

Attachment 10

**EPA Region 9 and San Francisco Bay Regional Water Quality Control Board - Response to
Written Comments and Attachment 1**

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

RESPONSE TO WRITTEN COMMENTS

on the Tentative Order for

City and County of San Francisco

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

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

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

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

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

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

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

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

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

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

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

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

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

BACHELOR, DUNSETH, AND HOOPER

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BACHELOR

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

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

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

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

GELINI

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

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

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

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

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

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

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

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

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

ART

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

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

TILTON

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

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

CITY AND COUNTY OF SAN FRANCISCO

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

A. Summary Table

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

B. Combined Sewer Overflow (CSO) Control Policy

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C. Sewer Overflows from Combined Sewer System

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

D. Combined Sewer Discharge Monitoring

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

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

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

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

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

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

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

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

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

We revised Attachment E Table E-1 as follows:

Table E-1. Monitoring Locations

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

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

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

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

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

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

Abbreviations:

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

Sample Types and Frequencies:

~~C-24~~ = 24 hour composite

~~C-X~~ = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until a sufficient sample volume for the required analysis is obtained.

Grab = grab sample

1/Event = once per combined sewer discharge event

1/Year = once per year

~~3/Year~~ = three per year

Footnotes:

^[1] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, ~~and~~ chronic toxicity, and volatile organic compounds. The Discharger may monitor for total chromium in lieu of hexavalent chromium.

^[2] If the discharge lasts less than 24 hours, the Discharger shall sample for as long as possible at equal ~~one hour~~ intervals and ~~record report~~ the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample.

^[3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a composite sample.

^[4] ~~Sampling is only required at the monitoring locations indicated below when there is a combined sewer discharge event at the discharge points indicated below:~~

<u>Discharge Point</u>	<u>Monitoring Location</u>
CSD 001	EFF CSD 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; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping;
- c.** Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses;
- d.** Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered;
- e.** Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered;
- f.** Geothermal energy production: augmentation of geothermal fields;
- g.** Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments;
- h.** Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use;
- i.** Seawater intrusion barrier: groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface;
- j.** Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Health and Safety Code section 116275, or into a constructed system conveying water to such a reservoir (Wat. Code § 13561);
- k.** Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that delivers raw water to a drinking water treatment plant that provides water to a public water system as defined in Health and Safety Code section 116275 (Wat. Code § 13561); and
- l.** Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

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

Annual Recycled Water Reports

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

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

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

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

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

California Ocean Plan. The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and has amended it several times, including in 1978 and most recently in ~~2018~~ 2015. The most recent changes became effective February 4, 2019 ~~January 28, 2016~~. The Ocean Plan establishes water quality objectives and a program of implementation to protect beneficial uses of the Pacific Ocean within the territorial waters of the State.

ATTACHMENT 1
TABULAR COMMENTS AND RESPONSES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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			<p>system are not relevant to, or mentioned, in the CSO Control Policy and implementing guidance. Sewer overflows do not reach surface waters, are caused by localized constraints and have no relationship to CSDs and the system’s ability to maximize storage and treatment.</p> <p>Please replace the requirement to identify water quality impacts of CSDs with a more holistic evaluation of information available on the relationship between CSDs and receiving water quality. The current provision’s focus on water quality impacts seems unnecessarily focused on analyses of the pollutant concentrations in CSDs, whereas the SFPUC has other types of data and information (e.g., receiving water monitoring and modeling) relevant to the relationship between CSDs and receiving water conditions.</p> <p>The SFPUC also requests an extension of the deadline to allow time to incorporate the Bayside drainage into these analyses. While the Bayside and Westside are hydraulically distinct, improvements must be identified and prioritized on a citywide basis. Extension of the deadlines will enable the SFPUC to undertake citywide analyses to better inform decision making.</p>	<p>characteristics of actual combined sewer discharges and sewer overflows from the combined sewer system, and their locations relative to sensitive areas, for at least the last 10 years;</p> <p>d. Describe any temporal or spatial trends of sewer overflows from the combined sewer system.</p> <p>e.d. Identify A summary of available information on the relationship between CSDs and the receiving water quality the impacts that result from combined sewer discharges (at a minimum, compare wet weather average and maximum discharge characteristics and receiving water monitoring data with Ocean Plan Table 1 water quality objectives); and</p> <p>f.e Evaluate combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency), including a description of any method used.</p> <p>Within 482 months of this Order’s effective date.</p>	<p>considering the impacts of climate change and sea level rise;</p> <p>b. Description of be each model used, including a discussion of model calibration and validation;</p> <p>c. Identify the Location, frequency, and characteristics of actual combined sewer discharges and sewer overflows from the combined sewer system, and their locations relative to sensitive areas, for at least the last 10 years;</p> <p>d. Describe Description of any temporal or spatial trends of sewer overflows from the combined sewer system;</p> <p>e. Identify the water quality impacts that result from Based on available information, evaluation of how combined sewer discharges affect receiving water quality. At a minimum, the Discharger shall compare wet weather average and maximum discharge characteristics and receiving water monitoring data with Ocean Plan Table 1 water quality objectives); and</p> <p>f. Evaluate Evaluation of combined sewer discharge control efficacy (e.g., using TSS as a proxy for pollutant removal efficiency), including a description of any method used.</p> <p>Regarding task “a” (i.e., description of combined sewer system and performance during various precipitation events), we acknowledge the utility of examining a typical year, but more is needed. <i>Combined Sewer Overflow (CSO) Control Policy</i> section II.C.1 states, “The permittee should adequately characterize through monitoring, modeling, and other means as appropriate, for a range of storm events, the response of</p>

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

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

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

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

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

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

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

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

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

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

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

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				<table border="1"> <tr> <td data-bbox="989 196 1136 480">Offshore Receiving Water</td> <td data-bbox="1136 196 1276 480">Station 4</td> <td data-bbox="1276 196 1488 480">Offshore monitoring program station location. <i>Longitude - 122.59001</i> <i>59500°</i>, <i>Latitude 37.71167°</i></td> </tr> <tr> <td data-bbox="989 480 1136 552">⋮</td> <td data-bbox="1136 480 1276 552">⋮</td> <td data-bbox="1276 480 1488 552">⋮</td> </tr> </table>	Offshore Receiving Water	Station 4	Offshore monitoring program station location. <i>Longitude - 122.59001</i> <i>59500°</i> , <i>Latitude 37.71167°</i>	⋮	⋮	⋮	
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⋮	⋮	⋮									
A.33	E-6	Table E-2, CBOD ₅ Monitoring	<p>When testing CBOD₅, samples are diluted at different dilutions based on a predicted concentration range. Despite preparing samples at various dilutions, this testing method has the potential to result in invalid test results if the actual concentration is not within the predicted concentration range. Predicting a concentration range is particularly difficult during wet weather because it is difficult to estimate how much stormwater is contributing to the influent, and stormwater typically has much lower CBOD₅ concentrations than does wastewater. SFPUC requests clarification from the Regional Board that it does not constitute a violation if the influent is sampled at the frequency specified and tested for CBOD, but the test results are deemed invalid or inconclusive due to CBOD₅ concentrations out of the expected range and SFPUC is not able to resample within the same week. SFPUC would report such results as invalid in the corresponding self-monitoring report cover letter.</p>	N/A	<p>We did not revise the tentative order. Valid samples are required to comply with monitoring requirements. Federal regulations state, “Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.” (40 C.F.R. § 122.41(j)(1).)</p>						
A.34	E-6 – E-7	IV.A.1 and IV.A.2, Table E-3 and Table E-4	<p>SFPUC requests the addition of a section and table for both dry and wet weather plant effluent monitoring for flow, CBOD₅, TSS and pH to clarify minimum sampling</p>	<p><u>1. Dry and Wet Weather. The Discharger shall monitor the plant effluent during dry and wet weather at Monitoring Locations EFF-001A and EFF-001B as follows:</u></p>	<p>We revised the tentative order as proposed, with the following two exceptions. The text of the new section IV.A.1 is as follows:</p>						

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			<p>frequency for these parameters. Dry weather monitoring is currently separate from wet weather monitoring. It is SFPUC's interpretation that, even if there is a wet weather event in any given week, dry weather samples at Monitoring Location EFF-001A must be taken at the required minimum sampling frequency. However, SFPUC may not be able to comply with these frequencies at times because the requirements are weather-dependent. For instance, if a wet weather event lasts three days, there would not be enough days in the week to collect the minimum five samples required for TSS at Monitoring Location EFF-001A.</p> <p>SFPUC Laboratory staff currently schedule lab analyses for weekly monitoring parameters such as TSS, pH, and CBOD₅ randomly to better characterize the effluent. During the rainy season, there may be weeks in which TSS monitoring is scheduled for Monday-Thursday and Saturday, but if Friday and Saturday are wet weather days, TSS would have been monitored only four times instead of the required five times per week.</p> <p>Accordingly, SFPUC proposes the inclusion of a footnote similar to Table E-2, footnote [2], to clarify that the minimum sampling frequency is satisfied regardless of whether the results correspond to EFF-001A or EFF-001B. In addition, SFPUC requests the addition of a footnote to clarify that monitoring requirements in the new table may be used to satisfy similar EFF-001B monitoring requirements in Table E-4 of the Tentative Order.</p> <p>The suggested revisions shown are also consistent with Table E-4 of the Tentative</p>	<p>Table E-3. Plant Effluent Monitoring</p> <table border="1" data-bbox="989 233 1482 654"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>CBOD₅^[2]</td> <td>mg/L</td> <td>C-24</td> <td>1/Week</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>5/Week</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Continuous or Grab</td> <td>1/Week</td> </tr> </tbody> </table> <p>Abbreviations: MG = million gallons MGD = million gallons per day mg/L = milligrams per liter</p> <p>Sample Types and Frequencies: Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Week = once per week 5/Week = five times per week</p> <p>Footnotes: ^[1] The following information shall be reported in monthly self-monitoring reports: <ul style="list-style-type: none"> Daily average flow (MGD) Total monthly flow volume (MG) ^[2] The Discharger may monitor Chemical Oxygen Demand at Monitoring Location EFF-001B in lieu of CBOD₅ during wet weather. ^[3] The minimum sampling frequency is the total number of effluent samples to be collected during the specified sampling period, including samples collected during dry and wet weather at Monitoring Locations EFF-001A and EFF-001B.</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow ^[1]	MG/ MGD	Continuous	Continuous/ D	CBOD ₅ ^[2]	mg/L	C-24	1/Week	TSS	mg/L	C-24	5/Week	pH	standard units	Continuous or Grab	1/Week	<p>Dry and Wet Weather. The Discharger shall monitor plant effluent at Monitoring Location EFF-001A during dry weather and at Monitoring Location EFF-001B during wet weather as follows:</p> <p>We revised Table E-4 (now Table E-5) as follows:</p> <p>Table E-45. Wet Weather Plant Effluent Monitoring</p> <table border="1" data-bbox="1503 496 2001 1401"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Flow^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/D</td> </tr> <tr> <td>Chemical Oxygen Demand</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Grab</td> <td>1/Month</td> </tr> <tr> <td>Duration of Blending^[1,2]</td> <td>minutes</td> <td>Calculated</td> <td>Continuous/D</td> </tr> <tr> <td>Volume of Blended Wastewater Discharged^[1,2]</td> <td>MG</td> <td>Calculated</td> <td>Continuous/D</td> </tr> <tr> <td>Ocean Plan Table 1 Pollutants^[2,3]</td> <td>µg/L</td> <td>C-24^[3,4]</td> <td>1/Year</td> </tr> </tbody> </table> <p>Abbreviations: MG = million gallons</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Flow ^[1]	MG/ MGD	Continuous	Continuous/D	Chemical Oxygen Demand	mg/L	C-24	1/Month	TSS	mg/L	C-24	1/Month	pH	standard units	Grab	1/Month	Duration of Blending ^[1,2]	minutes	Calculated	Continuous/D	Volume of Blended Wastewater Discharged ^[1,2]	MG	Calculated	Continuous/D	Ocean Plan Table 1 Pollutants ^[2,3]	µg/L	C-24 ^[3,4]	1/Year
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			<p>Order in allowing use of COD in lieu of CBOD during wet weather.</p>	<p>12. Dry Weather. During dry weather, the Discharger shall monitor plant effluent at Monitoring Location EFF-001A as follows:</p> <p>Table E-34. Dry Weather Plant Effluent Monitoring</p> <table border="1" data-bbox="982 402 1488 1094"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow^[4]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>CBOD₅</td> <td>mg/L</td> <td>C-24</td> <td>1/Week</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24</td> <td>5/Week</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Continuous or Grab</td> <td>1/Week</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Remaining Ocean Plan Table 1 Pollutants^[2]</td> <td>μg/L</td> <td>C-24^[32]</td> <td>1/Year</td> </tr> </tbody> </table> <p>Abbreviations: MG = million gallons MGD = million gallons per day ... Sample Types and Frequencies: Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Week = once per week 5/Week = five times per week</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow ^[4]	MG/ MGD	Continuous	Continuous/ D	CBOD ₅	mg/L	C-24	1/Week	TSS	mg/L	C-24	5/Week	pH	standard units	Continuous or Grab	1/Week	⋮				Remaining Ocean Plan Table 1 Pollutants ^[2]	μg/L	C-24 ^[32]	1/Year	<p>MGD = million gallons per day mg/L = milligrams per liter μg/L = micrograms per liter Sample Types and Frequencies: Continuous = measured continuously Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Month = once per month 1/Year = once per year</p> <p>Footnotes: ^[4] The following information shall be reported in monthly self-monitoring reports: • Daily average flow (MGD) • Total monthly flow volume (MG)</p> <p>^[21] Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. For each blending event day on which blending occurs, the Discharger shall report the duration of blending and the volume of primary-only-treated wastewater blended.</p> <p>^[32] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity.</p> <p>^[43] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.</p> <p>Accordingly, we renumbered the subsequent tables in Attachment E and updated references to those tables throughout the tentative order.</p>
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				<p>...</p> <p><u>Footnotes:</u></p> <p>^[4] The following information shall be reported in monthly self-monitoring reports:</p> <ul style="list-style-type: none"> • Daily average flow (MGD) • Total monthly flow volume (MG) <p>^[2] The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity.</p> <p>^[3] For mercury and other parameters with analytical methods that require grab sampling, the Discharger may collect a grab sample instead of a 24-hour composite sample.</p> <p>23. Wet Weather. During wet weather, the Discharger shall monitor plant effluent at Monitoring Location EFF-001B as follows:</p> <p>Table E-45. Wet Weather Plant Effluent Monitoring</p> <table border="1" data-bbox="982 846 1491 1386"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency ^[3]</th> </tr> </thead> <tbody> <tr> <td>Flow ^[4]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous/ D</td> </tr> <tr> <td>Chemical Oxygen Demand ^[1]</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>TSS ^[1]</td> <td>mg/L</td> <td>C-24</td> <td>1/Month</td> </tr> <tr> <td>pH ^[1]</td> <td>standard units</td> <td>Grab</td> <td>1/Month</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><u>Abbreviations:</u> MG = million gallons</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency ^[3]	Flow ^[4]	MG/ MGD	Continuous	Continuous/ D	Chemical Oxygen Demand ^[1]	mg/L	C-24	1/Month	TSS ^[1]	mg/L	C-24	1/Month	pH ^[1]	standard units	Grab	1/Month	⋮				
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pH ^[1]	standard units	Grab	1/Month																										
⋮																													

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				<p>MGD = million gallons per day mg/L = milligrams per liter µg/L = micrograms per liter</p> <p><u>Sample Types and Frequencies:</u></p> <p><u>Continuous = measured continuously</u> Continuous/D = measured continuously, and recorded and reported daily C-24 = 24-hour composite Grab = grab sample 1/Month = once per month 1/Year = once per year</p> <p><u>Footnotes:</u></p> <p>^[1] <u>The following information shall be reported in monthly self-monitoring reports:</u></p> <ul style="list-style-type: none"> • <u>Daily average flow (MGD)</u> • <u>Total monthly flow volume (MG)</u> <p><u>Effluent monitoring conducted in accordance with Table E-3 may be used to satisfy Table E-5 wet weather effluent monitoring requirements.</u></p> <p>...</p>																					
A.35	E-7 – E-8	Table E-4, Footnote 2	<p>SFPUC requests a minor revision to the reporting protocol for the volume and duration of primary-treated wastewater during wet weather blending events. The requested change is to report volume and duration of blending once per <u>day</u> rather than once per <u>event</u>. For small wet weather events, blending events can occur multiple times on a single day, since rain events may produce multiple flow peaks. For larger wet weather events, blending events have the potential to span multiple days. Binning the volumes and durations of these events into one value per day will reduce the potential for confusion in the reporting database.</p>	<p>Table E-4. Wet Weather Plant Effluent Monitoring</p> <table border="1" data-bbox="982 930 1495 1458"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Flow ^[1]</td> <td>MG/ MGD</td> <td>Continuous</td> <td>Continuous /D</td> </tr> <tr> <td>⋮</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Duration of Blending ^[2]</td> <td>minutes</td> <td>Calculated</td> <td>Continuous /D</td> </tr> <tr> <td>Volume of Blended Wastewater Discharged ^[2]</td> <td>MG</td> <td>Calculated</td> <td>Continuous /D</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Flow ^[1]	MG/ MGD	Continuous	Continuous /D	⋮				Duration of Blending ^[2]	minutes	Calculated	Continuous /D	Volume of Blended Wastewater Discharged ^[2]	MG	Calculated	Continuous /D	<p>As shown in our response to San Francisco Comment A.34, we revised the tentative order as proposed (Table E-4 is now Table E-5). The change clarifies that San Francisco must report for each day the duration of blending and the volume of primary-only-treated wastewater blended.</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																						
Flow ^[1]	MG/ MGD	Continuous	Continuous /D																						
⋮																									
Duration of Blending ^[2]	minutes	Calculated	Continuous /D																						
Volume of Blended Wastewater Discharged ^[2]	MG	Calculated	Continuous /D																						

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				<p>⋮</p> <p>...</p> <p><u>Footnotes:</u></p> <p>...</p> <p>[2] Blended wastewater is biologically-treated wastewater blended with wastewater diverted around biological treatment units at the Oceanside Water Pollution Control Plant. For each <u>day on which</u> blending <u>occurs event</u>, the Discharger shall report the duration of blending and the volume of primary-only-treated wastewater blended.</p> <p>...</p>													
A.36	E-8 – E-10	IV.B.1. and IV.B.2.	Regarding discharge monitoring for the Westside Transport/Storage Structures, SFPUC requests that the language requiring a sample be collected within two hours of discharge commencement be relocated to avoid confusion. Sample collection staff may misinterpret the narrative language to indicate that samples must be collected for every discharge event. Moreover, the language conflicts with footnote [3] of Table E-5 where the former requires sampling within both two hours and the latter requiring a grab sample for discharges that last less than one hour. See Comment No. A.38 for proposed revisions to Table E-5 footnote [3].	<p>Westside Transport/Storage Structure Effluent. During wet weather, the Discharger shall monitor Westside Transport/Storage Structure effluent at Monitoring Location EFF-001D as shown in Table E-5. The Discharger shall begin collecting aliquots or grab samples within two hours of commencing discharge from the Westside Transport/Storage Structure directly to Discharge Point No. 001.</p>	We revised the tentative order as proposed. We moved the deleted text to Table E-5 (now Table E-6) footnote 3 to clarify that monitoring is not required for every discharge event (see our response to San Francisco Comment A.38).												
A.37	E-8 – E-9	Table E-5	SFPUC requests this modification because decant discharges often last less than 24 hours and it is difficult to predict the duration of decant discharge. SFPUC requests flexibility in terms of sampling intervals and duration.	<p>Table E-5. Westside Transport/Storage Structure Effluent Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> </tr> </thead> <tbody> <tr> <td>Flow Volume ^[1]</td> <td>⋮</td> <td>Continuous</td> </tr> <tr> <td>TSS</td> <td>⋮</td> <td>C-24C-X ^[3]</td> </tr> <tr> <td>Ammonia, total</td> <td>⋮</td> <td>C-24C-X ^[3]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Flow Volume ^[1]	⋮	Continuous	TSS	⋮	C-24 C-X ^[3]	Ammonia, total	⋮	C-24 C-X ^[3]	We revised the tentative order as proposed (Table E-5 is now Table E-6). This revision provides San Francisco flexibility to determine sampling intervals and durations, while maintaining a one-hour maximum sampling interval. The change recognizes the difficulties associated with implementing a wet weather monitoring plan. Shorter compositing intervals may actually reveal higher pollutant concentrations by capturing more “first flush” effects. The change is
Parameter	Units	Sample Type															
Flow Volume ^[1]	⋮	Continuous															
TSS	⋮	C-24 C-X ^[3]															
Ammonia, total	⋮	C-24 C-X ^[3]															

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				<table border="1"> <tr> <td data-bbox="987 196 1226 245">Arsenic</td> <td data-bbox="1226 196 1314 245">⋮</td> <td data-bbox="1314 196 1486 245">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 245 1226 293">Cadmium</td> <td data-bbox="1226 245 1314 293">⋮</td> <td data-bbox="1314 245 1486 293">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 293 1226 342">Copper</td> <td data-bbox="1226 293 1314 342">⋮</td> <td data-bbox="1314 293 1486 342">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 342 1226 391">Lead</td> <td data-bbox="1226 342 1314 391">⋮</td> <td data-bbox="1314 342 1486 391">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 391 1226 440">Nickel</td> <td data-bbox="1226 391 1314 440">⋮</td> <td data-bbox="1314 391 1486 440">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 440 1226 488">Selenium</td> <td data-bbox="1226 440 1314 488">⋮</td> <td data-bbox="1314 440 1486 488">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 488 1226 537">Silver</td> <td data-bbox="1226 488 1314 537">⋮</td> <td data-bbox="1314 488 1486 537">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 537 1226 586">Zinc</td> <td data-bbox="1226 537 1314 586">⋮</td> <td data-bbox="1314 537 1486 586">C-24C-X^[3]</td> </tr> <tr> <td data-bbox="987 586 1226 711">Remaining Ocean Plan Table 1 Pollutants^[2]</td> <td data-bbox="1226 586 1314 711">⋮</td> <td data-bbox="1314 586 1486 711">C-24C-X^[3,4]</td> </tr> </table> <p data-bbox="987 727 1486 954"> <u>Sample Types and Frequencies:</u> ... C-24 = 24 hour composite C-X = composite sample comprised of individual grab samples collected at equal intervals of no more than one hour at least until sufficient sample volume for the required analyses are completed. </p>	Arsenic	⋮	C-24 C-X ^[3]	Cadmium	⋮	C-24 C-X ^[3]	Copper	⋮	C-24 C-X ^[3]	Lead	⋮	C-24 C-X ^[3]	Nickel	⋮	C-24 C-X ^[3]	Selenium	⋮	C-24 C-X ^[3]	Silver	⋮	C-24 C-X ^[3]	Zinc	⋮	C-24 C-X ^[3]	Remaining Ocean Plan Table 1 Pollutants ^[2]	⋮	C-24 C-X ^[3,4]	<p data-bbox="1499 196 2003 318">consistent with U.S. EPA’s <i>Combined Sewer Overflows Guidance for Monitoring and Modeling</i> (January 1999, EPA 832-B-99-002).</p>
Arsenic	⋮	C-24 C-X ^[3]																														
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Remaining Ocean Plan Table 1 Pollutants ^[2]	⋮	C-24 C-X ^[3,4]																														
A.38	E-8 – E-9	Table E-5, Footnote 3	<p data-bbox="470 976 974 1279">SFPUC requests revisions to the footnote for consistency with other monitoring requirements in the section. Removing the prescribed intervals between samples is consistent with the sample type modification proposed above (see Comment No. A.37). The second sentence is removed and the requirement to collect a sample with two hours of discharge is added here per Comment No. A.36.</p>	<p data-bbox="987 976 1486 1312">^[3] If the discharge lasts less than 24 hours, the Discharger shall sample <u>at equal intervals</u> for as long as possible at equal one-hour intervals and report-record the duration. If the discharge lasts less than one hour, the Discharger shall collect at least one grab sample. <u>The Discharger shall begin collecting aliquots or grab samples within two hours of commencing discharge from the Westside Transport/Storage Structure directly to Discharge Point No. 001.</u></p>	<p data-bbox="1499 976 2003 1097">We revised the tentative order as proposed (Table E-5 is now Table E-6). See our responses to San Francisco Comments A.36 and A.37.</p>																											
A.39	E-9 – E-10	IV.B.2	<p data-bbox="470 1336 974 1458">See detailed comments in Attachment D for the request to designate a single CSD monitoring location, EFF-CSD, consistent with the current permit.</p>	<p data-bbox="987 1336 1486 1458">a. During combined sewer discharge events, the Discharger shall monitor combined sewer discharge effluent at <u>Monitoring Location EFF-CSD Monitoring</u></p>	<p data-bbox="1499 1336 2003 1425">We revised the tentative order as proposed with one exception; we revised Table E-6 (now Table E-7) footnote 1 as follows:</p>																											

#	Page	Section	Comment	Proposed Revisions	Response																																																
			<p>SFPUC requests that pH be deleted from Table E-6. The method hold time of 15 minutes cannot be realistically achieved because the occurrence of a CSD cannot be predicted and on-call staff will not be able to collect and analyze a sample under this hold time constraint. The installation of a continuous pH sensor is not practical because of the episodic nature of a CSD event; if left dry for extended periods of time, the analyzer will not function correctly.</p> <p>SFPUC requests a modification to the “C-X” sample type because CSDs typically last less than 24 hours and it is difficult to predict the duration of the discharge. SFPUC requests flexibility in terms of sampling intervals and duration to maximize the likelihood of collecting sufficient volume for all required analyses in light of the highly variable and uncertain duration of CSDs.</p> <p>SFPUC requests edits to Table E-6 footnote [1] to exclude volatile organic compounds (VOCs), and hexavalent chromium. Field samplers utilize a peristaltic (vacuum) pump, which precludes our ability to follow the sample collection requirements (i.e., grab samples) in the required laboratory methods for VOCs. For hexavalent chromium, the method hold time is 24 hours, which may not be achievable during certain wet weather events. SFPUC prefers to monitor total chromium instead of hexavalent chromium.</p> <p>SFPUC requests edits to Table E-6 footnote [2] because CSDs on the Westside typically do not last more than three hours. Aliquots collected at one-hour intervals are unlikely to generate sufficient sample volume for all required analyses.</p>	<p>Locations EFF CSD 1, EFF CSD 2, and EFF CSD 7 as follows:</p> <p>Table E-6. Combined Sewer Discharge Monitoring</p> <table border="1" data-bbox="978 337 1493 1365"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>TSS</td> <td>mg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>pH</td> <td>standard units</td> <td>Grab</td> <td>3/Year^[4]</td> </tr> <tr> <td>Ammonia, total</td> <td>mg/L as N</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Arsenic</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Cadmium</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Copper</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Lead</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Nickel</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Selenium</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Silver</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> <tr> <td>Zinc</td> <td>µg/L</td> <td>C-24 C-X [2]</td> <td>3/Year^[4]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	TSS	mg/L	C-24 C-X [2]	3/Year ^[4]	pH	standard units	Grab	3/Year^[4]	Ammonia, total	mg/L as N	C-24 C-X [2]	3/Year ^[4]	Arsenic	µg/L	C-24 C-X [2]	3/Year ^[4]	Cadmium	µg/L	C-24 C-X [2]	3/Year ^[4]	Copper	µg/L	C-24 C-X [2]	3/Year ^[4]	Lead	µg/L	C-24 C-X [2]	3/Year ^[4]	Nickel	µg/L	C-24 C-X [2]	3/Year ^[4]	Selenium	µg/L	C-24 C-X [2]	3/Year ^[4]	Silver	µg/L	C-24 C-X [2]	3/Year ^[4]	Zinc	µg/L	C-24 C-X [2]	3/Year ^[4]	<p>The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity, and <u>volatile organic compounds. The Discharger may monitor for total chromium in lieu of hexavalent chromium.</u></p> <p>Similarly, we revised Table E-3 footnote 2 (now Table E-4 footnote 1), Table E-4 footnote 3 (now Table E-5 footnote 2), Table E-5 (now Table E-6) footnote 2, and Table E-7 (now Table E-8) footnote 2 as follows:</p> <p>The Discharger shall monitor for the pollutants listed in Ocean Plan Table 1, except chlorine, tributyltin, radioactivity, acute toxicity, and chronic toxicity. <u>The Discharger may monitor for total chromium in lieu of hexavalent chromium.</u></p> <p>We agree with the proposal to eliminate the pH monitoring requirement because combined sewer discharges are not expected to significantly alter the pH of the Pacific Ocean. See our response to San Francisco Comment D.4 related to “Combined Sewer Discharge Monitoring” for additional revisions to this table.</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																																																		
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Remaining Ocean Plan Table 1 Pollutants ^[1]	µg/L	C-24 C-X _[2,3]	1/Year ^[4]						
A.40	E-12, E-13	V.A.3 and V.C	SFPUC asks that whole effluent chronic toxicity retesting or accelerated monitoring be required “as soon as possible,” the same requirement as the current permit, rather than “within seven days.” SFPUC performs chronic toxicity tests using wild-caught marine organisms provided by a commercial supplier in southern California. Test organisms are not always immediately available, depending on ocean and weather conditions, and wet weather days may preclude immediate retesting as EFF-001C reflects dry weather only. As a result, seven days is insufficient time to reliably begin a new test.	<p data-bbox="984 980 1486 1008">A. Methodology</p> <p data-bbox="984 1008 1486 1036">...</p> <p data-bbox="984 1036 1486 1247">3. If an effluent toxicity test does not meet all test acceptability criteria in the test methods manual, the Discharger shall resample and retest within seven days as soon as possible.</p> <p data-bbox="984 1247 1486 1274">...</p> <p data-bbox="984 1274 1486 1302">C. Accelerated Monitoring</p> <p data-bbox="984 1302 1486 1458">1. If a chronic bioassay test indicates a violation of the chronic toxicity effluent limitation, the Discharger shall retest within five days of receiving test results,</p>	<p data-bbox="1499 980 2001 1105">We revised Attachment E section V.A.3 of the tentative order to require retesting within 14 days if test acceptability criteria are not met:</p> <p data-bbox="1499 1105 2001 1247">If an effluent toxicity test does not meet all test acceptability criteria in the test methods manual, the Discharger shall resample and retest within 14 <u>seven</u> days.</p> <p data-bbox="1499 1247 2001 1463">The 14-day timeframe provides more flexibility and is consistent with other California coastal discharge permits (i.e., Point Loma, permit number CA0107409; Hyperion, permit number CA0109991; Edward C. Little Water Recycling Facility, permit number CA0063401; and Orange</p>				

#	Page	Section	Comment	Proposed Revisions	Response
				<p>or within seven days if the sample is contracted out to a commercial laboratory as soon as possible. Accelerated monitoring shall consist of four toxicity tests conducted at approximately two-week intervals. The Discharger shall return to routine monitoring if all four monitoring test results are "Pass."</p>	<p>County Sanitation District Reclamation Plants, permit number CA0110604). To meet this 14-day timeframe, San Francisco could use a contract laboratory if test organisms are unavailable at San Francisco's in-house laboratory. Commercial laboratories are able to turn around test results within 14 days. Alternatively, San Francisco could obtain test organisms from other commercial suppliers. We did not revise Attachment E section V.C.1 of the tentative order. If the chronic toxicity effluent limit is violated, re-testing within 5 or 7 days is essential to ensure that the discharge does not remain toxic. This requirement is also consistent with the other California coastal discharge permits listed above.</p>
A.41	E-15	V.F.4	<p>SFPUC requests the removal of the requirement to conduct the screening study during consecutive months. The effluent limits for chronic toxicity only apply during dry weather, so the screening must also be conducted during dry weather. Removing the requirement to conduct the screening study during consecutive months will make it easier to schedule the test, which is already constrained by the availability of wild-collected marine organisms.</p>	<p>b. Stage 2 shall consist of a minimum of two test batteries conducted monthly using the three most sensitive species determined based on the stage 1 test results.</p>	<p>We revised the tentative order similar to as proposed: Stage 2 shall consist of a minimum of two test batteries <u>initiated in different calendar months</u> conducted monthly using the three most sensitive species determined based on the stage 1 test results.</p>
A.42	E-16	V.F.6	<p>SFPUC requests a change in the maximum concentration of the dilution series stipulated for the chronic toxicity screening test, from 100% to 75% effluent. Conducting the test on marine organisms with 100% effluent will require adjusting the salinity using commercial-grade crystallized sea salt. In contrast, SFPUC's typical test procedure is to adjust the salinity using seawater brine made from Pacific Ocean</p>	<p>6. The Discharger shall conduct screening tests at 100 <u>75</u>, 20, 0.67, 0.37, and 0.17 percent effluent.</p>	<p>We revised the tentative order as proposed. The change is necessary because San Francisco cannot conduct the tests on 100 percent effluent.</p>

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			<p>water. Using locally-produced brine is preferable for three reasons: (1) Brine is more representative of the receiving water, (2), salt addition can create artificial toxicity, and (3) data for this test using sea salts are not available so using salt crystals instead of brine is considered provisional per EPA/600/R-95-136.</p> <p>The highest-concentration test that can be conducted using brine for salinity adjustment is 75% effluent. SFPUC believes that the 75% effluent solution will provide a satisfactory endpoint for assessing test organism sensitivity.</p>																		
A.43	E-16	Table E-10 and Table E-11	<p>The Tentative Order includes monitoring requirements of three fecal indicator bacteria (FIB) for shoreline monitoring. SFPUC requests retaining the three FIB as in the current Oceanside permit - that is, replace fecal coliform with <i>E. coli</i>. Title 17 CCR § 7958 states the minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas are based on single sample results for total coliform, fecal coliform, <u>or</u> enterococcus bacteria, indicating that any one of these parameters can be used an indicator of beach health. It is unclear why all three of these parameters need to be monitored.</p> <p>In addition, the turnaround time for <i>E. coli</i> results is less than that for fecal coliform, allowing staff to make posting and de-posting decisions sooner. The Colilert test, which simultaneously detects and quantifies both total coliform and <i>E. coli</i>, provides final results within 18 hours. In contrast, the additional laboratory analysis (Multiple-Tube Fermentation) for fecal coliform will require further staff coordination, more laboratory staff time, and additional material costs, and</p>	<p>Table E-10. Ambient Shoreline Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Enterococcus^[1]</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> <tr> <td>Fecal coliform-<i>E. coli</i></td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> <tr> <td>Total coliform</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Week</td> </tr> </tbody> </table> <p>...</p>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Week	Fecal coliform - <i>E. coli</i>	MPN/100 mL ^[2]	Grab	1/Week	Total coliform	MPN/100 mL ^[2]	Grab	1/Week	<p>We did not revise the tentative order. We retained fecal coliform monitoring because the Ocean Plan, as recently amended in 2018, includes fecal coliform water quality objectives for water contact recreation. California-specific epidemiological studies suggest fecal coliform may be a better indicator of gastrointestinal illness than enterococci during certain types of exposure and environmental conditions (State Water Board, <i>Comment Summary and Responses, Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy and Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy</i>, 2018). We did not add <i>E. coli</i> monitoring because <i>E. coli</i> is a better indicator for fresh water recreational use. Monitoring all three indicators is retained because the Ocean Plan includes enterococcus water quality objectives for water contact recreation and total coliform water quality objectives for shellfish harvesting. Monitoring the three</p>
Parameter	Units	Sample Type	Minimum Sampling Frequency																		
Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Week																		
Fecal coliform - <i>E. coli</i>	MPN/100 mL ^[2]	Grab	1/Week																		
Total coliform	MPN/100 mL ^[2]	Grab	1/Week																		

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			final results are not available until 48-72 hours after the test. The long duration of the fecal coliform incubation period renders results of limited utility for beach posting decisions.	<p>Table E-11. Post-CSD Event Shoreline Monitoring</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> </tr> </thead> <tbody> <tr> <td>Enterococcus^[1]</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Day^[3]</td> </tr> <tr> <td>Fecal coliform E. coli</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Day^[3]</td> </tr> <tr> <td>Total coliform</td> <td>MPN/100 mL^[2]</td> <td>Grab</td> <td>1/Day^[3]</td> </tr> <tr> <td>Standard Observations^[4]</td> <td>---</td> <td>---</td> <td>1/Day^[3]</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Day ^[3]	Fecal coliform E. coli	MPN/100 mL ^[2]	Grab	1/Day ^[3]	Total coliform	MPN/100 mL ^[2]	Grab	1/Day ^[3]	Standard Observations ^[4]	---	---	1/Day ^[3]	indicators is also consistent with other California coastal discharge permits (i.e., Point Loma, NPDES permit number CA0107409; Hyperion, NPDES permit number CA0109991; and Orange County Sanitation District Reclamation Plants, NPDES permit number CA0110604). While it may take a bit longer to get fecal coliform test results, San Francisco can use the enterococcus and total coliform test results (e.g. enterococcus tested with Enterolert and total coliform tested with Colilert-18 media) to make quick beach posting decisions.
Parameter	Units	Sample Type	Minimum Sampling Frequency																						
Enterococcus ^[1]	MPN/100 mL ^[2]	Grab	1/Day ^[3]																						
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Total coliform	MPN/100 mL ^[2]	Grab	1/Day ^[3]																						
Standard Observations ^[4]	---	---	1/Day ^[3]																						
A.44	E-17	Table E-11, Footnote [4]	SFPUC requests minor modifications to the reporting requirements for post-CSD shoreline monitoring in Table E-11, Footnote 4. Standard observations for Beach and Shoreline monitoring are listed in Attachment G section III.B.3, not Attachment G section III.B.1. In addition, SFPUC notes that it is infeasible to estimate the spatial extent of wastewater present in the surf zone. In lieu of estimating the size of the affected area, SFPUC will report the event duration and estimate volume of CSDs, as required by Attachment E section IV.2.b.	^[4] Standard observations are defined in Attachment G section III.B.1 III.B.3 and shall include any apparent fish kills. The estimated size of the affected area is not required.	We revised the tentative order as proposed. The change clarifies that Table E-11 (now Table E-12) requires standard observations of beaches or shorelines, and it allows San Francisco to monitor combined sewer discharge duration and volume in lieu of estimating the size of the affected area.																				

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A.45	E-18	Table E-12	SFPUC requests removal of molybdenum, organic nitrogen, ammonia nitrogen, and total solids from this table, because monitoring of these constituents is not required under the pretreatment program. SFPUC will continue to monitor these constituents under the biosolids land application program.	<p>Table E-12. Pretreatment and Biosolids Monitoring</p> <table border="1"> <thead> <tr> <th>Constituents</th> <th>⋮</th> <th>⋮</th> <th>⋮</th> <th>⋮</th> <th>⋮</th> </tr> </thead> <tbody> <tr> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Molybdenum</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Organic Nitrogen</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Ammonia Nitrogen</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> <tr> <td>Total Solids</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> <td>⋮</td> </tr> </tbody> </table>	Constituents	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	Molybdenum	⋮	⋮	⋮	⋮	⋮	Organic Nitrogen	⋮	⋮	⋮	⋮	⋮	Ammonia Nitrogen	⋮	⋮	⋮	⋮	⋮	Total Solids	⋮	⋮	⋮	⋮	⋮	We did not revise the tentative order. Table E-12 (now Table E-13) of the tentative order is for both pretreatment and biosolids monitoring. As noted in the comment, molybdenum, organic nitrogen, ammonia nitrogen, and total solids must be monitored for land application of biosolids.
Constituents	⋮	⋮	⋮	⋮	⋮																																				
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Organic Nitrogen	⋮	⋮	⋮	⋮	⋮																																				
Ammonia Nitrogen	⋮	⋮	⋮	⋮	⋮																																				
Total Solids	⋮	⋮	⋮	⋮	⋮																																				
A.46	F-3	Table F-1, Facility Contact, Title and Phone	Dale Miller's phone number is (415) 242-2225.	Dale Miller, Operations Superintendent, Wastewater Enterprise, (415) 920-4600242-2225	We revised the tentative order as proposed. The change updates the facility contact's phone number.																																				
A.47	F-4	II.A.2	Similar to Comment No. A.5, SFPUC requests language clarifying that compliance with the State Water Board Order No. 2006-0003-DWQ as amended by Order No. WQ 2013-0058-EXEC is separate from the NPDES permit. The requested language is consistent with the recently adopted permits for West County Agency (R2-2019-0003) and City of Palo Alto (R2-2019-0015).	Collection System. The Discharger's collection system is predominantly a combined sewer system with some limited separate sanitary sewers. The combined sewer system consists of approximately 250 miles of pipe, one major pump station (Westside Pump Station), six minor pump stations (four all-weather pump stations: Westside, Sea Cliff No. 1, Sea Cliff No. 2, and Pine Lake; and two wet weather pump stations: Sea Cliff No. 3 and Zoo Wet Weather Lift Station), and three large transport/storage structures (Westside Transport/Storage Structure, a 49.3-million-gallon box-like structure located beneath the Great Highway; Richmond Tunnel, a 12.0-million-gallon tunnel located to the north; and Lake Merced Tunnel, a 10.0-million-gallon tunnel located to the south). The separate sanitary sewer systems	We did not revise the tentative order. See our response to San Francisco Comment A.5.																																				

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				serve isolated areas and are also regulated <u>separately</u> under State Water Board Order No. 2006-0003-DWQ as amended by State Water Board Order No. WQ 2013-0058-EXEC.	
A.48	F-5	II.A.3.b	SFPUC requests that the clarification be added to the Fact Sheet that wet weather discharge from the Westside Transport/Storage Structure is commonly referred to among SFPUC staff as “decant”.	In addition to pumping up to 65 MGD to the plant, the Westside Pump Station can also pump flow from the Westside Transport/Storage Structure to Discharge Point No. 001 during wet weather (<u>commonly known as “decant”</u>).	We revised the tentative order similar to as proposed: ... In addition to pumping up to 65 MGD to the plant, the Westside Pump Station can also pump flow from the Westside Transport/Storage Structure to Discharge Point No. 001 during wet weather (<u>identified in the previous order as “decant”</u>). ...
A.49	F-5	II.A.3.b	SFPUC requests the edits to more accurately describe the design capacity of the Westside Pump Station wet weather pumps. SFPUC engineers working on the Westside Pump Station Reliability Improvements Project analyzed the pump performance curves for the wet weather pumps from the manufacturer and determined that the pump flowrates range from 98 to 133 MGD in three operating scenarios depending on two factors: (1) the quantity of pumps operating and (2) model/type of pumps selected to operate (as shown in the table below). The table values assume the same Net Positive Suction Head is available for all operating scenarios, and high water levels in the Transport/Storage Box (i.e., high hydraulic head). Each pump model has a rated flow capacity and total dynamic head. The two pump model numbers correspond to a high flow, low head Model CP 3501 pump (best suited to pump out flows to the ocean outfall) and a low flow, high head Model CP 3151 pump (best suited to pump to the Oceanside Plant in certain operating scenarios to maximize treatment.) The operating	The design capacity of the Westside Pump Station wet weather pumps <u>ranges from 98 to 133 MGD depending on the number and model of pumps operating when there is high hydraulic head, or high water levels, in the West Box (typically observed during wet weather operations).</u> is 110 MGD when three pumps are operating and up to 130 MGD when all four pumps are operating.	We revised the third sentence of the second paragraph of Fact Sheet section II.A.3.b similar to as proposed: The design capacity of the Westside Pump Station wet weather pumps <u>ranges from 98 to 133 MGD depending on the number and model of pumps operating when there are high water levels in the West Box of the Westside Transport/Storage Structure (typically observed during wet weather operations) is 110 MGD when three pumps are operating and up to 130 MGD when all four pumps are operating.</u>

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			<p>scenarios vary the number of pumps in operation and model numbers (corresponding flow and head capacities) of the pumps in operation, that then in turn vary the total wet-weather flow capacity for conveying flow out to the ocean outfall.</p> <table border="1" data-bbox="478 386 951 971"> <thead> <tr> <th data-bbox="478 386 772 597">Wet-Weather / West Pump Chamber Pump Configuration Operating Scenarios</th> <th data-bbox="772 386 951 597">Flowrate at High Box Level (Wet-Weather Operations)</th> </tr> </thead> <tbody> <tr> <td data-bbox="478 597 772 743">3-High Flow Capacity - Model CP 3501 1-High Head Capacity - Model CP 3531</td> <td data-bbox="772 597 951 743">133 MGD</td> </tr> <tr> <td data-bbox="478 743 772 889">2-High Flow Capacity - Model CP 3501 1-High Head Capacity - Model CP 3531</td> <td data-bbox="772 743 951 889">98 MGD</td> </tr> <tr> <td data-bbox="478 889 772 971">3-High Flow Capacity - Model CP 3501</td> <td data-bbox="772 889 951 971">109 MGD</td> </tr> </tbody> </table>	Wet-Weather / West Pump Chamber Pump Configuration Operating Scenarios	Flowrate at High Box Level (Wet-Weather Operations)	3-High Flow Capacity - Model CP 3501 1-High Head Capacity - Model CP 3531	133 MGD	2-High Flow Capacity - Model CP 3501 1-High Head Capacity - Model CP 3531	98 MGD	3-High Flow Capacity - Model CP 3501	109 MGD		
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A.50	F-5	II.A.4	<p>While the Oceanside Plant has the capacity to produce Class A biosolids, it may not be able to consistently do so depending on a number of factors, such as a potential plant process upset. Moreover, the Oceanside Plant recently experienced a digester lining failure in January 2019 and has been producing Class B biosolids since that time.</p>	<p>Sludge and Biosolids Management. The Discharger uses temperature-phased anaerobic digestion, <u>which is capable of producing to produce</u> Class A biosolids. Primary sludge, waste activated sludge, and secondary scum are mixed and co-thickened using gravity belt thickeners prior to being fed to the anaerobic digestion system. The digestion system accepts hauled-in batches of primary and secondary sludge from the Treasure Island Wastewater Treatment Plant. Digested biosolids are dewatered using screw presses and stored in hoppers prior to being loaded into covered trucks for transport. During the wet season, the majority of biosolids are hauled to a landfill for storage</p>	<p>We revised the tentative order as proposed. The change recognizes that San Francisco may not always be able to produce Class A biosolids.</p>								

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				and eventual use as interim cover, final cover, or landfill building material; a small percentage is reused for agricultural land application. During the dry season, biosolids are hauled offsite for agricultural land application.	
A.51	F-6	II.B.2	SFPUC requests the changes to the fact sheet for consistency with Paragraph II.A3.b. on page F-5. During certain storms, such as those that are microclimatic or intense from either north or south portions of San Francisco, CSDs may occur when maximum capacity is reached in local transport/storage structures although maximum capacities may not have been reached at the Oceanside Plant and the Westside Transport/Storage Structure.	2. Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. During wet weather, when the Westside Pump Station capacity is exceeded, equivalent-to-primary-treated wastewater is discharged to the Pacific Ocean at Discharge Point Nos. CSD-001, CSD-002, CSD-003, <u>and CSD-004.</u> <u>Discharges of equivalent-to-primary-treated wastewater at Discharge Point Nos. CSD-005, CSD-006, and CSD-007 occur when the capacities of the corresponding pump stations (i.e., Sea Cliff No. 1 and Sea Cliff No. 2 Pump Stations) are exceeded.</u> These discharge points are located within the territorial waters of the State.	We revised the tentative order similar to as proposed: Discharge Point Nos. CSD-001, CSD-002, CSD-003, CSD-004, CSD-005, CSD-006, and CSD-007. During wet weather, <u>when the Westside Pump Station capacity is exceeded,</u> equivalent-to-primary-treated wastewater is discharged to the Pacific Ocean at Discharge Point Nos. CSD-001, CSD-002, CSD-003, <u>and CSD-004</u> <u>when the Westside Pump Station capacity is exceeded, and at Discharge Point Nos. CSD-005, CSD-006, and CSD-007</u> <u>when the capacities of the corresponding pump stations (i.e., Sea Cliff No. 1 and Sea Cliff No. 2 Pump Stations) are exceeded,</u> 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.
A.52	F-10	III.C.2	SFPUC requests retaining language from the 2009 permit (pages F-11 and F-22) that references the 1989 bacteriological study as this language provides important background information.	<u>On May 17, 1989, the Regional Water Board adopted Order No. 89-71, amending Order No. 88-106 to delete disinfection requirements for the effluent. The Regional Water Board action was based on the Discharger's technical report dated April 3, 1989, Wastefield Transport and Bacteriological Compliance Studies of the San Francisco Ocean Outfall. The studies were conducted in 1987 and 1988. The findings indicated that the non-disinfected wastewater discharge from the Discharge Point 001 did not violate the Ocean Plan</u>	We did not revise the tentative order because we did not use the 1989 study to develop the requirements of this tentative order. Fact Sheet section III.C.2 explains that the tentative order contains discharge prohibitions, effluent limitations, receiving water limitations, and other provisions to ensure that discharges from Discharge Point No. 001 do not affect State waters.

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				<p>bacteriological body-contact standards. The Discharger now treats its wastewater to secondary treatment standards during dry weather. Regional Water Board staff used data from that study representing primary treatment to estimate the potential effects of discharging secondary-treated effluent (Regional Water Board staff memorandum, October 10, 2008). Estimated bacteria levels in federal waters were below Ocean Plan water quality objectives, so the Regional Water Board found that the deep water discharge could not affect bacteria levels in State waters.</p>	
A.53	F-14	III.D	<p>The SFPUC requests more detail be included in the fact sheet regarding fecal indicator bacteria 303(d) listings.</p>	<p>This Order does not authorize any discharge to receiving waters on California’s list of impaired waters. The Pacific Ocean at Fort Funston, Ocean Beach, Mile Rock and China Beach are not impaired for indicator bacteria. The Pacific Ocean at Baker Beach is no longer listed as impaired for indicator bacteria because the sixteen available lines of evidence show applicable water quality standards are not being exceeded.</p>	<p>We did not revise the tentative order because the text already indicates that the receiving waters are not impaired, thus they are not impaired by any pollutant, including any indicator bacteria.</p>
A.54	F-18	IV.C.1	<p>See explanation provided in Comment No. A.2, related to the overly broad requirement to comply receiving water limitations, and Comment No. A.20 related to the CSO Control Policy requirements applicable to cities that have implemented a long-term control plan (LTCP).</p>	<p>During wet weather, this Order imposes narrative effluent limitations at VI.C.5.c, not numeric limitations, on the Discharge Points identified in Table 2 of this Order. In accordance with the <i>Combined Sewer Overflow (CSO) Control Policy</i>, this Order requires the Discharger to implement and update its Long-Term Control Plan to reflect post-construction monitoring results and continued consideration of sensitive areas.</p>	<p>We did not revise the tentative order because the additional text is unnecessary. See our responses to San Francisco Comments B.1 through B.13 related to “Combined Sewer Overflow (CSO) Control Policy” and response to San Francisco Comment A.20.</p>
A.55	F-25	IV.C.5.b	<p>See explanation provided in Comment No. A.2.</p>	<p>b. Wet Weather. For wet weather discharges from Discharge Point No. 001 and CSD-001 through CSD-007 identified in Table 2 of this Order the combined sewer discharge points, the Long-Term Control</p>	<p>We did not revise the tentative order because the additional text is unnecessary. See our responses to San Francisco Comments B.1 through B.13 related to “Combined Sewer Overflow (CSO) Control Policy.”</p>

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				<p>Plan required pursuant to the <i>Combined Sewer Overflow (CSO) Control Policy</i> and described in Provision VI.C.5.c of the Order serves as the narrative WQBELs in this Order that are necessary to achieve applicable water quality standards, including to protect existing and designated uses. For wet weather discharges from the Discharge Points in Table 2 of this Order, the terms at VI.C.5.c are the applicable WQBELs. The terms at V and G.I.I.1 do not apply.</p>	
A.56	F-30	VI.C.5	<p>Changes to the Fact Sheet are requested to align it with changes requested to the permit.</p>	<p>For sewer overflows from the combined sewer system, Provision VI.C.5.a.viii(b) requires the Discharger to notify and report SOCSS to the State’s Online CIWQS database, consistent with the sanitary sewer overflow reporting requirements of State Water Board Order No. 2006-0003-DWQ, “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems,” as amended by State Water Board Order No. WQ 2013-0058-EXEC and any subsequent order updating these requirements. Water Code sections 13267 and 13383, 40 C.F.R. section 122.41(h), and the <i>Combined Sewer Overflow (CSO) Control Policy</i> authorize the Regional Water Board and EPA to require information about releases of untreated or partially treated wastewater. This information is necessary relevant to evaluating the efficacy of the Discharger’s implementation of the <u>Nine Minimum Control related to maximizing the use of the collection system for storage combined sewer system performance, and operations and maintenance practices; to determine whether any diversions of untreated or partially treated wastewater result in a discharge to surface waters; to satisfy public notification requirements; to</u></p>	<p>We revised the tentative order as shown in our response to San Francisco Comment A.9 to clarify that State Water Board Order No. 2006-0003-DWQ is not incorporated by reference, but we did not otherwise revise our rationale for the requirement:</p> <p>For sewer overflows from the combined sewer system, Provision VI.C.5.a.viii(b) requires the Discharger to notify and report sewer overflows from the combined sewer system using the State’s CIWQS database consistent with the sanitary sewer overflow reporting requirements of State Water Board Order No. 2006-0003-DWQ, “Statewide General Waste Discharge Requirements for Sanitary Sewer Systems,” as amended by State Water Board Order No. WQ 2013-0058-EXEC and any subsequent order updating these requirements. Water Code sections 13267, 13263, and 13383, 40 C.F.R. section 122.41(h), and the <i>Combined Sewer Overflow (CSO) Control Policy</i> authorize the Regional Water Board and U.S. EPA to require information about releases of untreated or partially-treated wastewater.</p>

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				<p>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.</p>	
A.57	F-32	VI.C.7	<p>SFPUC requests a more specific definition of “flame retardants,” which in its broadest definition encompasses many classes of chemicals, not all of which would be expected in municipal wastewater or stormwater. Based on the precedent of other permitted discharges to the Pacific Ocean (such as Hyperion Treatment Plant) and the justification for the special study in the Tentative Order, SFPUC plans to focus the study on polybrominated diphenyl ethers (PBDEs) and chlorinated organophosphate flame retardants.</p>	<p>7. Flame Retardant Special Study This special study is necessary to evaluate the potential impacts of flame retardants (<u>i.e., polybrominated diphenyl ethers and chlorinated organophosphate flame retardants</u>) in receiving waters. During EPA consultation with the National Marine Fisheries Service pursuant to the Endangered Species Act and Magnuson-Stevens Act, the National Marine Fisheries Service expressed concern about the presence of flame retardants in plant effluent and flame retardant mass loadings to the Pacific Ocean because organophosphates have been widely detected in San Francisco Bay water, sediment, and aquatic life tissue, and because polybrominated diphenyl ether (PBDE) and tris(1,3-dichloro-2-propyl)phosphate (TDCP) concentrations in San Francisco Bay water have regularly exceeded predicted no effect concentrations for marine settings (<i>EPA Biological Evaluation</i>, April 2019). This special study is consistent with other NPDES permits that authorize discharge to the Pacific Ocean.</p>	<p>We revised the tentative order as proposed. The flame retardants of interest are polybrominated diphenyl ethers and chlorinated organophosphate flame retardants.</p>
A.58	G-2		<p>Please see Attachment B for more detailed comments. If the Regional Water Board and EPA do not delete this standard provision and the broad requirement to comply with receiving water limitations, (see Comment No. A.2, the SFPUC requests the edits specified in Comment Nos. A.3, A.54, and A.55 to more</p>	<p>1. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.</p>	<p>We did not revise the tentative order. See our response to San Francisco Comment C.16.</p>

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			explicitly clarify the applicability of these provisions to dry weather discharges only.		