexibility in terms of sampling intervals and duration.	<p>Table E-5. Westside Transport/Storage Structure Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> </tr> </thead> <tbody> <tr> <td>Flow Volume ^[1]</td> <td>∴</td> <td>Continuous</td> </tr> <tr> <td>TSS</td> <td>∴</td> <td>E-24 C-X ^[3]</td> </tr> <tr> <td>Ammonia, total</td> <td>∴</td> <td>E-24 C-X ^[3]</td> </tr> <tr> <td>Arsenic</td> <td>∴</td> <td>E-24 C-X ^[3]</td> </tr> <tr> <td>Cadmium</td> <td>∴</td> <td>E-24 C-X ^[3]</td> </tr> <tr> <td>Copper</td> <td>∴</td> <td>E-24 C-X ^[3]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Flow Volume ^[1]	∴	Continuous	TSS	∴	E-24 C-X ^[3]	Ammonia, total	∴	E-24 C-X ^[3]	Arsenic	∴	E-24 C-X ^[3]	Cadmium	∴	E-24 C-X ^[3]	Copper	∴	E-24 C-X ^[3]	We revised the tentative order as proposed (Table E-5 is now Table E-6). This revision provides San Francisco flexibility to determine sampling intervals and durations, while maintaining a one-hour maximum sampling interval. The change recognizes the difficulties associated with implementing a wet weather monitoring plan. Shorter compositing intervals may actually reveal higher pollutant concentrations by capturing more “first flush” effects. The change is consistent with U.S. EPA’s <i>Combined Sewer Overflows Guidance for Monitoring and</i>
Parameter	Units	Sample Type																								
Flow Volume ^[1]	∴	Continuous																								
TSS	∴	E-24 C-X ^[3]																								
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Lead	⋮	C-24 <u>C-X</u> ^[3]																					
Nickel	⋮	C-24 <u>C-X</u> ^[3]																					
Selenium	⋮	C-24 <u>C-X</u> ^[3]																					
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Remaining Ocean Plan Table 1 Pollutants ^[2]	⋮	C-24 <u>C-X</u> ^[3,4]																					
A.38	E-8 – E-9	Table E-5, Footnote 3	SFPUC requests revisions to the footnote for consistency with other monitoring requirements in the section. Removing the prescribed intervals between samples is consistent with the sample type modification proposed above (see Comment No. 37). The second sentence is removed and the requirement to collect a sample with two hours of discharge is added here per Comment No. 36.	^[3] If the discharge lasts less than 24 hours, the Discharger shall sample <u>at equal intervals</u> for as long as possible at equal one hour intervals and report record the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample. <u>The Discharger shall begin collecting aliquots or grab samples within two hours of commencing discharge from the Westside Transport/Storage Structure directly to Discharge Point No. 001.</u>	We revised the tentative order as proposed (Table E-5 is now Table E-6). See our responses to San Francisco Comments A.36 and A.37.																		
A.39	E-9 – E-10	IV.B.2	See detailed comments in Attachment D for the request to designate a single CSD monitoring location, EFF-CSD, consistent with the current permit. SFPUC requests that pH be deleted from Table E-6. The method hold time of 15 minutes cannot be realistically achieved because the occurrence of a CSD cannot be predicted and on-call staff will not be able to	a. During combined sewer discharge events, the Discharger shall monitor combined sewer discharge effluent at <u>Monitoring Location EFF-CSD Monitoring Locations EFF-CSD 1, EFF-CSD 2, and EFF-CSD 7</u> as follows:	We revised the tentative order as proposed with one exception; we revised Table E-6 (now Table E-7) footnote 1 as follows: The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity, <u>and volatile organic compounds. The Discharger may monitor for total</u>																		

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			<p>collect and analyze a sample under this hold time constraint. The installation of a continuous pH sensor is not practical because of the episodic nature of a CSD event; if left dry for extended periods of time, the analyzer will not function correctly.</p> <p>SFPUC requests a modification to the “C-X” sample type because CSDs typically last less than 24 hours and it is difficult to predict the duration of the discharge. SFPUC requests flexibility in terms of sampling intervals and duration to maximize the likelihood of collecting sufficient volume for all required analyses in light of the highly variable and uncertain duration of CSDs.</p> <p>SFPUC requests edits to Table E-6 footnote [1] to exclude volatile organic compounds (VOCs), and hexavalent chromium. Field samplers utilize a peristaltic (vacuum) pump, which precludes our ability to follow the sample collection requirements (i.e., grab samples) in the required laboratory methods for VOCs. For hexavalent chromium, the method hold time is 24 hours, which may not be achievable during certain wet weather events. SFPUC prefers to monitor total chromium instead of hexavalent chromium. SFPUC requests edits to Table E-6 footnote [2] because CSDs on the Westside typically do not last more than three hours. Aliquots collected at one-hour intervals are unlikely to generate sufficient sample volume for all required analyses.</p>	<p>Table E-6. Combined Sewer Discharge Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Grab</td> <td>3/Year^[4]</td> </tr> <tr> <td>Ammonia, total</td> <td>mg/L as N</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Arsenic</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Cadmium</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Copper</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Lead</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Nickel</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Selenium</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Silver</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Zinc</td> <td>µg/L</td> <td>C-24 C-X_[2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Remaining Ocean Plan Table 1 Pollutants^[1]</td> <td>µg/L</td> <td>C-24 C-X_[2,3]</td> <td>1/Year^[4]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	TSS	mg/L	C-24 C-X _[2]	3/Year ^[4]	pH	standard units	Grab	3/Year ^[4]	Ammonia, total	mg/L as N	C-24 C-X _[2]	3/Year ^[4]	Arsenic	µg/L	C-24 C-X _[2]	3/Year ^[4]	Cadmium	µg/L	C-24 C-X _[2]	3/Year ^[4]	Copper	µg/L	C-24 C-X _[2]	3/Year ^[4]	Lead	µg/L	C-24 C-X _[2]	3/Year ^[4]	Nickel	µg/L	C-24 C-X _[2]	3/Year ^[4]	Selenium	µg/L	C-24 C-X _[2]	3/Year ^[4]	Silver	µg/L	C-24 C-X _[2]	3/Year ^[4]	Zinc	µg/L	C-24 C-X _[2]	3/Year ^[4]	Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C-24 C-X _[2,3]	1/Year ^[4]	<p>chromium in lieu of hexavalent chromium.</p> <p>Similarly, we revised Table E-3 footnote 2 (now Table E-4 footnote 1), Table E-4 footnote 3 (now Table E-5 footnote 2), Table E-5 (now Table E-6) footnote 2, and Table E-7 (now Table E-8) footnote 2 as follows:</p> <p>The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. The Discharger may monitor for total chromium in lieu of hexavalent chromium.</p> <p>We agree with the proposal to eliminate the pH monitoring requirement because combined sewer discharges are not expected to significantly alter the pH of the Pacific Ocean. See our response to San Francisco Comment D.4 related to “Combined Sewer Discharge Monitoring” for additional revisions to this table.</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																																																						
TSS	mg/L	C-24 C-X _[2]	3/Year ^[4]																																																						
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Zinc	µg/L	C-24 C-X _[2]	3/Year ^[4]																																																						
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				<p>...</p> <p><u>Sample Types and Frequencies:</u> C-24 = 24-hour composite C-X = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until sufficient sample volume for the required analyses are completed.</p> <p>...</p> <p><u>Footnotes:</u> [1] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity, <u>volatile organic compounds, and hexavalent chromium.</u> [2] If the discharge lasts less than 24 hours, the Discharger shall sample for as long as possible at equal one-hour intervals and report <u>record</u> the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample.</p>	
A.40	E-12, E-13	V.A.3 and V.C	<p>SFPUC asks that whole effluent chronic toxicity retesting or accelerated monitoring be required “as soon as possible,” the same requirement as the current permit, rather than “within seven days.” SFPUC performs chronic toxicity tests using wild-caught marine organisms provided by a commercial supplier in southern California. Test organisms are not always immediately available, depending on ocean and weather conditions, and wet weather days may preclude immediate retesting as EFF-001C reflects dry weather only. As a result, seven days is insufficient time to reliably begin a new test.</p>	<p>A. Methodology</p> <p>...</p> <p>3. If an effluent toxicity test does not meet all test acceptability criteria in the test methods manual, the Discharger shall resample and retest within seven days <u>as soon as possible.</u></p> <p>...</p> <p>C. Accelerated Monitoring</p> <p>1. If a chronic bioassay test indicates a violation of the chronic toxicity effluent limitation, the Discharger shall retest within five days of receiving test results, or within seven days if the sample is contracted out to a commercial laboratory <u>as soon as possible.</u> Accelerated monitoring shall consist of four toxicity tests conducted at</p>	<p>We revised Attachment E section V.A.3 of the tentative order to require retesting within 14 days if test acceptability criteria are not met:</p> <p>If an effluent toxicity test does not meet all test acceptability criteria in the test methods manual, the Discharger shall resample and retest within 14 <u>seven</u> days.</p> <p>The 14-day timeframe provides more flexibility and is consistent with other California coastal discharge permits (i.e., Point Loma, permit number CA0107409; Hyperion, permit number CA0109991; Edward C. Little Water Recycling Facility, permit number CA0063401; and Orange County Sanitation District Reclamation Plants, permit number CA0110604).</p> <p>To meet this 14-day timeframe, San Francisco could use a contract laboratory if test organisms are unavailable at San</p>

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				<p>approximately two-week intervals. The Discharger shall return to routine monitoring if all four monitoring test results are “Pass.”</p>	<p>Francisco’s in-house laboratory. Commercial laboratories are able to turn around test results within 14 days. Alternatively, San Francisco could obtain test organisms from other commercial suppliers.</p> <p>We did not revise Attachment E section V.C.1 of the tentative order. If the chronic toxicity effluent limit is violated, re-testing within 5 or 7 days is essential to ensure that the discharge does not remain toxic. This requirement is also consistent with the other California coastal discharge permits listed above.</p>
A.41	E-15	V.F.4	<p>SFPUC requests the removal of the requirement to conduct the screening study during consecutive months. The effluent limits for chronic toxicity only apply during dry weather, so the screening must also be conducted during dry weather. Removing the requirement to conduct the screening study during consecutive months will make it easier to schedule the test, which is already constrained by the availability of wild-collected marine organisms.</p>	<p>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.</p>	<p>We revised the tentative order similar to as proposed:</p> <p>Stage 2 shall consist of a minimum of two test batteries <u>initiated in different calendar months</u> conducted monthly using the three most sensitive species determined based on the stage 1 test results.</p>
A.42	E-16	V.F.6	<p>SFPUC requests a change in the maximum concentration of the dilution series stipulated for the chronic toxicity screening test, from 100% to 75% effluent.</p> <p>Conducting the test on marine organisms with 100% effluent will require adjusting the salinity using commercial-grade crystallized sea salt. In contrast, SFPUC’s typical test procedure is to adjust the salinity using seawater brine made from Pacific Ocean water. Using locally-produced brine is preferable for three reasons: (1) Brine is more representative of the receiving water, (2), salt addition can create artificial toxicity, and (3) data for this test using sea salts are</p>	<p>6. The Discharger shall conduct screening tests at 100 <u>75</u>, 20, 0.67, 0.37, and 0.17 percent effluent.</p>	<p>We revised the tentative order as proposed. The change is necessary because San Francisco cannot conduct the tests on 100 percent effluent.</p>

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			<p>not available so using salt crystals instead of brine is considered provisional per EPA/600/R-95-136.</p> <p>The highest-concentration test that can be conducted using brine for salinity adjustment is 75% effluent. SFPUC believes that the 75% effluent solution will provide a satisfactory endpoint for assessing test organism sensitivity.</p>																														
A.43	E-16	Table E-10 and Table E-11	<p>The Tentative Order includes monitoring requirements of three fecal indicator bacteria (FIB) for shoreline monitoring. SFPUC requests retaining the three FIB as in the current Oceanside permit - that is, replace fecal coliform with <i>E. coli</i>. Title 17 CCR § 7958 states the minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas are based on single sample results for total coliform, fecal coliform, or enterococcus bacteria, indicating that any one of these parameters can be used an indicator of beach health. It is unclear why all three of these parameters need to be monitored.</p> <p>In addition, the turnaround time for <i>E. coli</i> results is less than that for fecal coliform, allowing staff to make posting and de-posting decisions sooner. The Colilert test, which simultaneously detects and quantifies both total coliform and <i>E. coli</i>, provides final results within 18 hours. In contrast, the additional laboratory analysis (Multiple-Tube Fermentation) for fecal coliform will require further staff coordination, more laboratory staff time, and additional material costs, and final results are not available until 48-72 hours after the test. The long duration of the fecal coliform incubation period renders results of limited utility for beach posting decisions.</p>	<p>Table E-10. Ambient Shoreline Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Enterococcus^[1]</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> <tr> <td>Fecal coliform-<i>E. coli</i></td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> <tr> <td>Total coliform</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> </tbody> </table> <p>...</p> <p>Table E-11. Post-CSD Event Shoreline Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Enterococcus^[1]</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Day^[3]</td> </tr> <tr> <td>Fecal coliform-<i>E. coli</i></td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Day^[3]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Week	Fecal coliform - <i>E. coli</i>	MPN/100 mL ^[2]	Grab	1/Week	Total coliform	MPN/100 mL ^[2]	Grab	1/Week	Parameter	Units	Sample Type	Minimum Sampling Frequency	Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Day ^[3]	Fecal coliform - <i>E. coli</i>	MPN/100 mL ^[2]	Grab	1/Day ^[3]	<p>We did not revise the tentative order. We retained fecal coliform monitoring because the Ocean Plan, as recently amended in 2018, includes fecal coliform water quality objectives for water contact recreation. California-specific epidemiological studies suggest fecal coliform may be a better indicator of gastrointestinal illness than enterococci during certain types of exposure and environmental conditions (State Water Board, <i>Comment Summary and Responses, Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy and Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy</i>, 2018). We did not add <i>E. coli</i> monitoring because <i>E. coli</i> is a better indicator for fresh water recreational use. Monitoring all three indicators is retained because the Ocean Plan includes enterococcus water quality objectives for water contact recreation and total coliform water quality objectives for shellfish harvesting. Monitoring the three indicators is also consistent with other California coastal discharge permits (i.e., Point Loma, NPDES permit number CA0107409; Hyperion, NPDES permit number CA0109991; and Orange County</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																														
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Standard Observations ^[4]	---	---	1/Day ^[3]																																						
A.44	E-17	Table E-11, Footnote [4]	SFPUC requests minor modifications to the reporting requirements for post-CSD shoreline monitoring in Table E-11, Footnote 4. Standard observations for Beach and Shoreline monitoring are listed in Attachment G section III.B.3, not Attachment G section III.B.1. In addition, SFPUC notes that it is infeasible to estimate the spatial extent of wastewater present in the surf zone. In lieu of estimating the size of the affected area, SFPUC will report the event duration and estimate volume of CSDs, as required by Attachment E section IV.2.b.	^[4] Standard observations are defined in Attachment G section III.B.1 III.B.3 and shall include any apparent fish kills. The estimated size of the affected area is not required.	We revised the tentative order as proposed. The change clarifies that Table E-11 (now Table E-12) requires standard observations of beaches or shorelines, and it allows San Francisco to monitor combined sewer discharge duration and volume in lieu of estimating the size of the affected area.																																				
A.45	E-18	Table E-12	SFPUC requests removal of molybdenum, organic nitrogen, ammonia nitrogen, and total solids from this table, because monitoring of these constituents is not required under the pretreatment program. SFPUC will continue to monitor these constituents under the biosolids land application program.	<p>Table E-12. Pretreatment and Biosolids Monitoring</p> <table border="1"> <tr> <td>Constituents</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Molybdenum</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Organic Nitrogen</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Ammonia Nitrogen</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Total Solids</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> </table>	Constituents	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	Molybdenum	⋮	⋮	⋮	⋮	⋮	Organic Nitrogen	⋮	⋮	⋮	⋮	⋮	Ammonia Nitrogen	⋮	⋮	⋮	⋮	⋮	Total Solids	⋮	⋮	⋮	⋮	⋮	We did not revise the tentative order. Table E-12 (now Table E-13) of the tentative order is for both pretreatment and biosolids monitoring. As noted in the comment, molybdenum, organic nitrogen, ammonia nitrogen, and total solids must be monitored for land application of biosolids.
Constituents	⋮	⋮	⋮	⋮	⋮																																				
⋮	⋮	⋮	⋮	⋮	⋮																																				
Molybdenum	⋮	⋮	⋮	⋮	⋮																																				
Organic Nitrogen	⋮	⋮	⋮	⋮	⋮																																				
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A.46	F-3	Table F-1, Facility Contact, Title and Phone	Dale Miller's phone number is (415) 242-2225.	Dale Miller, Operations Superintendent, Wastewater Enterprise, (415) 920-4600242- 2225	We revised the tentative order as proposed. The change updates the facility contact's phone number.
A.47	F-4	II.A.2	Similar to Comment No. 5, SFPUC requests language clarifying that compliance with the State Water Board Order No. 2006-0003-DWQ as amended by Order No. WQ 2013-0058-EXEC is separate from the NPDES permit. The requested language is consistent with the recently adopted permits for West County Agency (R2-2019-0003) and City of Palo Alto (R2-2019-0015).	Collection System. The Discharger's collection system is predominantly a combined sewer system with some limited separate sanitary sewers. The combined sewer system consists of approximately 250 miles of pipe, one major pump station (Westside Pump Station), six minor pump stations (four all-weather pump stations: Westside, Sea Cliff No. 1, Sea Cliff No. 2, and Pine Lake; and two wet weather pump stations: Sea Cliff No. 3 and Zoo Wet Weather Lift Station), and three large transport/storage structures (Westside Transport/Storage Structure, a 49.3-million-gallon box-like structure located beneath the Great Highway; Richmond Tunnel, a 12.0-million-gallon tunnel located to the north; and Lake Merced Tunnel, a 10.0-million-gallon tunnel located to the south). The separate sanitary sewer systems serve isolated areas and are also regulated separately under State Water Board Order No. 2006-0003-DWQ as amended by State Water Board Order No. WQ 2013-0058-EXEC.	We did not revise the tentative order. See our response to San Francisco Comment A.5.
A.48	F-5	II.A.3.b	SFPUC requests that the clarification be added to the Fact Sheet that wet weather discharge from the Westside Transport/Storage Structure is commonly referred to among SFPUC staff as "decant".	In addition to pumping up to 65 MGD to the plant, the Westside Pump Station can also pump flow from the Westside Transport/Storage Structure to Discharge Point No. 001 during wet weather (commonly known as "decant") .	We revised the tentative order similar to as proposed: ... In addition to pumping up to 65 MGD to the plant, the Westside Pump Station can also pump flow from the Westside Transport/Storage Structure to Discharge Point No. 001 during wet weather (identified in the previous order as "decant")

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A.49	F-5	II.A.3.b	<p>SFPUC requests the edits to more accurately describe the design capacity of the Westside Pump Station wet weather pumps. SFPUC engineers working on the Westside Pump Station Reliability Improvements Project analyzed the pump performance curves for the wet weather pumps from the manufacturer and determined that the pump flowrates range from 98 to 133 MGD in three operating scenarios depending on two factors: (1) the quantity of pumps operating and (2) model/type of pumps selected to operate (as shown in the table below). The table values assume the same Net Positive Suction Head is available for all operating scenarios, and high water levels in the Transport/Storage Box (i.e., high hydraulic head). Each pump model has a rated flow capacity and total dynamic head. The two pump model numbers correspond to a high flow, low head Model CP 3501 pump (best suited to pump out flows to the ocean outfall) and a low flow, high head Model CP 3151 pump (best suited to pump to the Oceanside Plant in certain operating scenarios to maximize treatment.) The operating scenarios vary the number of pumps in operation and model numbers (corresponding flow and head capacities) of the pumps in operation, that then in turn vary the total wet-weather flow capacity for conveying flow out to the ocean outfall.</p> <table border="1"> <thead> <tr> <th>Wet-Weather / West Pump Chamber Pump Configuration Operating Scenarios</th> <th>Flowrate at High Box Level (Wet-Weather Operations)</th> </tr> </thead> <tbody> <tr> <td>3-High Flow Capacity - Model CP 3501</td> <td>133 MGD</td> </tr> </tbody> </table>	Wet-Weather / West Pump Chamber Pump Configuration Operating Scenarios	Flowrate at High Box Level (Wet-Weather Operations)	3-High Flow Capacity - Model CP 3501	133 MGD	<p>The design capacity of the Westside Pump Station wet weather pumps <u>ranges from 98 to 133 MGD depending on the number and model of pumps operating when there is high hydraulic head, or high water levels, in the West Box (typically observed during wet weather operations).</u> is 110 MGD when three pumps are operating and up to 130 MGD when all four pumps are operating.</p>	<p>We revised the third sentence of the second paragraph of Fact Sheet section II.A.3.b similar to as proposed:</p> <p>The design capacity of the Westside Pump Station wet weather pumps <u>ranges from 98 to 133 MGD depending on the number and model of pumps operating when there are high water levels in the West Box of the Westside Transport/Storage Structure (typically observed during wet weather operations) is 110 MGD when three pumps are operating and up to 130 MGD when all four pumps are operating.</u></p>
Wet-Weather / West Pump Chamber Pump Configuration Operating Scenarios	Flowrate at High Box Level (Wet-Weather Operations)								
3-High Flow Capacity - Model CP 3501	133 MGD								

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A.50	F-5	II.A.4	<p>While the Oceanside Plant has the capacity to produce Class A biosolids, it may not be able to consistently do so depending on a number of factors, such as a potential plant process upset. Moreover, the Oceanside Plant recently experienced a digester lining failure in January 2019 and has been producing Class B biosolids since that time.</p>	<p>Sludge and Biosolids Management. The Discharger uses temperature-phased anaerobic digestion, <u>which is capable of producing to produce</u> Class A biosolids. 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. The digestion system accepts hauled-in batches of primary and secondary sludge from the Treasure Island Wastewater Treatment Plant. Digested biosolids are dewatered using screw presses and stored in hoppers prior to being loaded into covered trucks for transport. During the wet season, the majority of biosolids are hauled to a landfill for storage and eventual use as interim cover, final cover, or landfill building material; a small percentage is reused for agricultural land application. During the dry season, biosolids are hauled offsite for agricultural land application.</p>	<p>We revised the tentative order as proposed. The change recognizes that San Francisco may not always be able to produce Class A biosolids.</p>								
A.51	F-6	II.B.2	<p>SFPUC requests the changes to the fact sheet for consistency with Paragraph II.A3.b. on page F-5. During certain storms, such as those that are microclimatic or intense from either north or south portions of San Francisco, CSDs may occur when maximum capacity is reached in local transport/storage structures although maximum capacities may</p>	<p>2. Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. During wet weather, when the Westside Pump Station capacity is exceeded, equivalent-to-primary-treated wastewater is discharged to the Pacific Ocean at Discharge Point Nos. CSD-001,</p>	<p>We revised the tentative order similar to as proposed:</p> <p>Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. During wet weather, <u>when the Westside Pump Station capacity is exceeded,</u> equivalent-to-primary-treated wastewater</p>								

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			not have been reached at the Oceanside Plant and the Westside Transport/Storage Structure.	CSD-002, CSD-003, <u>and CSD-004.</u> <u>Discharges of equivalent-to-primary-treated wastewater at Discharge Point Nos. CSD-005, CSD-006, and CSD-007 occur when the capacities of the corresponding pump stations (i.e., Sea Cliff No. 1 and Sea Cliff No. 2 Pump Stations) are exceeded.</u> These discharge points are located within the territorial waters of the State.	is discharged to the Pacific Ocean at Discharge Point Nos. CSD-001, CSD-002, CSD-003, <u>and CSD-004 when the Westside Pump Station capacity is exceeded, and at Discharge Point Nos. CSD-005, CSD-006, and CSD-007 when the capacities of the corresponding pump stations (i.e., Sea Cliff No. 1 and Sea Cliff No. 2 Pump Stations) are exceeded, including the capacity of the wet well connected to Discharge Point No. CSD-006.</u> These discharge points are located within the territorial waters of the State.
A.52	F-10	III.C.2	SFPUC requests retaining language from the 2009 permit (pages F-11 and F-22) that references the 1989 bacteriological study as this language provides important background information.	<u>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. The studies were conducted in 1987 and 1988. The findings indicated that the non-disinfected wastewater discharge from the Discharge Point 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, so the Regional Water Board found that the deep water discharge could not affect bacteria levels in State waters.</u>	We did not revise the tentative order because we did not use the 1989 study to develop the requirements of this tentative order. Fact Sheet section III.C.2 explains that the tentative order contains discharge prohibitions, effluent limitations, receiving water limitations, and other provisions to ensure that discharges from Discharge Point No. 001 do not affect State waters.

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A.53	F-14	III.D	The SFPUC requests more detail be included in the fact sheet regarding fecal indicator bacteria 303(d) listings.	This Order does not authorize any discharge to receiving waters on California’s list of impaired waters. The Pacific Ocean at Fort Funston, Ocean Beach, Mile Rock and China Beach are not impaired for indicator bacteria. The Pacific Ocean at Baker Beach is no longer listed as impaired for indicator bacteria because the sixteen available lines of evidence show applicable water quality standards are not being exceeded.	We did not revise the tentative order because the text already indicates that the receiving waters are not impaired, thus they are not impaired by any pollutant, including any indicator bacteria.
A.54	F-18	IV.C.1	See explanation provided in Comment No. 2, related to the overly broad requirement to comply receiving water limitations, and Comment No. 20 related to the CSO Control Policy requirements applicable to cities that have implemented a long-term control plan (LTCP).	During wet weather, this Order imposes narrative effluent limitations at VI.C.5.c , not numeric limitations, on the Discharge Points identified in Table 2 of this Order . In accordance with the <i>Combined Sewer Overflow (CSO) Control Policy</i> , this Order requires the Discharger to implement and update its Long-Term Control Plan to reflect post-construction monitoring results and continued consideration of sensitive areas .	We did not revise the tentative order because the additional text is unnecessary. See our responses to San Francisco Comments B.1 through B.13 related to “Combined Sewer Overflow (CSO) Control Policy” and response to San Francisco Comment A.20.
A.55	F-25	IV.C.5.b	See explanation provided in Comment No. 2.	b. Wet Weather. For wet weather discharges from Discharge Point No. 001 and CSD-001 through CSD-007 identified in Table 2 of this Order the combined sewer discharge points , the Long-Term Control Plan required pursuant to the <i>Combined Sewer Overflow (CSO) Control Policy</i> and described in Provision VI.C.5.c of the Order serves as the narrative WQBELs in this Order that are necessary to achieve applicable water quality standards, including to protect existing and designated uses. For wet weather discharges from the Discharge Points in Table 2 of this Order, the terms at VI.C.5.c are the applicable WQBELs. The terms at V and G.II.1 do not apply.	We did not revise the tentative order because the additional text is unnecessary. See our responses to San Francisco Comments B.1 through B.13 related to “Combined Sewer Overflow (CSO) Control Policy.”
A.56	F-30	VI.C.5	Changes to the Fact Sheet are requested to align it with changes requested to the permit.	For sewer overflows from the combined sewer system, Provision VI.C.5.a.viii (b)	We revised the tentative order as shown in our response to San Francisco Comment A.9

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				<p>requires the Discharger to notify and report <u>SOCSS to the State’s Online CIWQS database, consistent with the sanitary sewer overflow reporting requirements of State Water Board Order No. 2006-0003-DWQ, “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems,” as amended by State Water Board Order No. WQ 2013-0058-EXEC and any subsequent order updating these requirements. Water Code sections 13267 and 13383, 40 C.F.R. section 122.41(h), and the Combined Sewer Overflow (CSO) Control Policy authorize the Regional Water Board and EPA to require information about releases of untreated or partially treated wastewater.</u> This information is <u>necessary relevant to evaluating the efficacy of the Discharger’s implementation of the Nine Minimum Control related to maximizing the use of the collection system for storage combined sewer system performance, and operations and maintenance practices; to determine whether any diversions of untreated or partially treated wastewater result in a discharge to surface waters; to satisfy public notification requirements; to identify whether the public could be affected; and to establish whether sewer overflows from the combined sewer system result in a nuisance as defined by Water Code section 13050.</u></p>	<p>to clarify that State Water Board Order No. 2006-0003-DWQ is not incorporated by reference, but we did not otherwise revise our rationale for the requirement:</p> <p>For sewer overflows from the combined sewer system, Provision VI.C.5.a.viii(b) requires the Discharger to notify and report <u>sewer overflows from the combined sewer system using the State’s CIWQS database consistent with the sanitary sewer overflow reporting requirements of State Water Board Order No. 2006-0003-DWQ, “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems,” as amended by State Water Board Order No. WQ 2013-0058-EXEC and any subsequent order updating these requirements.</u> Water Code sections 13267, 13263, and 13383, 40 C.F.R. section 122.41(h), and the <i>Combined Sewer Overflow (CSO) Control Policy</i> authorize the Regional Water Board and U.S. EPA to require information about releases of untreated or partially-treated wastewater.</p>
A.57	F-32	VI.C.7	<p>SFPUC requests a more specific definition of “flame retardants,” which in its broadest definition encompasses many classes of chemicals, not all of which would be expected in municipal wastewater or stormwater. Based on the precedent of other permitted discharges to the Pacific Ocean (such as Hyperion Treatment Plant) and the justification for the special study in the</p>	<p>7. Flame Retardant Special Study This special study is necessary to evaluate the potential impacts of flame retardants (<u>i.e., polybrominated diphenyl ethers and chlorinated organophosphate flame retardants</u>) in receiving waters. During EPA consultation with the National Marine Fisheries Service pursuant to the Endangered Species Act and Magnuson-Stevens Act, the</p>	<p>We revised the tentative order as proposed. The flame retardants of interest are polybrominated diphenyl ethers and chlorinated organophosphate flame retardants.</p>

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			Tentative Order, SFPUC plans to focus the study on polybrominated diphenyl ethers (PBDEs) and chlorinated organophosphate flame retardants.	National Marine Fisheries Service expressed concern about the presence of flame retardants in plant effluent and flame retardant mass loadings to the Pacific Ocean because organophosphates have been widely detected in San Francisco Bay water, sediment, and aquatic life tissue, and because polybrominated diphenyl ether (PBDE) and tris(1,3-dichloro-2-propyl)phosphate (TDCP) concentrations in San Francisco Bay water have regularly exceeded predicted no effect concentrations for marine settings (<i>EPA Biological Evaluation</i> , April 2019). This special study is consistent with other NPDES permits that authorize discharge to the Pacific Ocean.	
A.58	G-2		Please see Attachment B for more detailed comments. If the Regional Water Board and EPA do not delete this standard provision and the broad requirement to comply with receiving water limitations, (see Comment No. 2, the SFPUC requests the edits specified in Comment Nos. 3, 54, and 55 to more explicitly clarify the applicability of these provisions to dry weather discharges only.	1. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.	We did not revise the tentative order. See our response to San Francisco Comment C.16.