

No. _____

**In The
Supreme Court of the United States**

—◆—
CITY AND COUNTY OF SAN FRANCISCO,

Petitioner,

v.

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

—◆—
**On Petition For Writ Of Certiorari
To The United States Court Of Appeals
For The Ninth Circuit**

—◆—
APPENDIX VOLUME II

—◆—
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January 8, 2024

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[F-3] 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 11.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

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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 (MOD), maximum dry weather flow
Facility Design Flow	<p><u>Oceanside Water Pollution Control Plant</u> 43 MGD maximum dry weather design flow (secondary treatment) 65 MOD maximum wet weather design flow (secondary treatment for 43 MGD and primary treatment for an additional 22 MOD)</p> <p><u>Westside Recycled Water Protect</u> 4 MGD maximum design flow (1.6 MGD annual average)</p>
Watershed	San Mateo Coastal Basin
Receiving Water	Pacific Ocean

Receiving Water Type	Ocean waters
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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 [F-4] 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 [F-5] 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.

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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 [F-6] 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 West-side 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.

[F-7] **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	---
BOD5 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 (CBODs) concentrations were within the expected range. This Order allows CBODs effluent limitations to be substituted for BODs 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
[F-8] 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.

[F-9] **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 (RECI) • 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

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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:

- [F-10] • 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,

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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 [F-11] (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

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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 1.C and 1.D, require the Discharger to design, construct, and operate its facilities to conform to these standards to the greatest extent practical.

- [F-12] • 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

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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

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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 [F-13] 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(1) 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

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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.

[F-14] **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 non-point 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. [F-15] 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 [F-16] 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(6) 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 _s ^[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.

[F-17] **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 West-side 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 [F-18] 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 [F-19] toward State waters (*Assessment of Effects on California State Waters from the Ocean-side 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

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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 End-point 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 C_0 , 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-[F-20] 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 95th 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
[F-21] 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 TU_c	28	0	149 TU_c	1.0 TU_c	1.1 TU_c	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

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 95th Percentile (µg/L)	Result
2,4-Dinitrophenol	4.0	7	7	<0.90	<0.0060	---	Endpoint 3
2-Methy1-4,6-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

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 95th Percentile (µg/L)	Result
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
[F-22] 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
Bcnzidine	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

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 95th Percentile (µg/L)	Result
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
TU_c = 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 190.0001 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 95th 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 TU_c	28	0	220 TU_c	1.5 TU_c	1.6 TU_c	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

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 95th Percentile (µg/L)	Result
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
[F-24] 1,2-Diphenylhydrazine	0.16	7	7	<1.4	<0.0091	---	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 95th Percentile (µg/L)	Result
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
Benidine	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 ^[1,3]	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

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 95th Percentile (µg/L)	Result
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
Trihloroethylene	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.

[F-25] 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:

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H_0 : mean discharge IWC response $\leq 0.75 \times$ 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(l), which generally require [F-26] effluent limitations in a re-issued 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.

[F-27] **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 record-keeping 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 [F-28] 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

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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 [F-29] 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:

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- 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*

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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).

[F-30] 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 [F-31] 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

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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 [F-32] 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.

[F-33] **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 [F-34] 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. [F-35] 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:

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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

[F-36] 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.
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ATTACHMENT G
REGIONAL STANDARD PROVISIONS, AND
MONITORING AND REPORTING REQUIREMENTS
(SUPPLEMENT TO ATTACHMENT D)

November 2017

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**[G-1] 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 1.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 1.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

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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.

[G-2] **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:

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- 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

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

[G-3] 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

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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

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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 [G-4] 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 unionized 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 [G-5] 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

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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.

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- 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).
- [G-6] f. **Weather Conditions** – wind direction, air temperature, and total precipitation during five days prior to observation.

2. **Wastewater Effluent Observations.**

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

- a. **Floating and Suspended Material of Wastewater Origin** (e.g., oil, grease, algae, and other macroscopic particulate matter) – presence or absence.
- b. **Odor** – presence or absence, characterization, source, distance of travel, and wind direction.

3. Beach and Shoreline Observations.

The following requirements only apply when the MRP requires standard observations of beaches or shorelines. Standard observations shall include the following:

- a. Material of Wastewater Origin** – presence or absence, description of material, estimated size of affected area, and source.
- b. Beneficial Use** – estimate of number of people participating in recreational water contact, non-water contact, and fishing activities.

4. Waste Treatment and/or Disposal Facility Periphery Observations.

The following requirements only apply when the MRP requires standard observations of the periphery of waste treatment or disposal facilities. Standard observations shall include the following:

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

IV. STANDARD PROVISIONS – RECORDS

A. Records to be Maintained – Supplement to Attachment D, Provision IV.A

The Discharger shall maintain records in a manner and at a location (e.g., the wastewater

treatment plant or the Discharger's offices) such that the records are accessible to Regional Water Board staff. The minimum retention period specified in Attachment D, Provision IV, shall be extended during the course of any unresolved litigation regarding permit-related discharges, or when requested by Regional Water Board or U.S. EPA, Region IX, staff.

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

B. Records of Monitoring – Supplement to Attachment D, Provision IV.B Monitoring records shall include the following:

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

[G-7] **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).

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- 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

[G-8] **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.

[G-9] **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

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levels (MLs) to zero. The Discharger shall calculate and report dioxin-TEQ using the [G-10] following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

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

where: C_x = measured or estimated concentration of congener x

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

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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, [G-11] 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

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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);

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- [G-12] **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

¹ California Code of Regulations, Title 23, section 225(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.

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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.

[G-13] **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:

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- 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:

$$\text{Geometric Mean} = \text{Antilog} \left(\frac{1}{N} \sum_{i=1}^N \text{Log}(C_i) \right)$$

or

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

[G-14] 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:

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$$\text{Mass emission rate (lb/day)} = \frac{8.345}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.785}{N} \sum_{i=1}^N Q_i C_i$$

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:

$$C_d = \text{Average daily concentration} = \frac{1}{Q_i} \sum_{i=1}^N Q_i C_i$$

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_i” is the

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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 (+1-5%) of the representative flow of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may [G-15] be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab

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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.

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										

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.

⁸ Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 µg/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.

**[H-1] 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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**[H-3] 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.)

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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

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standards as provided in 40 C.F.R. 403.5 and 403.6, respectively.

- [H-4] **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 non-compliance 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 semi-annual 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.

[H-5] 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.

[H-6] 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.

[H-7] 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

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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;
 - [H-8] 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

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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 [H-9] 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.

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- 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

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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
 - [H-10] (3) A brief summary of the non-compliant 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.

[H-11] **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.

[H-12] 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

[H-13] 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.

[H-14] **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

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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.

[H-15] 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.

[H-16] 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

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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
- [H-17] 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.

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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.P.A. 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

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contributing to interference, pass through or adversely impacting biosolids quality.

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[Environmental Appeals Board
United States Environmental Protection Agency]
IN RE CITY AND COUNTY OF SAN FRANCISCO

NPDES Appeal No. 20-01

ORDER DENYING REVIEW

Decided December 1, 2020

Syllabus

The City and County of San Francisco (“San Francisco”) petitioned the Environmental Appeals Board to review U.S. Environmental Protection Agency’s (“EPA’s”) Region 9 (“Region”) authorization to discharge under the National Pollutant Discharge Elimination System (“NPDES”) permitting program of the Clean Water Act. The Region jointly issued its authorization with the California Regional Water Quality Control Board for the San Francisco Bay Region (“California RWQCB”), allowing San Francisco to discharge from its existing combined sewer system (which includes its wastewater treatment facility and waste collection system) into the Pacific Ocean.

San Francisco contests three of the permit’s conditions: (1) a narrative prohibition against causing or contributing to a violation of any water quality standards (section V and attachment G.I.I.1); (2) a requirement to report on sewer overflows from the combined sewer system (section VI.C.5.a.ii.b); and

(3) a requirement to update the long-term control plan (“LTCP”) (section VI.C.5.d). Additionally, San Francisco challenges the Region’s characterization of the joint authorization to discharge as two permits, rather than one.

Held: San Francisco has not demonstrated that review is warranted on any of the grounds presented. As such the Board denies the petition for review in all respects.

(1) The Board concludes that the respective permitting processes for the Region’s authorization and that of the California RWQCB were consolidated under 40 C.F.R. § 124.4(c)(2). As a result, San Francisco received dual authorizations for the continued operation of its facility, regardless whether those authorizations are characterized as one permit or two. San Francisco fails to establish clear error as to either the consolidated NPDES permitting process or the differing characterizations of the dual authorizations.

(2) San Francisco fails to carry its burden with respect to its arguments that the Region lacks a legal or factual basis to include a narrative prohibition against violating water quality standards in the receiving waters or that the prohibition deprives San Francisco of fair notice. Under the Clean Water Act, permit issuers are required to include in every NPDES permit conditions that ensure that water quality standards will be met. Although 40 C.F.R. § 122.44(d) sets forth a process for deriving pollutant-specific effluent limits, the regulations do not require that all

permit conditions necessary to meet water quality standards be expressed in terms of specific pollutant-by-pollutant limitations. Given the Region's responsibility to determine what conditions are appropriate to include in the permit, its legal obligation to ensure that water quality standards are met, the legal authority to include a narrative prohibition against violating water quality standards, and its determination that the water quality-based effluent limitations elsewhere in the permit may not necessarily meet that obligation, the Board concludes that the contested narrative prohibitions were not clearly erroneous. Additionally, San Francisco has not identified any language in the narrative prohibitions, or the water quality standards that apply, that is vague or unclear so as to deprive San Francisco of fair notice.

(3) The Board concludes that San Francisco's argument concerning the requirement to report on isolated sewer overflows (for example, backups into basements or onto streets through manholes) misapprehends the function of the permit condition at issue and fails to carry San Francisco's burden to show that the Region's inclusion of the reporting requirement constituted clear error. The requirement to report on isolated sewer overflows is not to "regulate" them, as argued by San Francisco. Rather, the frequency, cause, and location of isolated sewer overflows can be indicative of whether the permitted combined sewer system is operating appropriately. As such, the reporting requirement is an appropriate mechanism, grounded in the Combined Sewer Overflow Control Policy and the

Clean Water Act more generally, to determine whether the permitted combined sewer system is operating in compliance with the permit, including the requirement to maximize storage without increasing upstream flooding into basements and streets, which can negatively impact human health and the environment.

(4) The Board concludes that San Francisco has not demonstrated that the Region's decision to include permit terms requiring San Francisco to update its LTCP is clearly erroneous. The Region's decision to require San Francisco to update its LTCP—to ensure that up-to-date information is used to assess whether, among other things, water quality standards are being met and to ensure that wet weather discharges are not causing unreasonable degradation of the marine environment—is entirely consistent with the aims of the Clean Water Act and its incorporation of the Combined Sewer Overflow Control Policy. Permitting authorities are required to issue permits that comply with the Clean Water Act, which in the case of combined sewer systems reasonably can include updates to long-term control plans, particularly where such plans are decades old. Additionally, the Board concludes that the Region's decision to require an LTCP update was well supported by the facts given that San Francisco's LTCP consists of a compilation of documents developed over the course of two decades (the most recent document being a 1990 revision of a 1988 document), making it difficult to discern the relationship between the documents. Information related to the existing sewer system, potential technology and water-quality based

requirements that are intended to shape the system, and collection system improvement opportunities is clearly relevant to San Francisco's long-term plans to control combined sewer overflows. Such information is also relevant to the Region's determination as to whether San Francisco's long-term plans will ensure compliance with the Clean Water Act, including the Combined Sewer Overflow Control Policy. The Board also concludes that the permit clearly describes, defines, and articulates the tasks required, giving San Francisco fair notice of what is required to comply with the Permit.

Before Environmental Appeals Judges Aaron P. Avila, Mary Kay Lynch, and Kathie A. Stein.

Opinion of the Board by Judge Avila:

I. INTRODUCTION

The U.S. Environmental Protection Agency ("EPA") Region 9 ("Region") and the California Regional Water Quality Control Board for the San Francisco Bay Region ("California RWQCB") jointly authorized the City and County of San Francisco ("San Francisco") to discharge from San Francisco's existing Oceanside combined sewer system (which includes its wastewater treatment facility and its wastewater collection system) ("Oceanside CSS") under the National Pollutant Discharge Elimination System ("NPDES") permitting

program of the Clean Water Act.¹ The two permitting agencies processed their respective permit authorizations together because San Francisco's facility discharges into the Pacific Ocean, and those discharges are regulated by both EPA (for discharges more than three miles offshore) and the State (for discharges inside of three miles offshore).

In January 2020, San Francisco petitioned the Environmental Appeals Board ("Board") to review the Region's permit decision, contesting three of the permit's conditions: (1) a narrative prohibition against causing or contributing to a violation of any water quality standards (section V and attachment G at G.I.I.1); (2) a requirement to report on sewer overflows from the combined sewer system (section VI.C.5.a.ii.b); and

¹ San Francisco owns and operates the Oceanside Water Pollution Control Plant and its waste collection system. Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project, Fact Sheet for NPDES Permit No. CA0037681*, at F-3 (Dec. 10, 2019) (A.R. 17f) ("Fact Sheet") (appended to NPDES Permit No. CA0037681 as attach. F). This system was last permitted in 2009. *See* Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *NPDES Permit for City and County of San Francisco Oceanside Water Pollution Control Plant and Collection System, including the Westside Wet Weather Facilities, NPDES No. CA0037681, Order R2-2009-0062* (Aug. 12, 2009) (A.R. 81) ("2009 Permit"); *see also* Fact Sheet at F-4. During the term of the permit at issue here, San Francisco plans to construct, own, and operate the Westside Recycled Water Project. Fact Sheet at F-3. Collectively, the Oceanside Water Pollution Control Plant, its waste collection system, and the Westside Recycled Water Project (or any portion thereof) are referred to in this decision as the "Oceanside CSS."

(3) a requirement to update the long-term control plan (section VI.C.5.d). *See* San Francisco Petition for Review of Oceanside Wastewater Treatment Plant’s NPDES Permit 2 (Jan. 13, 2020) (“Petition”). Additionally, in response to the Region’s notice regarding the stay of permit conditions pending appeal, San Francisco challenges the Region’s characterization of the joint authorization to discharge as two permits, rather than one. Final briefing for this appeal was completed in September 2020. Oral argument was held in October 2020. For the reasons stated below, the Board denies the Petition for Review in its entirety.

II. *PRINCIPLES GOVERNING BOARD REVIEW*

Section 124.19 of Title 40 of the Code of Federal Regulations governs Board review of an NPDES permit. In any appeal from a permit decision issued under part 124, the petitioner bears the burden of demonstrating that review is warranted. *See* 40 C.F.R. § 124.19(a)(4). “[A] petition for review must identify the contested permit condition or other specific challenge to the permit decision and clearly set forth, with legal and factual support, petitioner’s contentions for why the permit decision should be reviewed.” *Id.* § 124.19(a)(4)(i).

In considering whether to grant or deny a petition for review, the Board is guided by the preamble to the regulations authorizing appeal under part 124, in which the Agency stated that the Board’s power to grant review “should be only sparingly exercised,” and

that “most permit conditions should be finally determined at the [permit issuer’s] level.” Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). The Board will ordinarily deny a petition for review and thus not remand the permit unless the underlying permit decision is based on a clearly erroneous finding of fact or conclusion of law. 40 C.F.R. § 124.19(a)(4)(i).

When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit decision to determine whether the permit issuer exercised “considered judgment.” *E.g.*, *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied on when reaching its conclusion. *E.g.*, *Ash Grove*, 7 E.A.D. at 417. As a whole, the record must demonstrate that the permit issuer “duly considered the issues raised in the comments” and ultimately adopted an approach that “is rational in light of all information in the record.” *In re Gov’t of D. C. Mun. Sep. Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002); *accord In re City of Moscow*, 10 E.A.D. 135, 142 (EAB 2001); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 568 (EAB 1998), *pet. for review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999).

On matters that are fundamentally technical or scientific in nature, the Board typically defers to a permit issuer’s technical expertise and experience, again,

as long as the permit issuer has adequately explained its rationale and supported its reasoning in the administrative record. *See In re Dominion Energy Brayton Point, L.L. C*, 12 E.A.D. 490, 510, 560-62, 645-47, 668, 670-74 (EAB 2006); *see also, e.g., In re Russell City Energy Ctr., L.L. C*, 15 E.A.D. 1, 12, 39-42, 66 (EAB 2010), *pet. for review denied sub nom. Chabot-Las Positas Cmty. Coll. Dist. v. EPA*, 482 F. App'x 219 (9th Cir. 2012); *NE Hub Partners*, 7 E.A.D. at 570, 571.

III. RELEVANT CLEAN WATER ACT PROVISIONS AND IMPLEMENTING REGULATIONS

In 1972, Congress enacted the Clean Water Act (“CWA”) “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” *See* CWA §§ 101(a), 33 U.S.C. §§ 1251(a). To achieve this objective, the CWA prohibits the discharge of pollutants into the waters of the United States, unless authorized by an NPDES permit or other specified CWA provision. *See* CWA §§ 301(a), 402, 502(7), 33 U.S.C. §§ 1311(a), 1342, 1362(7).

A. *National Pollutant Discharge Elimination System Permits Generally*

NPDES permits rely on two statutory mechanisms to protect water quality: (1) water quality standards, and (2) effluent limitations. *See generally* CWA §§ 301, 303, 304(b), 33 U.S.C. §§ 1311, 1313, 1314(b); 40 C.F.R. pts. 122, 125, 131. Water quality standards are promulgated by states and approved by EPA. *See*

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CWA § 303(a), (c), 33 U.S.C. § 1313(a), (c); 40 C.F.R. §§ 131.10-.12. Water quality standards include three components: (1) the “designated uses” of a waterbody, such as public drinking supply, recreation, or wildlife habitat; (2) “water quality criteria,” expressed in numeric or narrative form, specifying the amount of various pollutants that may be present in the waterbody without impairing the waterbody’s designated uses; and (3) an “antidegradation” provision that protects existing uses and high quality waters. 40 C.F.R. §§ 131.10-.12; *see also* CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A). The CWA and its implementing regulations require permitting authorities to ensure that any permit issued complies with the CWA and the water quality standards of all states affected by the discharge. *See* CWA §§ 301(b)(1)(C), 401(a)(1)-(2), 33 U.S.C. §§ 1311(b)(1)(C), 1341(a)(1)-(2); 40 C.F.R. §§ 122.4(d), .44(d)(1).

Generally speaking, effluent limits are either technology based (typically established by the permitting authority on an industry-specific basis) or water quality based (developed in the context of individual permit decisions). *See* CWA §§ 301(b), 302, 303(c), (d), 33 U.S.C. §§ 1311, 1312, 1313(c), (d); 40 C.F.R. §§ 122.44, 125.3(a). Water quality-based effluent limits (“WQBELs”) control pollutant discharges by restricting the types and amounts of particular pollutants a permitted entity may lawfully discharge. *See* 40 C.F.R. § 122.44(d).

NPDES permits can be issued either by EPA or by states with authorized programs. *See generally* CWA § 402, 33 U.S.C. § 1342. Where EPA has approved a

state's submitted program under CWA section 402(b), the state administers its approved NPDES permit program and EPA suspends its issuance of NPDES permits as to discharges into navigable waters *within the state's own boundaries*. *See id.* § 1342(b), (c); 40 C.F.R. § 123.1(d)(1). EPA has approved the State of California's program to implement the NPDES program through the State Water Resources Control Board and its nine Regional Water Quality Control Boards. *See Approval of California's Revisions to the State National Pollutant Discharge Elimination System Program*, 54 Fed. Reg. 40,664, 40,664-65 (Oct. 3, 1989); *Discharges of Pollutants to Navigable Waters: Approval of State Programs*, 39 Fed. Reg. 26,061, 26,061 (July 16, 1974). Nearshore waters, i.e., waters in the Pacific Ocean within three miles from shore, are considered within the boundary of California (they are also referred to as the "territorial waters" of the state) and are therefore subject to California's approved program. *See Fact Sheet at F-6*. Discharges into the Pacific Ocean that are beyond three miles from shore are not within the boundary of California and therefore are *not* subject to California's approved program. Thus, as relevant here, the California RWQCB administers the NPDES program for San Francisco's nearshore discharges, and EPA administers the NPDES program for San Francisco's discharges that are beyond three miles from shore.² *See id.* at F-6, F-11.

² This distinction between the state-authorized and the EPA-authorized discharges does not alter the fact that *all* of the authorized discharges from the Oceanside CSS are into the Pacific

B. *Combined Sewer Overflows*

San Francisco's challenge to this permit involves provisions that relate to combined sewer overflows ("CSOs") within the San Francisco wastewater collection system. Combined sewer systems convey sanitary wastewater (domestic, commercial, and industrial wastewaters) and stormwater through a single pipe system to a wastewater treatment facility. *See* Combined Sewer Overflow (CSO) Control Policy § I.A, 59 Fed. Reg. 18,688, 18,689 (Apr. 19, 1994) (A.R. 96) ("CSO Control Policy"). A CSO is a discharge from a combined sewer system at a point prior to the treatment facility that occurs as a result of a wet weather event. *Id.* Dry weather CSOs are prohibited by the CWA. *Id.* § I.B, at 18,689. Combined sewer systems anticipate significant stormwater events and are designed to overflow directly from CSO outfalls to surface water bodies such as the Pacific Ocean. In addition, when the storage capacity of the entire system is exceeded, isolated sewer overflows ("ISOs"), or spills, can occur from various points of exit other than the permitted CSO outfalls (backups into basements or onto streets through manholes, for example). *See* Office of Water, U.S. EPA, *CSO Guidance for Permit Writers*, at 4-6 (1995) (A.R. 95c)

Ocean, which is considered "navigable waters" and falls under the scope of NPDES regulation for purposes of the CWA. *See* CWA § 502(7), (8), 33 U.S.C. § 1362(7), (8). The parties use the term "state waters" to refer to the "navigable waters" that are subject to California's approved NPDES program and "federal waters" to refer to the "navigable waters" that are not part of California's approved program and are instead under EPA's NPDES authority.

(“CSO Guidance for Permit Writers”); Office of Water, U.S. EPA, *Combined Sewer Overflows Guidance for Nine Minimum Controls*, at 3-3 (1995) (A.R. 95a) (“NMC Guidance”).

Discharge from a CSO event consists of mixtures of domestic sewage, industrial and commercial wastewaters, and stormwater runoff. CSO Control Policy § I.A, 59 Fed. Reg. at 18,689. As such, CSOs often contain high levels of suspended solids, pathogenic microorganisms, toxic pollutants, floatables, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants. *Id.* CSOs can cause exceedances of water quality standards. Such exceedances may pose risks to human health, threaten aquatic life and its habitat, and impair the use and enjoyment of the nation’s waterways. *Id.* Discharges from CSOs are not subject to the secondary treatment requirements applicable to wastewater treatment facilities; they are, however, point source discharges subject to the CWA, including its NPDES permit requirements. *Id.*

EPA issued the CSO Control Policy in 1994 to implement a “comprehensive national strategy” for CSO control to “meet appropriate health and environmental objectives.” CSO Control Policy, 59 Fed. Reg. at 18,688. In 2000, Congress subsequently codified the CSO Control Policy at section 402(q) of the CWA, 33 U.S.C. § 1342(q), thus making the provisions of the CSO Control Policy part of NPDES permitting law. The CSO Control Policy is intended to facilitate and coordinate the planning, selection, design, and implementation of CSO management practices and controls to meet the

requirements of the CWA and to involve the public fully during the decisionmaking process. *Id.* § I.A, 59 Fed. Reg. at 18,689. The policy seeks to review and revise, as appropriate, the implementation of water quality standards when developing CSO control plans to reflect the site-specific wet weather impacts of CSOs. *Id.* The policy applies to all combined sewer systems that overflow as a result of stormwater flow, including those systems that were completed prior to issuance of the policy. *Id.* §§ I.B, .C, 59 Fed. Reg. at 18,689-90 (referencing NPDES permit requirements identified in section IV.B of the CSO Control Policy, which includes requirements for nine minimum controls and the long-term control plan, and providing that, “[for] any ongoing or substantially completed CSO control effort, the NPDES permit * * * should be revised to include all appropriate permit requirements” of the CSO Control Policy).

The CSO Control Policy requires municipalities operating combined sewer systems to “immediately” and “accurately” characterize their sewer systems and demonstrate the implementation of the nine minimum controls (“NMC”) as the minimum technology-based requirements to be imposed on combined sewer systems during wet weather. *Id.* § II.A., B, 59 Fed. Reg. at 18,691 (incorporating CWA § 301(b) requirement to impose best practicable control technology); *see* 40 C.F.R. § 125.3; Fact Sheet at F-29; CSO Guidance for Permit Writers at 3-1, 3-3. Municipalities must also develop and then implement a “Long-Term CSO Control Plan” (“LTCP”). CSO Control Policy § II.A, C, 59 Fed.

Reg. at 18,691. The CSO Control Policy allows a phased approach for implementation of CSO controls. *See* CSO Guidance for Permit Writers at 3-1, 4-1. “Phase I permits” require permittees to implement the NMC and develop an LTCP. *Id.* at 3-1; *see also* CSO Control Policy § IV.B.1, 59 Fed. Reg. at 18,696. “Phase II permits” require permittees to implement the LTCP developed in Phase I. CSO Control Policy § IV.B.2, 59 Fed. Reg. at 18,696; CSO Guidance for Permit Writers at 4-1. A permit writer’s responsibilities continue after the issuance of a first Phase II permit; multiple Phase II permits may be required through numerous permit cycles, and a permit writer’s obligation to address CSO controls continues even after implementation of the LTCP in subsequent (or “post-Phase II”) permits to ensure proper operation and maintenance of the CSO controls and appropriate implementation of post-construction compliance monitoring. CSO Guidance for Permit Writers at 5-1 to 5-4.

In recognition that some municipalities were already in the process of managing their CSOs at the time the CSO Control Policy was issued, in certain circumstances permitting authorities could determine on a case-by-case basis that portions of the CSO Control Policy did not apply. CSO Control Policy § I.C., 59 Fed. Reg. at 18,690. The policy also provides that “such programs * * * should be reviewed and modified to be consistent with the sensitive area, financial capability, and post-construction monitoring provisions of [the] Policy.” *Id.*

IV. *PROCEDURAL POSTURE
AND RELEVANT FACTS*

San Francisco's Oceanside CSS includes 250 miles of pipe to collect and transport wastewater from approximately 250,000 residents across western San Francisco to its water pollution control plant for treatment. *See* Fact Sheet at F-4. During dry weather, the water pollution control plant provides secondary treatment, and the system's maximum secondary treatment capacity is 43 million gallons per day.³ *Id.* at F-5. During wet weather, the system can provide primary treatment for an additional 22 million gallons per day (which is then combined with the secondary-treated effluent before being discharged for a total of 65 million gallons per day), and the system's storage/transport structures and collection system piping have a combined storage capacity of about 73 million gallons. *Id.* When the volume of stormwater exceeds the system's capacity, the system discharges the combined effluent through seven nearshore (within California's boundary) combined sewer discharge structures (or "CSD Outfalls")⁴ into the Pacific Ocean and through one deep-water ocean outfall that terminates approximately 3.9

³ As mentioned above, San Francisco seeks authorization to add a recycled water project to its system, as part of its current permit renewal. Fact Sheet at F-3.

⁴ The current configuration of the facility is different from prior descriptions of the facility, which described the system as having eight rather than seven CSD Outfalls. *See* Memorandum from Becky Mitschele, NPDES Permit Writer, NPDES Permits Section, to Admin. Record for NPDES Permit No. CA0037681, at 6 n.9 (Apr. 15, 2019) (A.R. 91) ("Memo to File").

nautical miles offshore (outside of California's boundary and therefore beyond the State's authority to regulate through its approved NPDES program). *Id.* at F-6. The combined sewer system was designed to achieve a long-term average of eight combined sewer discharges per year. *Id.* at F-7.⁵

San Francisco began developing a "Master Plan for Wastewater Management" in the 1970s, part of which included studies to balance system storage, reduce wet weather discharges, and develop control alternatives. *See Pet.* at 4-5; *San Francisco Master Plan for Waste Water Management*, at i, II-1 to II-9 (Sept. 1971) (A.R. 77). Construction began on the Oceanside CSS in the early 1980s and the system was substantially complete by 1993. *See Pet.* at 6. Thus, when the CSO Control Policy was developed in 1994, San Francisco was well into the process of reducing wet weather discharges from its combined sewer system. As a result, the Region and the California RWQCB determined that San Francisco did not need to comply with

⁵ In 1976, the San Francisco facility existing at that time was required to reduce discharges from an average of 114 overflow events per year to an average of 1 overflow per year and to conduct a study to better understand the costs and benefits associated with various overflow frequencies. Cal. State Water Resources Control Bd., Order No. WQ 79-16: In the Matter of the Request for an Exception to the 1978 Water Quality Control Plan for Ocean Waters of Cal., at 1 (1979) (A.R. 102) ("State Water Board Order No. WQ 79-16") (referencing Cal. Regional Water Quality Control Board, S.F. Bay Region, Order No. 76-23). In 1979, the Regional Water Board amended Order No. 76-23 to allow an average of 8 overflows per year, which was adopted in State Water Board Order No. 79-16. *Id.* at 2, 18.

the initial planning and construction requirements of the CSO Control Policy when they issued its NPDES permit in 1997. Region 9, U.S. EPA & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *NPDES Permit for City and County of San Francisco's Oceanside Water Pollution Control Plant and the Westside Wet Weather Combined Sewer System*, NPDES No. CA0037681, Order 97-044, at 6 (1997) ("1997 Permit") (A.R. 9, App. 7); *see also* CSO Policy § I.C.1, 59 Fed. Reg. at 18,690.

In subsequent permit renewals, the Region and the California RWQCB determined that San Francisco's LTCP was consistent with the CSO Control Policy and, thus, did not require San Francisco to conduct the planning and construction tasks required by the CSO Control Policy. Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *NPDES Permit for San Francisco Oceanside Treatment Plant, Sw. Ocean Outfall, and Westside Wet Weather Facilities*, NPDES No. CA0037681, Order R2-2003-0073, at 10, 17 (Aug. 20, 2003) ("2003 Permit") (A.R. 9, App. 5) (citing CSO Control Policy § I.C.1); Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *NPDES Permit for San Francisco Oceanside Water Pollution Control Plant & Collection System, including the Westside Wet Weather Facilities*, NPDES No. CA0037681, Order R2-2009-0062, at 10 (Aug. 12, 2009) (A.R. 81) ("2009 Permit") (determining San Francisco's implementation of its LTCP is "consistent with" CSO Control Policy). In 2011, San Francisco began a Sewer System Improvement Program ("SSIP")

as a twenty-year, citywide investment to enhance the reliability and performance of its wastewater system. Memorandum from Becky Mitschele, NPDES Permit Writer, NPDES Permits Section, to Admin. Record for NPDES Permit No. CA0037681, at 5 (Apr. 15, 2019) (A.R. 91) (“Memo to File”). The SSIP contains information about how the combined sewer system, the sewershed, and the system’s management approach have changed since 1997, including various studies that analyze collection system improvements and that identify collection system opportunities within the drainage basin. *See id.* at 5, 10-11.

In 2014, the Region shared an early draft NPDES permit with San Francisco and received comments from San Francisco in January 2015. San Francisco, Comments on Admin. Draft NPDES Permit (Jan. 8, 2015) (A.R. 24). The permit reissuance process was put on hold when the Region and the California RWQCB sought additional information. In 2016, the Region sent an information request after receiving reports of “raw sewage mixed with stormwater * * * overflowing from the City and County of San Francisco’s [CSS] into streets, sidewalks, residences and businesses.” Letter from Kathleen H. Johnson, Dir., Enforcement Div., Region 9 U.S. EPA, to Harlan Kelly, Gen. Manager, S.F. Pub. Utils. Comm’n, Request for Information under Clean Water Act Section 308(a) (Feb. 16, 2016) (A.R. 146a). In 2017, California RWQCB sent San Francisco a request for additional monitoring data to better understand the quality of the wet weather discharges. Letter from Bruce H. Wolfe, Exec. Officer, California

RWQCB, S.F. Bay Region, to Brian Henderson, Acting Assistant Gen. Manager, Wastewater Enterprise, Clarification of Monitoring Requirements and Requirement for Information (Nov. 29, 2017) (A.R. 145).

In March 2018, San Francisco submitted a Long Term Control Plan Synthesis to the California RWQCB in the context of its Bayside permit requirements.⁶ S.F. Pub. Utils. Comm'n, *San Francisco Wastewater Long Term Control Plan Synthesis for the Bayside Permit (NPDES No. CA0037664) & the Oceanside Permit (NPDES No. CA0037681)* (Mar. 30, 2018) (A.R. 88b) (“Synthesis”).⁷ The stated objective of the Synthesis is “to describe the historical planning efforts undertaken” by San Francisco “to minimize and control wet

⁶ San Francisco’s “Bayside” combined sewer system discharges to the San Francisco Bay and includes the Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and related wastewater collection system. These discharges are authorized under a separate NPDES permit issued solely by the California RWQCB. See Cal. Reg’l Water Quality Control Bd., S.F. Bay Region, *San Francisco Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and Wastewater Collection System, NPDES No. CA0037664, Order R2-2013-0029*, attach B (Facility Map) at B-1, attach. F (Fact Sheet) at F-3 to F-4, (Aug. 19, 2013) (A.R. 79a) (“Bayside Permit”).

⁷ San Francisco submitted the *Synthesis* to the California RWQCB pursuant to section VI.C.5.c.v. of the Bayside Permit, which required it to “synthesize and update its Long-Term Control Plan into one document that reflects current circumstance.” Bayside Permit at 25. In the Fact Sheet for the Permit that is currently before the Board, the permitting authorities described the *Synthesis* as “summariz[ing] the various documents that comprise [San Francisco’s] historical planning process and LTCP.” Fact Sheet at F-30.

weather discharges from the combined sewer system.” *Id.* at 4. Among other things, the Synthesis identifies various documents that San Francisco maintains “comprise” the LTCP for its combined sewer system. *Id.*

In response to the submittal, California informed San Francisco that the Synthesis “[did] not adequately address the minimum required elements” of the Bay-side Permit requirement to update its LTCP. Letter from Bill Johnson, Chief, NPDES Wastewater & Enforcement Div., Cal. RWQCB, S.F. Bay Region, to Amy Chastain, Regulatory Program Manager, S.F. Pub. Utils. Comm’n, regarding Comments on Synthesis, at 1 (Sept. 7, 2018) (A.R. 85). For example, California explained that appendix A of the Synthesis “summarizes documents that comprise [San Francisco’s] Long-Term Control Plan through March 1994, but this does not reflect current circumstances.” *Id.* San Francisco gave a written response to California’s comments, but San Francisco did not, and has not, submitted a revised Synthesis. Letter from Amy Chastain, Regulatory Manager, S.F. Pub. Utils. Comm’n, to Bill Johnson, Cal. RWQCB, regarding Comments on Synthesis & Update (Sept. 21, 2018) (A.R. 88a) (“S.F. Resp. to RWQCB Cmts. on Synthesis”); *see also* Oral Argument Transcript at 26-27 (Oct. 8, 2020) (“Oral Arg. Tr.”) (Counsel for San Francisco stating that he is unaware of an updated plan or synthesis document having been sent to either permitting authority or whether either permitting authority agreed with San Francisco’s September 21, 2018 letter addressing the deficiencies identified by the California RWQCB). The Region determined that,

notwithstanding the prior CSO exemption, it was both appropriate and necessary to include a requirement in the Permit at issue here that San Francisco update its LTCP. *See* Fact Sheet at F-30 to F-31 (explaining bases for requirement to update LTCP); Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, Response to Comments, at 16-17 (Aug. 30, 2019) (A.R. 10) ("Resp. to Cmts."). The permitting authorities also added a reporting requirement to the permit for isolated sewer overflows and a narrative prohibition against causing or contributing to a violation of any water quality standards in the receiving waters. Fact Sheet at F-26, F-30 to F-31; Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project, NPDES Permit No. CA0037681*, §§ V, VI.C.5.a.ii.b at 9, 17 (issued Dec. 10, 2019) (A.R. 17) (signed by Region) ("Permit").

In April 2019, the Region and the California RWQCB issued a public notice and opportunity to comment on the draft permit within 30 days. Resp. to Cmts. at 26. In September 2019, the Region and the RWQCB held a hearing on the permit. Transcript of S.F. Bay Reg'l Water Quality Control Bd. Hearing (Sept. 11, 2019). In addition to San Francisco's voluminous comments on the permit, the Region and the California RWQCB also received comments from numerous members of the public asking the permitting authorities to stop allowing San Francisco to discharge sewage into people's homes and businesses. Resp. to

Cmts. at 1-9. The permit was signed by the California RWQCB on September 12, 2019, and became effective as to discharges to state waters on November 1, 2019. Region 9, U.S. EPA, & Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, *Oceanside Water Pollution Control Plant, Wastewater Collection System, and West-side Recycled Water Project, NPDES Permit No. CA0037681*, at 2 (Sept. 11, 2019) (A.R. 15). The Region signed the Oceanside Permit, NPDES No. CA0037681, on December 10, 2019, with an effective date of February 1, 2019. *See* Permit at 2-3. San Francisco petitioned the Board for review of the Region's permit decision in January 2020.⁸

V. ANALYSIS

San Francisco's petition challenges three permit provisions: (1) the generic water quality based effluent limitations at section V and attachment G.I.I.1; (2) the reporting of isolated sewer overflows at section VI.C.5.a.ii.b; and (3) the long-term control plan update at section VI.C.5.d. Pet. at 2. After San Francisco filed its Petition for Review, and pursuant to 40 C.F.R. § 124.16, the Region issued a Notice of Stay, identifying which provisions of the permit were stayed pending appeal. U.S. EPA Region 9 Notice of Stay of Contested Conditions for NPDES Permit No. CA0037681 (Feb. 7, 2020) ("Notice of Stay"). In that notice, the Region

⁸ After San Francisco filed its petition with the Board and the Region issued its notice of stayed permit conditions, substantial motions practice and supplemental briefing ensued.

characterized the NPDES authorizations for the Oceanside CSS as two permits—a state permit and a federal permit—rather than as a single, jointly issued permit.⁹ As a result, in its Supplement to the Petition, San Francisco seeks either a determination that the Permit is a single, jointly issued permit, or a remand of the Permit with directions to the Region to develop a record that supports the issuance of a standalone federal permit. San Francisco’s Supplement to Petition for Review 33 (Jun. 30, 2020) (“Supp. to Pet.”). The Board addresses San Francisco’s argument in its Supplement to the Petition first.

A. *One Permit Versus Two*

In issuing their separate authorizations to San Francisco to discharge from the City’s existing Oceanside CSS into the Pacific Ocean, the Region and the California RWQCB consolidated their respective permit processing, as is allowed by 40 C.F.R. § 124.4(c)(2), for efficiency and coordination purposes. Combining that process resulted in a consolidated fact sheet, draft permit, public comment period, response to comments document, and a final consolidated NPDES permit signed by each of two permitting authorities (one federal, one state) albeit on two different dates (three months apart). *See* Permit at 2-3 (including unnumbered EPA

⁹ Additional history and background on this issue is available in the Order Denying San Francisco’s Motion to Stay (May 11, 2020) (Docket No. 14) (“Order Denying Motion to Stay”), and the related filings in the appeal docket for this case.

signature page); Fact Sheet at F-3, F-34 to F-35; Resp. to Cmts. at 1.

Under regulations governing permit processing, EPA and an approved state “may agree to consolidate draft permits whenever a facility or activity requires permits from both [permit issuers].” 40 C.F.R. § 124.4(c)(2). Although San Francisco argues that the California and EPA permit processes could not have been consolidated under section 124.4(c)(2) because the Region “fail[ed] to follow any of the procedures required for permit consolidation,” San Francisco also acknowledges that the regulations do not specify required procedures for consolidation. Supp. to Pet. at 25-26; *see also*, Order Denying San Francisco’s Motion to Stay 5 n.4 (May 11, 2020) (Docket No. 14) (“Order Denying Motion to Stay”). The regulations also do not require any particular documentation of the agreement or intent to consolidate. *See* Order Denying Motion to Stay at 5 n.4. We also note that a joint permit was issued to San Francisco for all three prior NPDES permits authorizing the operation of the Oceanside CSS. *See, e.g.*, 1997 Permit, 2003 Permit, and 2009 Permit. San Francisco identifies no other regulatory process for combining the permit processes. As such, we conclude that the permitting process for these two authorizations was consolidated under 40 C.F.R. § 124.4(c)(2).

After San Francisco appealed to the Board, the Region issued the Notice of Stay of the contested permit conditions, as it is required to do under 40 C.F.R. section 124.16. In that notice, the Region for the first time

described the dual authorization as two permits—a state permit and a federal permit. San Francisco objects to this characterization.¹⁰

As we explained in our order denying San Francisco’s motion to stay the Permit pending appeal, consolidation of the permitting process (including the consequent issuance of one consolidated permit document) does not alter the fact that there are two permit issuers, each with its own legal authority. Order Denying Motion to Stay at 9-11. The purpose of consolidation is to make the permitting process more efficient but, once the permitting process is complete and the consolidated permit is issued, the authorizations are distinct for the purposes of appeal,¹¹ stay, and enforcement as a matter of law. *See id.* (explaining that the

¹⁰ This issue was fully briefed after the Board granted San Francisco’s motion to supplement its petition on this issue. *See* Supp. to Pet.; U.S. EPA Region 9 Response to San Francisco’s Supplement to Petition for Review (Jul. 23, 2020) (Docket No. 23); San Francisco’s Reply in Support of Supplement to Petition for Review (Sept. 11, 2020) (Docket No. 30).

¹¹ Just as the Region’s authorization must be appealed through the Board using the administrative process outlined in 40 C.F.R. § 124.19 before proceeding to the federal judicial process, the California RWQCB authorization must be challenged through the State’s administrative and judicial processes. *See* Fact Sheet at F-35; 40 C.F.R. § 123.30; Letter from Michael Montgomery, Exec. Officer, Cal. RWQCB, S.F. Bay Region, to Michael Carlin, S.F. Pub. Utils. Comm’n, 2-3 (Oct. 29, 2019) (A.R. 134) (citing Cal. Water Code §§ 13320, 13321, 13330). In fact, San Francisco is separately challenging the Oceanside CSS Permit in the California state court system. Pet. at 2, n.1 (referring to *City and Cty. of San Francisco v. RWQCB*, Case RG19042575 (Alameda Superior Court)).

Permit itself, whether consolidated or not, does not alter the individual legal authority of either permitting authority to stay or enforce the permit). In other words, the permit authorizations in this case involve one document derived from one consolidated permitting process resulting in dual authorizations by EPA and the California RWQCB for the continued operation of the facility, regardless whether the authorizations are characterized as one permit or two.¹²

In addition, the outcome of the issues raised in this appeal would be no different whether the NPDES authorizations for the Oceanside CSS are characterized as one permit versus two. The Region does not rely on its consolidation of the permitting process for its authority to include a narrative prohibition against causing or contributing to a violation of any water quality standards, to require reporting on isolated sewer overflows, or to require San Francisco to update its long-term control plan. To the extent that San Francisco preferred that the permitting processes not be

¹² We are not unsympathetic to the complexity of this permitting process, particularly given the Region's notice of stay of the contested permit conditions. As we described in our order denying San Francisco's motion to stay, both permitting authorities have referred to the permit in this matter in both singular and plural terms. *See* Order Denying Motion to Stay at 11 n.10. Adding to the confusion in this matter is the fact that the California RWQCB signed the authorization three months before the Region, resulting in different effective dates but identical expiration dates. As we stated before, the apparent confusion in this case suggests that it may behoove all involved if each permitting authority provides greater clarity for permittees in future permitting decisions. *Id.*

combined and that each permitting authority proceed with its own permitting process and issue its own separate permit, San Francisco could have recommended (and may recommend in the future) that the process not be consolidated. *See* 40 C.F.R. § 124.4(c)(3).¹³

In sum, San Francisco fails to establish that either the consolidated NPDES permitting process, resulting in two authorizations (one by the Region and the other by the California RWQCB), or the differing characterizations of the dual authorizations as either one or two permits constitutes clear error.

B. Narrative Prohibition Against Violating Water Quality Standards

Section V of the Permit, entitled “Receiving Water Limitations,” prohibits discharges from “caus[ing] or contribut[ing] to a violation of any applicable water

¹³ The rule allowing for consolidation of the permitting process, 40 C.F.R. § 124.4, also allows the permittee to recommend whether or not the processing of their applications should be consolidated, *id.* § 124.4(c)(3). San Francisco did not contest the consolidation of the permit process either for this permit term or in prior permit issuances. The rule also provides for the deconsolidation of the permits if joint processing will result in unreasonable delay in the issuance of one or more permits. *Id.* § 124.4(a)(2). Presumably, this would be appropriate in situations where one authority is prepared to issue a permit, but the other has not reached the same conclusion. Again, this issue arose only after the Region characterized the permits in this matter as two permits, after the authorizations were issued and the appeal was docketed.

quality standard * * * for receiving waters.”¹⁴ Permit § V, at 9. San Francisco argues that the Region’s inclusion of that prohibition is based on “clearly erroneous conclusions of law and findings of fact and [the provision fails] to provide fair notice” of what is required to comply. Pet. at 12.¹⁵

¹⁴ The prohibition against violating any applicable water quality standard also incorporates the exception set forth in State Water Board No. WQ 79-16 granting San Francisco an exemption from the California ocean quality control plan (which prohibits discharges of wastewater to the Ocean that do not conform to its standards) to allow an average of eight wet weather overflows per year. Permit § V, at 9; see State Water Board Order No. WQ 79-16 at 18; Cal. State Water Resources Control Bd., *Water Quality Control Plan—Ocean Waters of California*, at 4, 13-33 (2019) (A.R. 101) (“Ocean Plan”).

¹⁵ Section G.I.I.1 of attachment G to the Permit provides that “[n]either the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.” Permit attach. G at G-2. This provision is part of California’s Regional Standard Provisions and Monitoring and Reporting Requirements that have been incorporated into nearly all California NPDES permits since 1993. Resp. to Cmts. at 13. For example, an identical provision was included in San Francisco’s 2009 permit. See 2009 Permit attach. G (supp. to attach. D) at 3. San Francisco challenges both the narrative prohibition at G.I.I.1 in attachment G in addition to the narrative prohibition in section V of the permit. Pet. at 12-23. San Francisco presents identical arguments with respect to both provisions, characterizing them as imposing “generic, boilerplate [water quality-based effluent limitations].” *E.g.*, Pet. at 12. The Board’s decision with respect to these provisions does not differ and, for ease of discussion, we will address the language in section V specifically. However, our disposition of this issue applies to both the language in Section V and the language in Attachment G.I.I.1.

As a preliminary matter, we note two things. First, San Francisco characterizes the contested provision in section V of the Permit as a water quality-based effluent limitation or “WQBEL.” Pet. at 12-23. The Region also uses the term “WQBEL” to describe the provision in its response brief. U.S. EPA Region 9 Response to San Francisco’s Petition for Review 15-26 (Feb. 28, 2020) (Docket No. 6) (“Resp. Br.”). Notwithstanding the parties’ characterization, we refer to the contested provision as a *prohibition* against exceeding (or violating) water quality standards of the receiving waters. We do so to distinguish this limitation from other facility-specific water quality based effluent limits set forth elsewhere in the Permit that are not contested in this appeal. This distinction between the receiving water limitation and other end-of-pipe water quality based effluent limits is also consistent with the permit record. See Permit §§ IV.B, V, VI.C.5, at 8, 9, 15; Fact Sheet at F-17 to F-18, F-26.¹⁶

¹⁶ San Francisco argues that the Region provided no meaningful distinction between a “receiving water limitation” and a water quality-based effluent limitation. Pet. at 10, 15-16. To the contrary, in its response to comments document, the Region described a receiving water limitation as “directly derived from the applicable water quality standards,” Resp. to Cmts. at 11, and a water quality-based effluent limitation as a “restriction * * * on quantities, rates, and concentrations of chemical, physical, biological and other constituents [that] are discharged from point sources,” *id.* (quoting CWA § 502(11), 33 U.S.C. § 1362(11)). The Region explained that “[c]ompliance with receiving water limitations is determined with respect to the discharger’s effect on the receiving water, whereas compliance with effluent limitations is based on the quality of the effluent.” *Id.* In other words, water quality-based effluent limits (or WQBELs) might be thought of as

Second, the City of Lowell, Massachusetts, challenged a nearly identical NPDES permit provision in an appeal before the Board and raised arguments similar to those that San Francisco makes here. *See In re City of Lowell*, 18 E.A.D. 115, 175-88 (EAB 2020) (determining that region did not clearly err in including provision that stated facility’s discharge “shall not cause a violation of the water quality standards of the receiving water”). In *Lowell*, the Board upheld the provision after determining that the petitioner failed to demonstrate that the region lacked legal authority, that the prohibition was unnecessary, or that the prohibition infringed upon fair notice requirements.

1. *The Narrative Prohibition is Not Contrary to Law*

We address first the Region’s legal authority to impose a narrative prohibition against violating water

specific “end-of-pipe” limits on what is being discharged, whereas the narrative receiving water limitations might be thought of as a check on the effect that the discharge has on the quality of the receiving water. *See* U.S. EPA, Combined Sewer Overflows: Guidance for Long-Term Control Plan, at 1-22, 1-23 (1995) (A.R. 95b) (distinguishing end-of-pipe measures of success from receiving water measures of success); *see also* U.S. EPA, CSO Post Construction Compliance Monitoring Guidance, at 45 (May 2012) (A.R. 94) (distinguishing monitoring for achieving end-of-pipe goals from quality of receiving water). In sum, the Region’s response to San Francisco’s comments on this issue was more than enough to meet the requirements of 40 C.F.R. § 124.17(a)(2). *See In re Circle T Feedlot, Inc.*, 14 E.A.D. 653, 674-76 (EAB 2010) (discussing the permitting authority’s obligation to respond to comments under 40 C.F.R. § 124.17(a)(2)).

quality standards (that is, a prohibition based on the effect that a discharge will have on receiving waters), in addition to the Permit's specific water quality based effluent limits (that is, limits based on the end-of-pipe quality of the effluent). *See* Pet. at 13-16 (arguing that both the narrative "receiving water limitation" and the specific WQBELs are designed to protect water quality standards, but the receiving water limitations were not properly developed according to the standards to permit process set forth for WQBELs). For the reasons set forth below, in *Lowell*, and in the response to comments document for this Permit, San Francisco fails to demonstrate that the Region's inclusion of a narrative prohibition against violating water quality standards in the Permit is based on a clearly erroneous conclusion of law. *See City of Lowell*, 18 E.A.D. at 175-80; Resp. to Cmts. at 11-14.

Clean Water Act section 402 requires permit issuers to include—in every NPDES permit—conditions that ensure that the discharge will meet the requirements of Clean Water Act section 301, *including* those necessary to meet water quality standards. *See City of Lowell*, 18 E.A.D. at 175; CWA §§ 402, 301(b)(1)(C), 33 U.S.C. §§ 1342, 1311(b)(1)(C); Resp. to Cmts. at 12. NPDES regulations implementing the CWA also require that permits include "any" limitation necessary to achieve water quality standards. 40 C.F.R. § 122.44(d); *see* Resp. to Cmts. at 12. Although 40 C.F.R. § 122.44(d) sets forth a process for deriving pollutant-specific effluent limits when the permitting authority determines that a particular pollutant has the reasonable

potential to cause or contribute to an exceedance of water quality standards, the regulations do not require all permit conditions necessary to meet water quality standards to be expressed in terms of specific pollutant-by-pollutant limitations. *See* 40 C.F.R. § 122.44(d); Resp. to Cmts. at 12.

Additionally, CSOs must meet the requirements of the CWA, including compliance with water quality standards and the protection of designated uses. CSO Control Policy, 59 Fed. Reg. at 18,688-89; *id.* § IV.B, 59 Fed. Reg. at 18,695-96; Resp. to Cmts. at 12. The CSO Control Policy specifically recognizes that Phase I permits need to require compliance “expressed in the form of a narrative limitation.” CSO Control Policy § IV.B, 59 Fed. Reg. at 18,696; *see* Resp. to Cmts. at 12. Similarly, the guidance document for CSO permit writers provides that permit writers should include in Phase II permits narrative permit language providing for the attainment of applicable water quality standards, in addition to facility-specific performance standards.¹⁷ CSO Guidance for Permit Writers at 4-27; *see* Resp. to Cmts. at 12.

Provisions generally prohibiting discharges from violating water quality standards are frequently included in NPDES permits in addition to more specific

¹⁷ The CSO guidance document for permit writers provides that “[i]n addition to” performance standards designed to meet water quality standards, “the permit writer should include narrative permit language providing for the attainment of applicable [water quality standards].” CSO Guidance for Permit Writers at 4-27 (emphasis added).

“end of pipe” effluent limits. *See, e.g., City of Lowell*, 18 E.A.D. at 176; *see also, e.g., Ohio Valley Envtl. Coal. v. Fola Coal Co.*, 845 F.3d 133, 136, 141-142 & n.5 (4th Cir. 2017) (recognizing that EPA often includes such provisions in NPDES permits). As the Region explained in its response to comments document, provisions prohibiting discharges that result in violations of water quality standards incorporate enforceable assurances that water quality standards will be met. Resp. to Cmts. at 11-12. In effect, they serve as “backstops” in the event that more specific limits or provisions prove inadequate. *See* Transcript of S.F. Bay Reg’l Water Quality Control Bd. Hearing at 14:16-20 (Sept. 11, 2019) (A.R. 14); Oral Arg. Tr. at 70, 71-72, 74. Such provisions also provide a mechanism for addressing “water quality violations that a permittee causes due to unanticipated circumstances or changes to effluent quality.” *City of Lowell*, 18 E.A.D. at 176.

As we stated in *Lowell*, federal courts have recognized the authority of permit issuers to include narrative prohibitions against violations of water quality standards that are similar to the one at issue here. *City of Lowell*, 18 E.A.D. at 176-77 (citing *Nw. Envtl. Advocates v. City of Portland*, 56 F.3d 979, 989-90 (9th Cir. 1995); *PUD No. 1 of Jefferson Cty. v. Wash. Dep’t of Ecology*, 511 U.S. 700, 716-18 (1994)); Resp. to Cmts. at 13; *see also Fola Coal*, 845 F.3d at 139-143 (determining that permit condition prohibiting permittee from causing violation of applicable water quality standards was enforceable permit term, recognizing EPA’s consistent use of such permit conditions, and noting

acceptance by courts of EPA's view when interpreting similar provisions); *Nat. Res. Def. Council, Inc. v. Cty. of Los Angeles*, 725 F.3d 1194, 1199, 1201, 1205 (9th Cir. 2013) (addressing enforcement of permit that included provision prohibiting "discharges from [the facility] that cause or contribute to the violation of the Water Quality Standards or water quality objectives"), *cert. denied*, 572 U.S. 1100 (2014)). In upholding the enforcement of a similar narrative provision, the U.S. Court of Appeals for the Ninth Circuit in *Northwest Environmental Advocates v. City of Portland* explained that "the Supreme Court recognized that the numerical criteria components of state water quality standards cannot reasonably be expected to address all the water quality issues arising from every activity which can affect the State's hundreds' of individual water bodies," and "requiring the States to enforce only the numerical criteria component of their water quality standards 'would in essence require the states to study to a level of great specificity each individual surface water to ensure that the criteria * * * fully protect the water's designated uses.'" 56 F.3d at 989-990 (quoting *PUD No. 1 of Jefferson County*, 511 U.S. at 717-18).

San Francisco contends, as did the petitioner in *Lowell*, that the cases on which the Region relies in support of its authority to include a narrative prohibition are enforcement cases and, as such, are inapposite. Pet. at 15. In *Lowell* we explained that, notwithstanding the enforcement posture of these cases, the conclusions regarding a permitting authority's basis for including narrative prohibitions against violating

water quality standards are instructive and strongly support the proposition that permitting authorities are authorized to include such provisions. See *City of Lowell*, 18 E.A.D. at 177-178 (analyzing *Nw. Envtl. Advocates*, 56 F.3d at 989-90, and *Fola Coal*, 845 F.3d at 145-47). San Francisco also suggests that the authorities cited by the Region are a reference to narrative WQBELs like the ones set forth in this Permit at section VI.C.5.c,¹⁸ rather than the narrative prohibition expressed in section V. Pet. at 16. We disagree. The enforcement cases cited involved the application of permit language almost identical to the language at issue here. See *Nw. Envtl. Advocates*, 56 F.3d at 985 (“no wastes shall be discharged and no activities shall be conducted [that] will violate Water Quality Standards”); *Fola Coal*, 845 F.3d at 136 (“discharges * * * are to be of such quality so as not to cause violation of applicable water quality standards”).

San Francisco also cites *American Paper Institute v. EPA* for the proposition that water quality standards are not a limit that can be violated because water quality standards themselves “‘have no effect on pollution,’”

¹⁸ Section VI.C.5.c of the Permit contains narrative WQBELs applicable to wet weather discharges from CSO outfalls and the deepwater ocean outfall. Fact Sheet at F-25. As such, it satisfies the CSO Control Policy’s requirement to implement San Francisco’s LTCP by incorporating it into the Permit to satisfy water quality-based requirements during wet weather. See Fact Sheet at F-30. The narrative controls include requirements such as “optimize system operations to minimize combined sewer discharges and maximize pollutant removal during wet weather,” “use all facilities * * * to store or treat wet weather flows to the maximum extent practicable.” Permit § VI.C.5.c., at 20.

rather they are “used as the basis for specific effluent limitations in NPDES Permits.” Pet. at 15 (quoting *Am. Paper Inst. v. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1993)). *American Paper*, however, involved a challenge to an EPA rule requiring permit writers to use one of three methods to interpret state water quality standards when establishing pollutant-specific effluent limitations in permits. 996 F.2d. at 348, 350 (upholding the rule codified at 40 C.F.R. § 122.44(d)(1)(vi)). *American Paper* is thus inapposite to whether, in addition to pollutant-specific water quality-based effluent limitations, a permit writer may *also* include a narrative prohibition against violating water quality standards. The same is true for *Natural Resources Defense Council Inc. v. EPA*, which San Francisco cites for the proposition that water quality standards are a critical component for setting applicable limitations in individual permits. Pet. at 15 (citing *Nat. Res. Def. Council, Inc. v. EPA*, 16 F.3d 1395, 1399 (4th Cir. 1993)). Again, that proposition does not speak to whether a permit writer may include a narrative prohibition against violating water quality standards in addition to specific water quality-based effluent limitations. See *Nat. Res. Def. Council*, 16 F.3d at 1400, 1405, 1406 (noting that states can establish narrative criteria to supplement numerical criteria and rejecting a challenge to EPA’s approval of specific state water quality standards). In sum, neither the CWA nor the caselaw supports San Francisco’s argument that a broad narrative prohibition against violating or exceeding water quality standards, in addition to more specific water quality-based effluent

limitations, is based on a clearly erroneous conclusion of law.

San Francisco also contends that the narrative prohibition is illegal because the Region failed to follow the standards-to-permit framework set forth in the permit writers manual, which serves as guidance in implementing CWA requirements and regulations. Pet. at 13-15 (*citing* Office of Wastewater Mgmt., U.S. EPA, *NPDES Permit Writers' Manual* at 6-1 to 6-2, 6-12 to 6-23 (2010) ("Permit Writers' Manual")); *see also* Pet. at 21 (arguing that a discharger cannot "violate" a water quality standard because that standard must first be "translated" into a permit limit). In its reply, San Francisco specifically points to the provisions for determining pollutant-specific effluent limits in 40 C.F.R. § 122.44(d)(1). Reply Br. at 4-5. The framework in the permit writer's manual to which San Francisco refers is designed to determine specific water quality-based effluent limitations and not the type of general narrative prohibition that is at issue here. Additionally, as stated above and described by the Region in its response to comments document, although 40 C.F.R. § 122.44(d) provides a process for establishing pollutant-specific effluent limits, the regulations do not require that all permit conditions necessary to meet water quality standards be expressed in terms of specific pollutant-by-pollutant numeric limitations. *See* 40 C.F.R. § 122.44(d); Resp. to Cmts. at 12. Nor do the regulations prohibit the permitting authority from determining that a narrative prohibition against violating water quality standards in the receiving waters is

appropriate. *See Nw. Envtl. Advocates*, 56 F.3d at 986 (rejecting argument that “only those water quality standards that are translated into effluent limitations” may be enforced). As such, the regulations and guidance setting forth the standards-to-permit process are inapposite to the narrative prohibition at issue here.

In sum, San Francisco has not met its burden to demonstrate that the Region lacked legal authority to impose the prohibition against violating water quality standards in the receiving waters.

2. The Region’s Factual Basis for the Provision

San Francisco also argues that the Region’s inclusion of the prohibition against violating water quality standards in the Permit is based on clearly erroneous findings of fact. Pet. at 17-19. The Region explained that it included the prohibition as a backstop “to ensure compliance with applicable water quality standards in accordance with the CWA and [its implementing regulations].” Fact Sheet at F-26; *see also* Resp. to Cmts. at 11; Oral Arg. Tr. at 70, 71-72. In its comments on the draft permit, San Francisco asserted that compliance with applicable WQBELs in the Permit’s long-term control plan provision (section VI.C.5.c.) will result in attainment of applicable water quality standards and thus the narrative general prohibition is unnecessary. *See* Letter from Greg Norby, Assistant Gen. Manager, Wastewater Enter., to Jessica Watkins, Cal. RWQCB, S.F. Bay Region, attach. B at 3-5 (May 20, 2019) (attaching comments) (A.R. 9) (“San Francisco

Comments”); Pet. at 18, 19-20. In its response to comments, based on the design of the Oceanside CSS and other factors related to historical assumptions, exceptions, and current conditions, the Region explained that the effluent limits in section VI.C.5.c. and elsewhere in the Permit may not “necessarily achieve water quality standards,” and therefore the narrative prohibition against violating water quality standards in the receiving water is “necessary to ensure compliance with applicable water quality standards.” Resp. to Cmts. at 11, 15; *see also generally* Resp. to Cmts. at 14-16.

Contrary to San Francisco’s argument that the Region provided no support for the determination that WQBELs in section VI.C.5.c. may not, alone, achieve water quality standards, Pet. at 17, the record in fact supports the Region’s conclusion. As discussed in the Fact Sheet, in 1972, the California State Water Resources Control Board adopted water quality standards for the Pacific Ocean to protect beneficial uses. *See* Fact Sheet at F-10 to F-11 (describing Cal. State Water Res. Control Bd., *Water Quality Control Plan—Ocean Waters of Cal., Cal. Ocean Plan* (1972, rev. 2019) (A.R. 101) (“Ocean Plan”). The Ocean Plan is applicable to discharges both within and outside of the territorial waters of the state “to assure no violation of [the water quality standards in] the Ocean Plan will occur in ocean waters.” Ocean Plan at 67. Notwithstanding the water quality standards set forth in the Ocean Plan, in 1979, the California State Water Quality Control Board (“State Water Board”) granted San Francisco a

limited exception to the requirements of the Ocean Plan, by allowing San Francisco to discharge an average of eight overflows per year from its outfalls during wet weather. Fact Sheet at F-11 to F-12. The Oceanside CSS was thus *designed and constructed* not to contain all stormwater runoff (contrary to the goal of the CWA to eliminate all CSOs), but instead to allow CSOs, namely a long-term average of eight combined sewer discharges annually. *See* Fact Sheet at F-7.¹⁹

Notwithstanding the exception granted to San Francisco, the State Water Board Order also provided that San Francisco was to comply with the Ocean Plan “to the greatest extent practical,” and also provided that EPA or the California RWQCB “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.” Fact Sheet at F-12; *see also* Cal. State Water Resources Control Bd., Order No. WQ 79-16: In the Matter of the Request for an Exception to the 1978 Water Quality Control Plan for Ocean Waters of California 19 (1979) (A.R. 102) (“State Water Board Order No.

¹⁹ *See also* 2009 Permit, attach. F (Fact Sheet) at F-5 (“[the facility was] designed to achieve a long term average of eight discrete CSOD events per year.”); 2003 Permit at 10 (“The system was designed and built based upon historical rainfall data to not exceed the overflow frequencies specified in Order No. 79-16.”); 1997 Permit at 4 (“The long-term average of 8 overflows per year was established as the Westside design goal by the Board after an evaluation of costs and benefits.”).

WQ 79-16”). Additionally, although the exception was presupposed to be contingent upon protecting beneficial uses of ocean waters, the State Water Board also acknowledged that “to some degree,” the exception itself would *require* an exception to the regulatory mechanisms meant to protect beneficial uses. State Water Board Order No. WQ 79-16 at 7-8. Thus, the design and construction of the Oceanside CSS and the exception contained in State Water Board Order WQ 79-16 provide support to the Region’s determination that the facilities’ discharges may not achieve water quality standards.

The aim of the CWA, by virtue of the CSO Control Policy, is to bring combined sewer discharges into compliance with the CWA, “including compliance with water quality standards *and* protection of designated uses.” CSO Control Policy, 59 Fed. Reg. at 18,688 (emphasis added). As the Region explained, the CSO Control Policy contemplates that water quality standards might not be attained and requires the permittee to submit a revised control plan in the event that they are not. *Id.*; *see also* CSO Control Policy §§ I.C., IV.B.2.g, 59 Fed. Reg. at 18,690, 18,696. The Permit “requires post-construction compliance monitoring to verify compliance with water quality standards and protection of designated uses as well as [to] ascertain the effectiveness of CSO controls.” Resp. to Cmts. at 15 (citing CSO Control Policy, 59 Fed. Reg. at 18,688, 18,694). In other words, the CSO Control Policy also supports the Region’s determination to address the possibility that

specific WQBELs may not be sufficient to ensure that water quality standards would be met. *Id.*

In further support of the need to protect beneficial uses of the receiving waters, the Region noted that the combined sewer discharges occur at Ocean Beach, China Beach, and Baker Beach, each of which is a popular recreational area used by the community and tourists throughout the year. *Id.* at 19-20. Between 2011 and 2014, approximately 100 million gallons of combined wastewater and stormwater were discharged from the combined sewer discharge outfalls. *Id.* at 20 (citing S.F. Pub. Utils. Comm'n, *Characterization of Westside Wet Weather Discharges and the Efficacy of Combined Sewer Discharge Controls*, at 1-3 to 1-4 (Jul. 30, 2014) (A.R. 63) (“2014 Report on Efficacy of CSD Controls”). From 2008 to 2014, recreational surveys after combined sewer discharges document that 20% of users were in contact with receiving water, and data from that timeframe show that pollutant concentrations in combined sewer discharges exceeded water quality objectives.²⁰ *Id.* (citing 2014 Report on

²⁰ San Francisco incorrectly asserts that the Region erred in stating that 20% of users were in contact with receiving water after combined sewer discharges. *See* Pet. at 27-28 (citing Resp. to Cmts. at 20). The report on which the Region relies states that 80% of users observed during or shortly after a combined sewer discharge were engaged in “non-water contact recreation.” 2014 Report on Efficacy of CSD Controls at 3-14 (cited in Resp. to Cmts. at 20). The report also illustrates that 15% of total recreational users observed were identified as “full contact” and 5% as “partial contact,” which amounts to 20% of recreational users in contact with the receiving water, during or after combined sewer discharges. *Id.* at 3-14 tbl.3-3; *see also* Resp. Br. at 22 n.12.

Efficacy of CSD Controls at 3-14 tbl.3-3 & app. A). Additionally, discharges that occur in the early Fall or Spring have the potential to impact more users since “recreational use increases when days are longer and the duration of storm events is typically shorter, which contributes to good surf conditions.” Resp. Br. at 22 (citing S.F. Pub. Utils. Comm’n, *Southwest Ocean Outfall Regional Monitoring Program, Sixteen-Year Summary Report 1997-2012*, at ii (Apr. 2014) (A.R. 62) (“Sixteen Year Summary Report”). Monitoring data for one year (July 2012—July 2013) showed that “56 of the 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*).” Resp. to Cmts. at 20 (citing Sixteen Year Summary Report at 3-7, 3-13). Of the elevated samples, 70% were associated with a combined sewer discharge event and resulted in the posting of warning or no swimming signs at beaches for seventeen days. *Id.* Given these facts, it was not unreasonable for the Region to conclude it was appropriate to “assess ways to reduce the volume, frequency, and magnitude of the combined sewer discharges” to these sensitive recreational areas to better protect beneficial uses.²¹ *See id.*

²¹ San Francisco asserts, “[t]he Region did not respond or explain how the operation of the [CSS] consistent with San Francisco-specific water quality-based effluent limitations would fail to protect beneficial uses.” Pet. at 11. The Region’s response to comments document provides a more than adequate explanation for why a narrative prohibition against violating water quality standards is needed in addition to San Francisco-specific

San Francisco argues that prior findings established that San Francisco's specific WQBELs were protective of water quality standards and that the Region failed to justify departing from those findings when the Region concluded that the prohibition against violating water quality standards in the receiving water was needed. Pet. at 18 (citing San Francisco's comments, which include citation to State Water Board Order No. WQ 79-16 as well as "decades of contrary Regional Board, State Board and EPA findings"); *see also* San Francisco Comments, attach. B at 5 (citing State Water Board Order No. WQ 79-16); Resp. to Cmts. at 15 (citing State Water Board Order No. WQ 79-16). The Region disagrees that State Water Board Order No. WQ 79-16 contained a determination that beneficial uses would be protected. Resp. to Cmts. at 15-16.

Although the order provides that exceptions to the Ocean Plan can be made *only* if the State Water Board determines that the exception will not compromise protection of ocean waters for beneficial uses, as we stated above, the State Water Board also recognized that "[t]o some degree," allowing wet weather bypasses requires an exception to the regulatory mechanisms in the Ocean Plan that are meant to protect beneficial uses. State Water Board Order No. WQ 79-16 at 8. Additionally, the wet weather exception, granted in the State Water Board Order, allowed an average of eight overflows per year, based on then-current circumstances

WQBELs in order to protect beneficial uses. *See Circle T Feedlot*, 14 E.A.D. at 674-76 (discussing the permitting authority's obligation to respond to comments under 40 C.F.R. § 124.17(a)(2)).

and then-current average rainfall records. *Id.* at 10-13, 18. The State Water Board Order also specifically provided that, notwithstanding the wet weather exception granted in the order, “if the Regional Board finds that changes in location, intensity or importance of affected beneficial uses or demonstrated unacceptable adverse impacts * * * have occurred, it may require [changes to the structure or operation of the facilities].” *Id.* at 19. Based on the language of the order we agree with the Region that State Water Board Order No. WQ 79-16 does not provide a determination that operation of the Oceanside CSS would be protective of beneficial uses in perpetuity. Nor does it render the Region’s inclusion of the prohibition against violating water quality standards in the Permit clearly erroneous.

San Francisco also points to a more than ten-year old determination in the 2009 Oceanside permitting record that the design of the system “would not compromise beneficial uses” in arguing that the Region has departed from prior findings that compliance with the LTCP would equate to compliance with water quality standards. Pet. at 18 (citing, among other things, 2009 Permit attach. F (Fact Sheet) at F-34). Determinations as to whether a permittee is in compliance with the terms of a permit, however, are not made in the context of issuing a permit. *See* Resp. to Cmts. at 15. Additionally, as discussed above and in Part V.D., below, the Region reviewed current data and determined that it was not appropriate to include a statement indicating that solely complying with the requirements of the LTCP would result in compliance with water quality

standards (which include protecting beneficial uses). Resp. to Cmts. at 14-15; *see* Memo to File at 6-8. In any event, San Francisco does not explain how a determination that water quality standards were met in the past prevents the Region from being able to determine a future requirement is appropriate, particularly when the system is decades old and was modified from its original design with additional changes planned.²² We therefore conclude that the 2009 determination on which San Francisco relies, or other prior determinations cited, does not render the Region's decision clearly erroneous.

San Francisco then invokes its post-construction monitoring as evidence that the applicable water quality standards under previous permits have been met (thus, the narrative prohibition is not needed) and argues that the Region failed to consider that information. Pet. at 19. As explained above, and in the response to comments document, the Region based its decision to include the narrative prohibition not on the monitoring data alone, but on its determination that solely complying with the end-of-pipe provisions in the LTCP

²² For example, the service life of the sewers exceeds 100 years (making the rate of failure more imminent), average rainfall totals have changed from when the exception to the Ocean Plan was implemented, the sewer system has undergone upgrades and operational changes over the years, and this Permit authorizes San Francisco to construct, own, and operate the Westside Recycled Water Project. *See* Fact Sheet at F-3; Memo to File at 6-8; *see also* Part V.D, below (discussing the need for an update to the long-term control plan, including modifications to the San Francisco CSS since built and future changes planned).

may not necessarily result in compliance with the water quality standards, including beneficial uses. Resp. to Cmts. at 15. That latter determination was based on the fact that the CSO Control Policy contemplates that water quality standards may not be met by complying with the LTCP alone, the exception to the Ocean Plan that allows San Francisco to discharge from the outfalls for an annual average of up to eight times per year, as well as its consideration of the post-monitoring information in the administrative record supporting the Region's decision here. *See* Resp. to Cmts. at 14-16, 19-20 (citing 2014 Report on Efficacy of CSD Controls at 1-4, 3-14, & tbl.3-3, and the Sixteen Year Summary Report at 3-7, 3-13); Resp. Br. at 21-22 (citing Memo to File at 6-8; Sixteen Year Summary Report at ii, 3-13; Ocean Plan at 9 tbl.3; California Integrated Water Quality Systems Project, Monitoring data from 2012-2019 for CSOs from the CSD structures for the Ocean-side Permit (A.R. 67b)); *see also* 40 C.F.R. § 124.18 (requiring Region to base its permitting decision on contents of administrative record). San Francisco has not established that the Region's consideration of post-monitoring data in determining whether beneficial uses were being met was clearly erroneous.

Finally, San Francisco argues that the prohibition at issue is not necessary because the standard reopener provision required to be included in NPDES permits addresses any uncertainty or future unknowns. Pet. at 20. In so arguing, San Francisco relies on the description of the reopener clause in the Permit Writer's Manual as allowing the permitting authority to reopen and

modify the Permit based on adverse impacts on water quality or beneficial uses. *Id.* (citing Permit Writers Manual at 9-19). San Francisco does not, however, explain or support how the requirement to include a reopener clause in the Permit prohibits the Region from also including a narrative prohibition against violating water quality standards in a reissued permit as well. Reopening and modifying a permit based on adverse impacts on water quality or beneficial uses that occur during a permit's term (the reopener provision) is different and serves a different purpose than a permit term that itself prohibits violating water quality standards in the first instance.

Given the Region's responsibility to determine what conditions are appropriate to include in the Permit, its legal obligation to ensure that water quality standards are met, the legal authority to include a narrative prohibition against violating water quality standards, and its determination that the WQBELs elsewhere in the Permit may not necessarily meet that obligation, we cannot conclude that the Region's decision here was based on clear error of fact.

3. *Fair Notice*

San Francisco's final argument on the prohibition against violating water quality standards is that the provision is so "vague" and "unclear" that the Permit condition fails to provide "fair notice" to San Francisco of its legal obligations. Pet. at 20. In *Lowell*, we explained that, to evaluate a claim of unfair notice, the

Board examines the contested permit provisions to determine if they are “confusing,” “ambiguous,” or “unclear.” 18 E.A.D. at 175, 182 (citing *In re Puna Geothermal Venture*, 9 E.A.D. 243, 262-63 (EAB 2000) (evaluating similarly-worded prohibition against discharges that will “cause a violation of the water quality standards of the receiving water”)).

As in *Lowell*, nothing in the language of the narrative prohibition against violating water quality standards in the Permit is itself unclear. *See id.* at 182. Nor is it unclear which water quality standards apply under the permit. *See id.* To the extent that San Francisco is suggesting that the language in any particular water quality standard is vague or insufficiently clear, San Francisco has not identified any such water quality standard.

In addition, the San Francisco-specific limits in section VI.C.5.c of the Permit contain narrative language such as “to minimize combined sewer discharges and maximize pollutant removal” and “to the maximum extent practicable.” Permit § VI.C.5.c, at 20. San Francisco’s argument that the narrative prohibition fails to provide fair notice is belied by San Francisco’s argument that the latter permit limits (in section VI.C.5.c) are sufficiently protective of water quality standards so as to render the narrative prohibition unnecessary. *See* Part V.B.1, above; Pet. at 19-20, 22 (citing Permit at 8, 18-20; Fact Sheet at F-25). If San Francisco maintains that the narrative limits in section VI.C.5.c. are sufficiently protective of water quality standards, *see* Pet. at 19-20, then San Francisco

must also have sufficient notice of how to comply with them. *Accord City of Lowell*, 18 E.A.D. at 183-84. If those narrative limits are sufficiently clear and not vague, the same is true for the narrative prohibition that San Francisco challenges.

C. *The Requirement to Report Isolated Sewer Overflows*

San Francisco's next challenge to the Permit involves the requirement to report on sewer overflows from the combined sewer system. Pet. at 31-44 (challenging Permit section VI.C.5.a.ii(b)). Combined sewer systems anticipate significant stormwater events and are designed to overflow directly from CSO outfalls to surface water bodies such as the Pacific Ocean. See Fact Sheet at F-3 to F-4. In addition to the anticipated CSO events from outfalls, as described in Part III.B., above, when the storage capacity of the entire system is exceeded, isolated sewer overflows ("ISOs") can occur from various points of exit other than the permitted CSO outfalls (backups into basements or onto streets through manholes, for example). CSO Guidance for Permit Writers at 4-6; NMC Guidance at 3-3. As also discussed in Part III.B, above, overflows of wastewater can be a major source of water pollution that the CSO Control Policy is designed to address. The reporting provision at issue in this petition requires San Francisco to notify and report on all sewer overflows from the combined sewer system (including those

from CSO outfalls and from isolated sewer overflows). Permit § VI.C.5.a.ii(b), at 17; Fact Sheet at F-30.²³

San Francisco contests this reporting requirement only as it applies to isolated sewer overflows and not as it applies to sewer overflows from outfalls. Pet. at 31. San Francisco essentially makes two arguments as to why it was clearly erroneous for the Region to include that reporting requirement: (1) that the Region cannot *regulate* ISOs that do not reach waters of the United States (because the Region has no Clean Water Act authority over such overflows), *id.* at 32-35, 38-44; and (2) that the Region cannot require reporting of ISOs where that reporting is premised on the need to determine whether there are capacity issues because the capacity of the system is not within the purview of EPA, *id.* at 35-38. Both of San Francisco's arguments misapprehend the function of the Permit condition at issue and fail to carry San Francisco's burden to show that the Region's inclusion of the reporting requirements constituted clear error.

As to San Francisco's first argument, it is undisputed that the Region's authority to regulate here is

²³ Section VI.C.5.a.ii(b) also sets forth various time frames within which overflows must be reported, based on the volume of the overflow. Permit at 17. For example, for sewer overflows with volumes of 1000 gallons or greater, San Francisco must submit draft reports within three business days of becoming aware of the overflow. *Id.* Additionally, for sewer overflows with volumes of 50,000 gallons or greater that reach surface waters, San Francisco must submit a technical report that explains the causes and circumstances, including the method and data used to calculate the volume, and the response actions completed and planned. *Id.*

derived from San Francisco's discharge through an outfall into the Pacific Ocean three miles offshore. *See* Part III.A, above. As an NPDES permitting authority, the Region must include permit terms that meet the requirements of the CWA, as well as the monitoring and reporting necessary to ensure compliance. The requirement to report on ISOs is not to "regulate" ISOs. Rather, the reporting requirements notify the permitting authorities of such occurrences because sewer overflows serve as an indicator of whether the CSO controls are working and the permitted system is operating as it should. *Resp. Br.* at 34; *Resp. to Cmts.* at 22-23. Even San Francisco acknowledges the usefulness of this reporting requirement, having stated during the permitting process that the frequency, cause, and location of sewer overflows from the combined sewer system may serve as "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." *See Resp. to Cmts. attach. 1* at 5, 11; *see also Pet.* at 39 n.7 (citing San Francisco Comments *attach. C*, at 1) (stating that San Francisco was "prepared to * * * develop a workable framework for the monitoring and reporting of [sewer overflows from the combined sewer system]"); *see also Resp. to Cmts.* at 22.

The Region's authority to require such reporting derives, in part, from the CSO Control Policy, which, as noted previously, was incorporated into CWA section 402(q). 33 U.S.C. § 1342(q). As described above, the CSO Control Policy establishes "Nine Minimum Controls"

as the minimum technology-based requirements to be imposed on combined sewer systems. *See* CSO Control Policy § II.B, 59 Fed. Reg. at 18,691; 40 C.F.R. § 125.3; Fact Sheet at F-29. Among other things, those minimum controls require “[p]roper operation and regular maintenance programs” for the sewer system and “[m]aximization of flow to the [plant] for treatment.” CSO Control Policy § II.B, 59 Fed. Reg. at 18,691. One of the Nine Minimum Controls requires dischargers to “[m]aximize use of the collection system for storage.” *Id.* This latter requirement refers to “making relatively simple modifications to the [combined sewer system] to enable the system itself to store wet weather flows until downstream sewers and treatment facilities can handle them.” NMC Guidance at 3-1.

The Region included the requirement to maximize storage in San Francisco’s Permit at section VI.C.5.a.ii. Permit at 16-17; *see* Fact Sheet at F-29; Resp. to Cmts. at 22-23 (citing the NMC Guidance).²⁴ EPA guidance on implementing that requirement provides that “[t]he first step in maximizing storage in a system is to identify possible locations where minor modifications can be made to the CSS to increase in-system storage.” NMC Guidance at 3-1. The guidance further provides that “more complex modifications [to the combined sewer system] (e.g., those requiring extensive construction)”

²⁴ While the NMC Guidance by itself does not mandate the reporting requirements, it does provide guidance to the Agency for implementing the CSO Control Policy according to the CWA, which authorizes the reporting requirements. NMC Guidance at 1-4, 1-6; CWA §§ 308, 402, 33 U.S.C. §§ 1318, 1342.

are meant to be evaluated as part of the system's long-term control plan. *Id.* The guidance recognizes that the “[r]isk of upstream (street, basement) flooding goes up with increased use of the collection system for [wet weather] storage,” and warns that modifications to maximize storage should be analyzed to ensure that the modifications will not cause other problems, such as street or basement flooding. *Id.* at 3-1, 3-3; *see also* CSO Guidance for Permit Writers at 4-6. Any modifications undertaken are to be documented for the permitting authority. NMC Guidance at 3-1.

The guidance document also provides that municipalities should record, summarize, and report information on incidents relating to the impacts of the combined sewer overflow system, including street and basement flooding. *Id.* at 10-4; *see also id.* at 10-2 to 10-4 (describing monitoring requirements to characterize CSO impacts and the efficacy of CSO controls, including overflow occurrences). The expectation is that the reporting will provide useful information on the general performance of the combined sewer system and the effect of control measures implemented, as well as assist in characterizing the nature and relative severity of receiving water impacts from combined sewer overflows. *Id.* at 10-4; *see also generally id.* at 10-2, 10-5 (stating that the data is expected to “provide a perspective on existing conditions and a basis for identifying progress that has been achieved”). Importantly, monitoring and reporting existing conditions allow the permitting authority to assess the performance of the

minimum control measures, as the permitting authority is required to do. *See id.* at 10-5.

The Region’s authority for the reporting requirement is also rooted in the general permitting regulations implementing the permitting provisions of the CWA. For example, permittees are required to, at all times, operate and maintain facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. *See* 40 C.F.R. § 122.41(e). CWA sections 308 and 402 and their implementing regulations authorize the permitting authority to collect information deemed necessary to ensure compliance with all applicable requirements of the CWA, including the CSO Control Policy. 33 U.S.C. §§ 1318, 1342; 40 C.F.R. § 122.43(a); *see also* Resp. to Cmts. at 27 (citing the reporting requirement as necessary to detect violations of CWA section 301 and to evaluate compliance with the nine minimum controls). Permitting authorities rely on permittees to furnish “any information” that the permitting authority may request “to determine compliance with the permit.” 40 C.F.R. § 122.41 (h).²⁵

²⁵ In its reply brief, San Francisco maintains that the Region identified only two bases for its authority to require reporting of isolated overflows—40 C.F.R. § 122.41(h) and the CSO Control Policy. Reply Br. at 15. From there, San Francisco argues that other bases for the Region’s authority (i.e., CWA §§ 308, 402) were “*post hoc*” and therefore the Region cannot rely on those provisions. *Id.* (asserting, without citation or legal support, that reliance on these statutory provisions was impermissible, presumably based on the *post hoc* rationalization doctrine). The Region’s

In issuing the draft permit, the Region explained that reporting on releases of untreated or partially treated wastewater is necessary, among other reasons, “to evaluate combined sewer system performance, and operations and maintenance practices,” and “to determine whether any diversions of untreated or partially treated wastewater result in a discharge to surface waters.” Fact Sheet at F-30. The Region also explained that the requirement implements public notification requirements of the CSO Control Policy and is necessary to determine possible impacts to public health. *Id.* at F-29 to F-30; *see also* Resp. to Cmts. attach. 1 at 12; CSO Control Policy § I.A, 59 Fed. Reg. at 18,689 (stating that among the objectives of the CSO Control Policy is the goal of “minimiz[ing] water quality, aquatic biota, and human health impacts”); *Id.* § II.B, 59 Fed. Reg. at 18,691 (identifying “[p]ublic notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts” as one of the Nine Minimum Controls).²⁶

reliance on those CWA provisions in its response brief was not impermissible inasmuch as the Permit was issued pursuant to CWA § 402, the CSO Control Policy was incorporated into CWA § 402(q), and 40 C.F.R. § 22.41 sets forth conditions applicable to all NPDES permits issued under the CWA, including the sections on which the Region relies. In any case, San Francisco has not been deprived of an opportunity to confront the Region’s rationale.

²⁶ The Permit also provides that the collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater. *See* Permit attach. G § G.I.I.2, at G-3.

In response to San Francisco’s arguments, the Region explained that complete reporting on sewer overflows—i.e., “whenever sewage or sewage mixed with stormwater exits the system, whether in streets, business[es], residences, or discharges to surface waters”—provides important information about the proper operation and maintenance of the CSS. Resp. Br. at 34 (citing Permit at 17). The Region explained in its response to comments document that monitoring and reporting sewer overflows from the combined sewer system provide the Region with a means to evaluate implementation of the Nine Minimum Controls and determine “whether San Francisco’s operations and maintenance activities are adequate,” “whether measures to maximize storage within the collection system are functioning properly,” “whether flows to the treatment works have been maximized without causing sewer backups,” “whether dry weather overflows are being controlled,” “whether actions to minimize floatables are not causing backups,” and “whether pollution prevention activities * * * are effective.” Resp. to Cmts. at 23 (citing NMC Guidance). As the Region explained, “understanding the causes of overflows is vital to determining whether and what corrective actions might be appropriate.” *Id.* at 22.²⁷ In other words, monitoring and

²⁷ San Francisco also argues that reporting on isolated sewer overflows that occur as a result of wet weather events is not appropriate because the system anticipates and is designed for such events and, thus, overflows due to wet weather events would not demonstrate improper operation or maintenance. Pet. at 35-36 (citing San Francisco Comments attach. C, at 1); *see also* Resp. to Cmts. at 24; Reply Br. at 15, 19-20. San Francisco also argues that 44 C.F.R. § 122.41(e), which requires permittees to properly

reporting ISOs provide the Region with a means to evaluate and ensure permit compliance, which the Region is required to do under the CWA. *Id.*; *see also* CWA §§ 308, 402(a)(2), 33 U.S.C. §§ 1318, 1342(a)(2) (mandating permit issuer to require reporting necessary to establish compliance with CWA and applicable regulations); 40 C.F.R. § 122.43(a).

San Francisco’s second argument—that the Region cannot base its reporting requirement on system capacity issues, because capacity is beyond the purview of the Region—again misapprehends the reporting requirement. *See* Reply Br. at 19 (arguing that “[e]valuation of system’s design capacity *is not* a component of ‘ensuring adequate operation and maintenance’ of a combined system” (citing Resp. Br. at 34); Pet. at 37 (arguing that, if Region “does not have authority to order a change in the design capacity of the system, it does not have a basis to require reporting of [ISOs] resulting from design capacity exceedances”). The Region is not requiring reporting of ISOs to assert

operate and maintain the permitted facility, is inapplicable to overflows caused by extreme storm events where the system operates as designed. Reply Br. at 19. These arguments ignore the purpose of the CSO Control Policy, which as we have stated is to ensure that controls are implemented at combined sewer systems to ensure that overflows that occur as a result of wet weather events meet the objectives and requirements of the CWA. 59 Fed. Reg. at 18,688. The arguments are also inconsistent with San Francisco’s acknowledgment that overflows can be indicative of blockages that reduce storage capacity and can be a useful metric to evaluate the effectiveness and operation of the collection system. *See* Pet. at 39 n.7 (citing San Francisco’s Comments attach. C, at 1); *see also* Resp. to Cmts. at 22.

authority over the capacity of the overall system. Rather, the Region is requiring reporting to determine the effect of the controls implemented and to confirm proper maintenance and operation of the system. The location, frequency, significance, and circumstances of sewer overflows may reflect an exceedance of the capacity of the system to contain sewage and stormwater, and that capacity issue may be due to conditions that are within the purview of the permitting authority, indicating that changes to permitted activities are necessary. For example, as discussed, the Permit (as contemplated by the CSO Policy and the Nine Minimum Controls) requires San Francisco to maximize the use of its system for storage capacity. But if in the course of “maximizing the storage capacity of the system,” San Francisco were to implement modifications that result in sewer overflows into basements or onto streets, that would be an indicator to which the Region should be alerted. NMC Guidance at 3-1, 3-3, 10-4. This is not so that the Region can require design changes or increased capacity, but so that the Region can evaluate the system’s operation pursuant to its permit, as is appropriate. *See Resp. Br.* at 34.

If the Region were to exclude either some or all ISOs from reporting requirements, the risk of under-reporting CSO capacity problems would increase, and the need for rehabilitation of the sewer system would be masked. *See Resp. to Cmts.* at 23. Additionally, the Region explained that “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." *Id.* at 22. The Region further explained that the monitoring and reporting of storm events provides the permitting authority with information on the frequency and severity of such events, which is essential to evaluating the accuracy of models used to predict the frequency and severity of future events. *See id.* at 24. For example, as the Region explained, "[f]requent sewer overflows from the combined sewer system of sufficient volume to backup into homes and businesses may be evidence that capacity improvements are needed," which could lead to the need for a revised long-term control plan or changes in the steps taken to maximize the use of the combined sewer system for storage capacity.²⁸ *Id.*

Based on the record before us, the Region's conclusion that the frequency, cause, and location of isolated sewer overflows can be indicative of whether the permitted combined sewer system is operating appropriately is not clearly erroneous. Even more, the frequency, cause, and location of ISOs can be indicative of whether storage is being maximized without causing

²⁸ Notwithstanding the Region's articulation of both its authority and need to require reporting of ISOs, San Francisco asserts that the Region failed to adequately respond to its comments on the issue. Pet. at 11. We disagree; the record reflects that the Region adequately responded. *See Resp. to Cmts.* at 22-24, 27; *Circle T Feedlot*, 14 E.A.D. at 674-76 (discussing the permitting authority's obligation to respond to comments under 40 C.F.R. § 124.17(a)(2)).

inappropriate upstream impacts. The requirement to report isolated sewer overflows is not an attempt by the Region to “regulate” those overflows, nor is it an attempt to assert authority over waters not otherwise covered by the Clean Water Act. Rather, the requirement to report isolated overflows is an appropriate mechanism, grounded in the CSO Policy and the Clean Water Act more generally, to determine whether the permitted combined sewer system is operating in compliance with the permit, including the requirement to maximize storage without increasing upstream flooding into basements and streets, which can negatively impact human health and the environment. San Francisco fails to demonstrate that the Region clearly erred in requiring San Francisco to report isolated sewer overflows. Accordingly, the Board denies review on this issue.

D. The Requirement to Update the Long-Term Control Plan

San Francisco’s final challenge relates again to the CSO Control Policy that is incorporated into the CWA at section 402(q), 33 U.S.C. § 1342. The CSO Control Policy requires municipalities operating combined sewer systems to develop and implement a “Long-Term Control Plan” as part of the NPDES permitting process. CSO Control Policy § II.C, 59 Fed. Reg. at 18,691. When the CSO Control Policy was issued in 1994, San Francisco was already well into constructing its facilities. Resp. to Cmts. at 17. As such, the permitting authorities determined that San Francisco’s “program

qualifies for the CSO Control Policy's classification under Section I.C. as being substantially complete" and was "exempt" from the "planning and construction requirements" pursuant to section I.C of the Policy. 1997 Permit at 6 (Finding No. 11). Although San Francisco's existing plan was deemed to satisfy the requirements of the CSO Control Policy in subsequent permits, in this Permit, San Francisco is required to update its "Long-Term Control Plan" or "LTCP" by implementing specified tasks based on the CSO Control Policy. See Permit § VI.C.5.d, at 21-23 tbl.7.

To comply with the provision, San Francisco must complete a specific list of tasks that is based on the CSO Control Policy and then report to the California RWQCB and the Region as specified. *Id.* The tasks include: (1) submitting a "System Characterization Report" that includes "a comprehensive characterization of the combined sewer system developed through records review, monitoring, modeling, and other means as appropriate"; (2) involving the affected public in the decision-making process; (3) submitting a "Consideration of Sensitive Areas Report" that "evaluates, prioritizes, and proposes control alternatives needed to eliminate, relocate, or reduce the magnitude of or frequency of discharges to sensitive areas";²⁹ (4) submitting 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

²⁹ San Francisco discharges to sensitive areas at six out of its seven discharge points. Permit § VI.C.5.d, at 22 tbl.7.

frequency, volume, and duration of combined sewer discharges and sewer overflows from the combined sewer system”; and (5) developing a “Post-Construction Compliance Monitoring Program” that proposes modifications, as appropriate, to the monitoring plan for the next permit term. *Id.* Each task is then further defined and articulated in the Permit. *See id.* Notably, the tasks are focused on obtaining and providing accurate information to the permitting authorities, as well as to San Francisco itself, on the current system and operation; they are not construction or redesign requirements.

San Francisco objects to the LTCP provision (and the tasks that it requires), arguing that the requirements are “contrary to law,” and “not supported by relevant factual findings.” Pet. at 23. San Francisco also argues that the requirement to update its LTCP does not provide it with fair notice of what is necessary to comply with the provision. *Id.* at 30-31. We address each of these arguments, in turn, below.

1. *The Long-Term Control Plan Provision Is Not Contrary to Law*

San Francisco argues that the requirement to update the LTCP plan is contrary to law because the Region (and the California RWQCB) determined in the 1997 permit that San Francisco was not covered by the initial planning and construction requirements of the CSO Control Policy based on the status of the San Francisco’s facility at the time the Policy was issued.

See 1997 Permit at 6, 8 (Finding Nos. 11 & 15) (relying on CSO Control Policy § I.C.1, 59 Fed. Reg. at 18,690). As a result, San Francisco argues, many of the elements of developing an LTCP required by the CSO Control Policy do not apply to San Francisco's CSS as a matter of law. Pet. at 24.

The Region acknowledges that based on certain provisions in the CSO Control Policy, it previously allowed San Francisco to avoid the initial planning and construction requirements applicable to other CSOs based on the status of San Francisco's system at the time. Resp. Br. at 26; *see* Resp. to Cmts. at 17. The Region disagrees, however, that its determination in 1997 applies to San Francisco's CSS in perpetuity and prevents a permitting authority from requiring an update to a previously completed LTCP. Resp. to Cmts. at 17; *see also* Resp. Br. at 26. According to the Region, an update to the LTCP is necessary to meet San Francisco's obligations under the CWA, including the CSO Control Policy.³⁰ Resp. to Cmts. at 16-17 (citing the CWA, including the CSO Control Policy, as well as 40 C.F.R. § 122.44(d); State Water Board Order No. WQ 79-16; and Office of Water, U.S. EPA, *Combined Sewer*

³⁰ We find no merit to San Francisco's assertion that the Region failed to explain its departure from its prior determinations that San Francisco was excepted from certain requirements under section I.C. of the permit. *See* Pet. at 10-11; Resp. to Cmts. at 16-17. The Region's rationale for requiring an LTCP update, notwithstanding its prior determination, satisfied the Region's obligation under 40 C.F.R. § 124.17(a)(2) to "[b]riefly describe and respond to all significant comments." *See Circle T Feedlot*, 14 E.A.D. at 674-76.

Overflows: Guidance for Long-Term Control Plan (Sept. 1995) (A.R. 95b) (“LTCP Guidance”).

As discussed above, CSOs often cause exceedances of water quality standards during wet weather events.³¹ See CSO Control Policy § I.A, 59 Fed. Reg. at 18,689. Recognizing this, and the water quality problems that ensue, EPA developed—and Congress later incorporated into law—the CSO Control Policy to bring combined sewer systems into compliance with the CWA. *Id.* at 18,688-89; CWA § 402(q), 33 U.S.C. 1342(q); see also Part III.B, above. As such the CWA, via the CSO Policy, requires permitting authorities to include in every NPDES permit all appropriate requirements in section IV.B of the policy, including the requirement to develop and implement an LTCP to ensure that CSSs that overflow as a result of wet weather events include controls that meet the objectives and requirements of the CWA. See CWA §§ 402(a), (q), 33 U.S.C. § 1342(a), (q) (establishing the NPDES permit program and requiring that no permit be issued unless the discharge will meet the requirements of the Clean Water Act, including water quality standards and the

³¹ As described in Part III.B, above, “CSOs consist of mixtures of domestic sewage, industrial and commercial wastewaters, and storm water runoff. CSOs often contain high levels of suspended solids, pathogenic microorganisms, toxic pollutants, floatables, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants.” CSO Control Policy § I.A, 59 Fed. Reg. at 18,689. As such, they not only cause exceedances of water quality standards, but they also “may pose risks to human health, threaten aquatic life and its habitat, and impair the use and enjoyment of the Nation’s waterways.” *Id.*

requirements of CSO Control Policy); CSO Control Policy §§ I.C, II.C, IV.A-B, 59 Fed. Reg. at 18,690, 18,691, 18,695-96; *see also* CWA § 301, 33 U.S.C. § 1311 (prohibiting the discharge of pollutants except in compliance with the CWA); CWA § 303, 33 U.S.C. § 1313 (establishing water quality standards and implementation plans).

As described in Part III.B, above, the CSO Control Policy sets out a phased approach for implementing the LTCP requirement. CSO Control Policy § IV, 59 Fed. Reg at 18,695-96. Under this approach, a “Phase I” permit will require that the permittee “develop and submit” an LTCP and a “Phase II” permit will “insure that the selected CSO controls are implemented, operated and maintained as described in the long-term CSO control plan.” *Id.* § IV.B.1, .2, 59 Fed. Reg. at 18,696; *see also Lowell*, 18 EAD at 169. That said, when it issued the CSO Control Policy in 1994, EPA recognized that “extensive work [had already] been done by many Regions, States, and municipalities to abate CSOs.” CSO Control Policy § I.C, 59 Fed. Reg. at 18,690. As such, the Agency recognized that portions of the Policy may not apply, “as determined by the permitting authority on a case-by-case basis” under specified circumstances.³² *Id.* But even then, the CSO

³² In its brief and at oral argument, San Francisco asserted that it was exempt from certain requirements of the CSO Control Policy pursuant to section I.C.2, rather than I.C.1. Pet. at 24; Oral Arg. Tr. at 14. The first exception applies to permittees that had “completed or substantially completed construction of CSO control facilities” on the date the CSO Control Policy was published. CSO Control Policy § I.C.1, at 18,690. The second

Control Policy specifies that “[i]n the case of any ongoing or substantially completed CSO control effort, the NPDES permit or other enforceable mechanism, as appropriate, should be revised to include all appropriate permit requirements consistent with Section IV.B of [the CSO Control Policy].” *Id.* The CSO Control Policy also indicates that its phased approach should not be construed to mean that each function occurs separately, “[r]ather, the entire process * * * must be coordinated to control CSOs effectively.” *Id.* § I.F, at 18,690.

As the Region explained in its response to San Francisco’s comments on the draft permit, the CSO Control Policy also anticipates changed circumstances and the need to re-evaluate CSO control programs. Resp. to Cmts. at 16-17; Resp. Br. at 26-28. For example, the CSO Control Policy provides that, where monitoring demonstrates water quality standards are not being met, permittees “should be required to submit a revised CSO control plan that, once implemented, will attain [water quality standards].” CSO Control Policy § I.C.1, 59 Fed. Reg. at 18,690. The Policy also states

exception applies to permittees that had “substantially developed or [were] implementing a CSO control program” on the date the CSO Control Policy was published. CSO Control Policy § I.C.2, at 18,690. According to the 1997 Permit, San Francisco was excepted from “initial planning and construction” provisions pursuant to section I.C.1 of the CSO Control Policy. 1997 Permit at 6; *see also* 2003 Permit at 17. The exception would not change based on further progress by a permittee because the exception is based on the date of publication of the CSO Control Policy. Notwithstanding San Francisco’s position with respect to which exception applies, the basis for the exception makes no difference to the outcome of this issue on appeal.

that programs that are excused from planning requirements under section I.C.2, “should be reviewed and modified to be consistent with the sensitive area, financial capability, and post-construction monitoring provisions” of the CSO Control Policy. *Id.* § I.C.2, 59 Fed. Reg. at 18,690. With respect to sensitive areas where elimination or relocation of CSOs is determined to be economically or physically impossible, the Policy provides that permitting authorities “should require for each subsequent permit term a reassessment” of discharges to sensitive areas “based on new or improved techniques” or “changed circumstances that influence economic achievability.” *Id.* § II.C.3.c, 59 Fed. Reg. at 18,692. Additionally, permits issued for CSOs should include permit reopener clauses that allow for permitting authorities to reopen and modify a permit if CSO controls fail to meet water quality standards or to protect designated uses. *Id.* § IV.B.2(g), at 18,696. Nothing in the CSO Policy suggests that long-term control plans (whether developed before the CSO Control Policy was issued or developed consistent with the provisions of the CSO Control Policy) were meant to forever remain static after a facility was beyond “Phase II.” The Agency guidance designed for use by permitting authorities in developing LTCPs also contemplates re-evaluation and updates of LTCPs after Phase II. LTCP Guidance at 4-16 (explaining in a section entitled “Re-Evaluation and Update” that post-construction monitoring is intended to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of the CSO controls; adding that, if the implemented controls do not

achieve these results, a municipality should evaluate the current system's operating practices, strategies, and control measures as necessary).

San Francisco acknowledges its obligation under the CSO Control Policy to “focus on” sensitive areas and to perform post-construction compliance monitoring according to its plan. Reply Br. at 11-12. But San Francisco argues that the permitting authority is required to demonstrate that water quality standards are not being met, or that beneficial uses are not being protected, before the permitting authority can require an LTCP update. Pet. at 29 (citing CSO Control Policy § II.C.3, 59 Fed. Reg. at 18,692). Contrary to San Francisco's argument, the CSO Control Policy and LTCPs are not singularly focused on achieving water quality standards; the CSO Control Policy makes clear that its objective is compliance with the CWA generally and not compliance with water quality standards *exclusively*. See, e.g., CSO Control Policy, 59 Fed. Reg. at 18,688 (explaining that major provisions of CSO Control Policy include “compliance with the CWA, *including* compliance with water quality standards and protection of designated uses” (emphasis added)). Additionally, in the provision requiring LTCPs to include the re-assessment of discharges to sensitive areas, the CSO Control Policy does not require a demonstration of water quality exceedances. See CSO Control Policy § II.C.3.c, 59 Fed. Reg. at 18,692 (providing that “[w]here elimination or relocation [of overflows] has been proven not to be physically possible and economically achievable, permitting authorities should

require for each subsequent permit term, a reassessment based on new or improved techniques to eliminate or relocate or on changed circumstances that influence economic achievability”). In other words, the Permit’s requirement to “propose[] control alternatives needed to eliminate, relocate, or reduce the magnitude or frequency of [overflow] discharges to sensitive areas” is consistent with the CSO Control Policy, irrespective of whether water quality standards or beneficial uses are being met. *See id.*; Permit § VI.C.5.d tbl.7 (No. 3) at 22. Thus, San Francisco’s argument that CSO Control Policy section II.C.3 requires a demonstration of water quality exceedances is mistaken.

San Francisco cites to nothing in the CWA, its regulations, or the policies implementing those requirements that prohibits permitting authorities from requiring a municipality to update its long-term control plan post-Phase II. *See Pet.* at 23-26. Nor does San Francisco cite to anything that supports the notion that a determination that a permittee is excused from having to conduct initial planning or construction requirements under the CSO Control Policy remains in perpetuity. *See id.* Rather, the CSO Control Policy states that “Agency decisions in any particular case will be made by applying the law and regulations on the basis of specific facts when permits are issued.” CSO Control Policy § I.A, 59 Fed. Reg. at 18,689.

Also, as discussed above, the CSO Control Policy anticipates that the satisfaction of certain requirements may be revisited, including that a facility may

need to update its long-term control plan due to changed circumstances. *Id.* §§ II.C, II.C.3, IV.B, 59 Fed. Reg. at 18,690, 18,692, and 18,695-96. Additionally, while a demonstration that water quality standards are not being met (or beneficial uses are not being protected) may be needed for a permit to be reopened mid-term, the reopener provision does not speak to a permitting authority's ability to re-evaluate the need to update an LTCP at the time of permit renewal. *See generally id.* § IV.B.2.g, at 18,696; CSO Guidance for Permit Writers at 4-38 (providing that permit writers should consider waiting for permit term to end, if it is late in the five-year permit cycle, to address changes in the context of normal permit reissuance process). Moreover, the Region's stated objectives—including to ensure that up-to-date information is used to assess whether water quality standards are being met and to ensure that wet weather discharges are not causing unreasonable degradation of the marine environment—is entirely consistent with the aims of the CWA and the CWA's incorporation of the CSO Control Policy. *See generally* CWA § 101(a), 33 U.S.C. § 1251(a) (providing that one objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters”); CSO Control Policy, 59 Fed. Reg. at 18,688 (“The CSO Policy represents a comprehensive national strategy to ensure that municipalities, permitting authorities, water quality standards authorities, and the public engage in a comprehensive and coordinated planning effort to achieve cost effective CSO controls that ultimately meet appropriate health and environmental objectives.”). Permitting

authorities are required to issue permits that comply with the CWA, which includes ensuring that water quality standards will be met. To that end, permitting authorities may impose conditions in a permit for a combined sewer system that will achieve that objective, which under some circumstances reasonably can include updating a long-term control plan, particularly where such plan is decades old. In sum, San Francisco has failed to carry its burden to establish that the Region's decision to include permit terms requiring San Francisco to update its LTCP rests on a clearly erroneous conclusion of law.

2. *The Region's Decision to Require San Francisco to Update its Long-Term Control Plan Is Factually Supported in the Record*

San Francisco next argues that the Region's decision to require an LTCP update is not supported in fact. Pet. at 23, 26. The Region's stated objectives for requiring the LTCP update include: (1) ensuring that water quality objectives during wet weather are met to the greatest extent practicable; (2) ensuring that receiving water designated uses are protected; (3) reducing risks to human health and the environment associated with discharges from combined sewer discharge points; (4) evaluating a range of control alternatives that further reduce discharges to sensitive areas; and (5) providing for adaptive management of the combined sewer system. Memo to File at 1-2; *see also* Fact Sheet at F-30 to F-31; Resp. to Cmts. at 18-19. Ultimately, the Region determined that an LTCP

update is needed to ensure that San Francisco's LTCP is based on the most current information so that the Region can accurately "assess whether water quality standards are being met" and assure that "wet weather discharges are not causing unreasonable degradation of the marine environment." Fact Sheet at F-30 to F-31; *see also* Resp. to Cmts. at 17-19; Memo to File at 1-2, 5-8.

In addition to its objectives, the Region articulated multiple bases for requiring San Francisco to update its LTCP in the fact sheet issued with the draft permit as well as in subsequent documents. *See* Fact Sheet at F-30 to F-31; Memo to File at 5-8; Resp. to Cmts. at 16-17. The Region observed that San Francisco has provided many documents over the years relating to the planning and operations of its sewer system and that identifying the contents of San Francisco's current LTCP—that is, which documents the LTCP comprises and which documents are outdated or no longer applicable—is difficult. Resp. to Cmts. at 17. The Region describes San Francisco's LTCP as a compilation of documents "developed over the course of two decades, dating from 1971" rather than "a single document, as is the case with most combined sewer systems," making it difficult to discern the relationship between the documents. Memo to File at 5. In addition, beginning in 2011 (after the last permit was issued for the Oceanside CSS), San Francisco commenced a twenty-year effort to improve the city's wastewater system; the program (discussed earlier and referred to as the SSIP) identifies information related to the

existing system and potential technology and water-quality based requirements that are intended to shape the sewer system (including long-term capital plans and projects to provide cost-effective controls that affect system performance and protect water quality). *Id.* (citing the SSIP and the studies conducted as part of that program). In support of the SSIP, San Francisco also issued a technical memorandum in 2015 identifying “collection system improvement opportunities.” See S.F. Pub. Utils. Comm’n, *Westside Drainage Basin Urban Watershed Opportunities Technical Memorandum (Final Draft)*, at xi (Feb. 2015) (A.R. 69) (“2015 Westside Drainage Memorandum”); see also Memo to File at 10-11. Such information is clearly relevant to San Francisco’s LTCP. For example, its plan to control CSOs, as well as the Region’s determination as to whether San Francisco’s long-term plans will ensure compliance with the CWA, including the CSO Control Policy, are significant.

San Francisco points to the San Francisco Wastewater Long Term Control Plan Synthesis (“Synthesis”) which (as discussed above in Part IV) it submitted to the California RWQCB pursuant to a 2013 permit proceeding for a separate facility, as sufficient to summarize the various documents that constitute San Francisco’s historical planning process and LTCP. Pet. at 4 (citing Synthesis). According to the Region, however, this document does not adequately solve the problem as it incorporates earlier documents from the 1970s and 1980s (the most recent document in the Synthesis is a 1990 revision of a 1988 document). Resp.

Br. at 29-30. Among other shortcomings, the Synthesis does not include the studies, findings, or plans associated with the SSIP.³³ Thus, as the Region concluded, the Synthesis does not provide a basis for the Region to analyze San Francisco's current long-term control plan for wastewater and to assess whether that plan is adequate to ensure that San Francisco's CSOs are meeting water quality standards, not causing unreasonable degradation to the marine environment, and achieving other objectives of the CSO Control Policy.³⁴

³³ Notwithstanding the relevance to San Francisco's LTCP, San Francisco maintains that the SSIP is not properly part of its LTCP because it did not exist at the time the LTCP was implemented. *See* S.F. Resp. to RWQCB Cmts. on Synthesis, attach. cmt. 1; Oral Arg. Tr. at 26. San Francisco's position rests on its erroneous assumption that the LTCP remains static unless and until it is demonstrated that water quality standards are being exceeded.

³⁴ In its reply brief, San Francisco argues that the Region erroneously states that San Francisco has not addressed deficiencies that the California RWQCB identified in the Synthesis. Reply Br. at 12, n.6 (citing Resp. Br. at 30 n.16) (indicating that it had responded to the California RWQCB's comments on the Synthesis). San Francisco's response to comments on the Synthesis, however, does not establish that either the Region or the California RWQCB determined that the Synthesis is adequate for purposes of this Permit. It is the permitting authorities that must be satisfied that the LTCP is sufficient, and San Francisco's view that the plan is sufficient does not necessarily make it so. In any event, San Francisco's response to the California RWQCB does not appear to address the issues with the Synthesis identified by the Region above. *See* S.F. Resp. to RWQCB Cmts. on Synthesis, attach. cmt. 1 (stating that the compilation of documents in the Synthesis constitutes the LTCP as constructed through the 1990s and stating San Francisco Public Utilities Commission's conclusion that documents reflecting current conditions and current operating

See generally CSO Control Policy § II.C, 59 Fed. Reg. at 18,691 (describing requirements for long-term control plans); *see also* Resp. Br. at 30 n.16 (noting that the California RWQCB also found the Synthesis to be inadequate, in part because it did not reflect current circumstances when it was submitted pursuant to the 2013 Bayside NPDES Permit); Fact Sheet at F-30 to F-31.

The Region also noted changed circumstances as a basis for the Permit's LTCP update requirement. The Region explained that the combined sewer system, the sewershed, and San Francisco's management approach have changed since construction was completed in 1997, and additional changes are underway and planned for the near future. Resp. to Cmts. at 17. For example, the facility discharges from seven CSD Outfalls rather than the eight originally planned. Resp. to Cmts. at 17 n.3; *see also* Memo to File at 6, n.9. Many of the planning documents developed since the issuance of the 2009 Permit—which contain information related to the programs and plans intended to shape the sewer system, including cost-effective controls that affect system performance and water quality protection—were developed by different departments within the San Francisco Public Utilities Commission and were not submitted to EPA as part of the LTCP. Memo to File at 5. These changes further complicate the fact that the Synthesis provided by San Francisco is an amalgam of historic LTCP documents, the most recent of which is a 1990 revision of a 1988 document,

and monitoring of the existing system are not appropriately part of its LTCP).

and therefore predates now-completed and ongoing changes to the system, the sewershed, and the management approach. The Region's goal is that an updated LTCP will coordinate and integrate the ongoing planning efforts and take into account changes that have occurred "since the original LTCP was first developed in the 1970's and implemented in 1997."³⁵ *Id.* That goal is consistent with the strategy of the CSO Control Policy to require permittees to "accurately characterize" sewer systems and to submit "appropriate documentation." CSO Control Policy § II, 59 Fed. Reg. at 18,691.

Moreover, updating an LTCP is not unprecedented. As the Region noted, a number of other cities have updated their LTCPs for reasons that include the "need to achieve specific water quality standards, update control commitments, update system requirements based on capital improvements, includ[ing] additional green infrastructure controls, minimize impacts associated with combined sewer discharges, and clarify technology-based and water-quality based permit requirements." Memo to File at 13-14 (providing links to information on updated LTCPs for thirteen cities between the years of 2005-2018); *see also* Resp.

³⁵ When asked at oral argument how San Francisco could determine the source, cause, or volume of an isolated sewer overflow, Counsel for San Francisco explained that it would rely on its characterization and modeling of the system. Oral Arg. Tr. at 38-40. That response underscores the Region's need to have an accurate and current characterization of the system.

to Cmts. at 17 (noting that EPA has required LTCP updates for other combined sewer systems).

San Francisco maintains that the Region failed to establish that beneficial uses are not currently being protected. Pet. at 26; *see* Reply Br. at 12. The assumption underlying San Francisco's argument is that a permitting authority can require a permittee to update its LTCP only if it is shown that beneficial uses of the receiving water are not being adequately protected. *See* Pet. at 26; *see* Reply Br. at 12. As discussed in Part V.D.1, above, however, San Francisco points to nothing in the CWA or its implementing regulations that requires such a demonstration prior to requiring an update of the LTCP in a permit.

San Francisco also argues that it "clearly identified the correct legal framework" for updating the LTCP in its comments on the draft permit. Pet. at 29 (citing San Francisco Comments, attach. B at 10). The "legal framework" to which San Francisco refers is the subsection of the CSO Control Policy that addresses the objectives for permittees in considering sensitive areas in the development and review of long-term CSO control plans. *Id.*; San Francisco Comments, attach. B at 10 (citing CSO Control Policy § II.C.3). The provision of the subsection cited that addresses reconsideration of sensitive areas describes how permitting authorities should require permittees to review and reassess discharges to sensitive areas in subsequent permit terms, considering new or improved techniques to eliminate or relocate discharges to sensitive areas, as well as changed circumstances that influence

economic achievability. CSO Control Policy II.C.3.c, 59 Fed. Reg. at 18,692. The one-sentence provision on reassessing discharges to sensitive areas does not, however, set forth a legal framework for weighing whether and how the permitting agency should factually support the need to review and revise an LTCP that is decades old and not readily ascertainable from existing documents for a combined sewer system and sewer shed that has undergone many changes since the LTCP was formulated, with additional changes underway and planned for the near future.

With respect to the specific terms of the LTCP update requirement, the Region relied on various elements of the CSO Control Policy section pertaining to the LTCP requirements for Phase II permits. *Compare* Fact Sheet at F-31 *with* CSO Control Policy §§ II.C., IV.B, 59 Fed. Reg. at 18,691-94, 18,695-96. Those elements are:

- “[N]arrative requirements to ensure that selected controls are implemented, operated, and maintained as described in the * * * LTCP” (*see* CSO Control Policy § IV.B.2.b);
- [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” (*see id.* § IV.B.2.d);
- “[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” (*see id.* § IV.B.2.e); and

- “Requirements for maximizing the treatment of wet weather flows at the treatment plant, as appropriate” (*see id.* § IV.B.2.f).

Fact Sheet at F-31. The Region points to the above elements of the CSO Control Policy in support of requiring San Francisco to include these elements in its updated LTCP. *Id.* at 30-31.³⁶

The Region also points to State Water Board Order No. WQ 79-16, which, among other things, requires San Francisco to design and construct and operate facilities to the greatest extent practical to conform to the standards set forth in chapters II and III of the 1978 Ocean Plan. *Id.* Ultimately, the Region determined that an updated LTCP that takes into account

³⁶ San Francisco asserts that the Region failed to respond to its request to identify the legal authority for the tasks in table 7 of the Permit. Pet. at 10. In its response to comments document, however, the Region stated that it relied on the CSO Control Policy’s Phase II permit requirements for implementation of a long-term control plan, as well LTCP Guidance. Resp. to Cmts. at 16-17. Additionally, the requirements in table 7 of the Permit track the requirements in both the CSO Control Policy and the LTCP Guidance. Compare Permit at 21-23 tbl.7, with CSO Control Policy § II.C, 18,691-94; *see also generally* LTCP Guidance. The Region’s response to San Francisco on the rationale for the tasks described in table 7 satisfies the Region’s obligations under 40 C.F.R. § 124.17(a)(2). *See Circle T Feedlot*, 14 E.A.D. at 674-76 (discussing the permitting authority’s obligation to respond to comments under 40 C.F.R. § 124.17(a)(2)).

all the changes to the combined sewer system, the sewer shed, and the management approach is necessary. Fact Sheet at F31. Further, the Region determined that compiling the LTCP in one document that contains the basic elements set forth in the CSO Control Policy, is necessary so that the Region can ensure that San Francisco's LTCP is "based on the most current information" and so that the Region can, among other things, properly "assess whether water quality standards are being met" and whether "wet weather discharges are not causing unreasonable degradation of the marine environment." *Id.* (citing 40 C.F.R. § 125.122); *see also* Memo to File at 5-8.

San Francisco suggests that the requirement to update the LTCP mandates an unduly onerous "re-examination" of its facilities that will take years to complete. Pet. at 23. The tasks required in table 7 of the Permit, as described above, are clearly laid out.³⁷ Permit § VI.C.5.d, at 21-23. The task list also provides a timeline for completing these tasks that allows up to forty-eight months for many of the tasks. *Id.* Recognizing that San Francisco's CSO facilities are already

³⁷ In its reply brief, San Francisco also argues that the Region "mischaracterizes the nature of the obligations" in section VI.C.5.d of the Permit (requiring the LTCP update and describing what that entails). Reply Br. at 12. As San Francisco notes, however, the Permit terms speak for themselves. *Id.* As we state above, the tasks are clearly set forth in the Permit with timelines for completion and permission to use previously completed studies as appropriate. San Francisco has not established any basis for concluding the Region mischaracterized the tasks outlined in the Permit or that the tasks will be unduly onerous or take more time to complete than set forth in the Permit.

substantially completed, the Region also allows San Francisco to “use previously completed studies to the extent that they accurately provide the required information.” *Id.* § VI.C.5.d, at 21; *see also* Resp. to Cmts. at 17.³⁸ San Francisco does not identify any specific enumerated task that it contends is unreasonable; nor does San Francisco carry its burden of demonstrating that the Region clearly erred in requiring in the Permit that these tasks be completed.

3. *The Permit Requirement to Update its Long-Term Control Plan Provides San Francisco With Fair Notice of What is Required*

Finally, San Francisco maintains that the LTCP update provision fails to provide San Francisco with “fair notice” of what San Francisco is required to do to comply. Pet. at 30-31. San Francisco suggests that because the LTCP Update provision does not provide any guidance on “*why* reduction is necessary or * * * *how much* reduction is necessary to protect beneficial uses,” and the Region has for decades concluded that the

³⁸ Although San Francisco asserts that the Region’s rationale in its response to comments was “post hoc,” Pet. at 26, the response to comments document is an appropriate vehicle for the Region to provide its rationale for a final permitting decision. *See City of Taunton Dept. of Pub. Works*, 17 E.A.D. 105, 125, 186 (EAB 2016), *aff’d*, 895 F.3d 120 (1st Cir 2018), *cert. denied* 139 S. Ct. 1240 (Feb. 19, 2019). Indeed, that is precisely the purpose of the response to comments document. *See id.*; 40 C.F.R. § 124.17(a) (requiring the permitting authority to provide its rationale for any changes made from the draft and to briefly respond to all significant comments on the draft permit).

limits for prior discharges were protective of beneficial uses, San Francisco cannot know what is required of its facilities. *Id.* By focusing on what specific levels of pollutants are required to protect beneficial uses, San Francisco fails to engage the Region’s rationale for the provision—the LTCP needs to be updated so that the Region can adequately assess the CSS to determine whether beneficial uses are being adequately protected. Resp. Br. at 28. Instead, San Francisco is essentially arguing that the Region must rely on inadequate characterization, outdated management approaches, and old inadequate data to prove that beneficial uses are not being protected before it can require an update to the LTCP.

As stated in Part V.D.2, above, the Permit clearly describes, defines, and articulates the tasks that San Francisco is required to complete. Permit § VI.C.5.d tbl.7, at 21-23. While San Francisco describes the tasks as vague references to beneficial use requirements, they are, in fact, detailed and specific, while still allowing San Francisco the opportunity to propose how best to address any issues it identifies. *See generally id.* (setting forth the tasks required to update the LTCP, which include “identify[ing]” alternatives, “evaluat[ing]” feasibility and costs, and “consider[ing]” costs relative to benefits for water quality and other public benefits).³⁹ Pet. at 30-31. Current information on the system

³⁹ San Francisco argues that the Region failed to respond to its comment with respect to fair notice. Pet. at 11. In its comments on the draft permit, San Francisco asserted that the terms in table 7 of the Permit were “vague” and failed to provide “fair notice”

will allow the permitting authorities to better assess whether water quality standards are being met, whether wet weather discharges are causing unreasonable degradation to the environment, and whether discharges to sensitive areas are being reduced to the maximum extent practicable. Fact Sheet at F-31; Resp. to Cmts. at 16-17, 18-19, 20; Memo to File at 1-2, 5-8.

In sum, San Francisco has failed to carry its burden to show that the Region clearly erred in requiring San Francisco to update its LTCP.

VI. CONCLUSION

For the reasons stated above, the Petition for Review is denied.

So ordered.

of what is “specifically required.” Resp. to Cmts. at 16. We find the argument that the Region failed to respond to be without merit. *See* Resp. to Cmts. at 16-21 (responding to San Francisco’s comments regarding the LTCP update requirement); *see also* *Circle T Feedlot*, 14 E.A.D. at 674-76 (discussing the permitting authority’s obligation to respond to comments under 40 C.F.R. § 124.17(a)(2)).

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

CITY AND COUNTY OF SAN FRANCISCO, Petitioner, v. U.S. ENVIRONMENTAL PROTECTION AGENCY, Respondent.
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No. 21-70282

Environmental
Protection Agency

ORDER

(Filed Oct. 10, 2023)

Before: W. FLETCHER, GOULD, and COLLINS, Cir-
cuit Judges.

Petitioner filed a petition for rehearing en banc on September 14, 2023 (Dkt. Entry 68). Judge Gould has voted to deny the petition for rehearing en banc, and Judge W. Fletcher so recommends. Judge Collins has voted to grant the petition for rehearing en banc.

The full court has been advised of the petition for rehearing en banc and no judge of the court has requested a vote on whether to rehear the matter en banc. Fed. R. App. P. 35.

The petition for rehearing en banc is **DENIED**.

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40 C.F.R. § 122.44

§ 122.44 Establishing limitations, standards,
and other permit conditions (applicable to
State NPDES programs, see § 123.25).

In addition to the conditions established under § 122.43(a), each NPDES permit shall include conditions meeting the following requirements when applicable.

* * *

(d) Water quality standards and State requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318, and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.

(i) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.

(ii) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall

use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.

(iii) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

(iv) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.

(v) Except as provided in this subparagraph, when the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, toxicity testing data, or other information, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative criterion within an applicable State water quality standard, the permit must contain effluent limits for whole effluent toxicity. Limits on whole effluent toxicity are not

necessary where the permitting authority demonstrates in the fact sheet or statement of basis of the NPDES permit, using the procedures in paragraph (d)(1)(ii) of this section, that chemical-specific limits for the effluent are sufficient to attain and maintain applicable numeric and narrative State water quality standards.

(vi) Where a State has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits using one or more of the following options:

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be derived using a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents; or

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(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information; or

(C) Establish effluent limitations on an indicator parameter for the pollutant of concern, provided:

(1) The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation;

(2) The fact sheet required by § 124.56 sets forth the basis for the limit, including a finding that compliance with the effluent limit on the indicator parameter will result in controls on the pollutant of concern which are sufficient to attain and maintain applicable water quality standards;

(3) The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameter continues to attain and maintain applicable water quality standards; and

(4) The permit contains a reopener clause allowing the permitting authority to modify or revoke and reissue the permit if the limits on the indicator parameter no longer attain and maintain applicable water quality standards.

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(vii) When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that:

(A) The level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards; and

(B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.

* * *

(k) Best management practices (BMPs) to control or abate the discharge of pollutants when:

(1) Authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities;

(2) Authorized under section 402(p) of the CWA for the control of storm water discharges;

(3) Numeric effluent limitations are infeasible; or

(4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

* * * *

**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

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

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

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."

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

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

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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

submitted as an attachment to San Francisco’s comments on this tentative order (pages 1040, 1044, and 1045).

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 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 CWAs 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

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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 Bay-side 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 storm-water 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 longterm 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

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

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 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).

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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 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.

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.*

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

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.

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

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 settable material, toxics in water or sediment, substances that significantly decrease natural light, and materials that result in esthetically undesirable discoloration of the ocean surface.

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.

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),

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- 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

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.

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.*

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 re-issuance.

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-1	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]	3/Year ^[4] 1/Event
pH	standard units	Grab	3/Year ^[4]

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Ammonia, total	mg/L as N	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Arsenic	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Cadmium	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Copper	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Lead	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Nickel	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Selenium	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Silver	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Zinc	µg/L	C- <u>X</u> 24 ^[2]	<u>1/Event</u> <u>3/Year</u> ^[4]
Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C- <u>X</u> 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

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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-1
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;

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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

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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.
