

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

RESPONSE TO WRITTEN COMMENTS

on Tentative Order for
Treasure Island Wastewater Treatment Plant and Wastewater Collection System
San Francisco, San Francisco County

The Regional Water Board received written comments from the U.S. Department of Navy and the City and County of San Francisco on a tentative order distributed for public comment. The comments are summarized below in *italics* (paraphrased for brevity) and are followed by a staff response. For the full content and context of the comments, please refer to the comment letters. To request copies of the letters, see the contact information provided in Fact Sheet section VIII.G of the revised tentative order.

Revisions are shown with strikethrough ~~text~~ for deletions and underline text for additions.

U.S. Department of Navy

Navy Comment 1: *The Navy requests that the minimum sampling frequency for pH when grab samples are collected at Monitoring Location EFF-001 be reduced from four times per week (4/Week) to twice per week (2/Week), the frequency required by the previous order. The Navy points out that effluent pH during the previous order term has been within the required pH range, so a change in the sampling frequency is unwarranted.*

Response: We agree that an increase in grab sample frequency at Monitoring Location EFF-001 is unnecessary because there were no pH violations during the previous order term. However, because the Navy monitors pH continuously, it should not rely on grab sampling to demonstrate compliance unless its continuous monitoring system is out of service (e.g., during essential maintenance). If the Navy experiences technical challenges with its continuous monitoring system, it should diligently work to resolve them in accordance with Attachment D section I.D.

Similarly, the Navy should not typically rely on grab sampling to demonstrate chlorine residual compliance at Monitoring Location EFF-001, and San Francisco should not typically rely on grab sampling to demonstrate pH and turbidity compliance at Monitoring Location EFF-002-D.

We revised Monitoring and Reporting Program (MRP) Table E-3 as follows:

Table E-3. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
⋮	⋮	⋮	⋮
Oil and Grease	mg/L	Grab	1/Quarter
pH ^[2]	s.u.	Continuous or Grab ^[3]	Continuous/D or 4/Week

Parameter	Units	Sample Type	Minimum Sampling Frequency
Temperature	°C	Grab	1/Week
Chlorine, Total Residual ^[4]	mg/L	Continuous or Grab ^[4]	Continuous/2H
Ammonia, Total	mg/L as N	C-24	1/Month
⋮	⋮	⋮	⋮

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Footnotes:

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- [3] If pH is monitored continuously, the minimum and maximum for each day shall be reported in self-monitoring reports. If the Facility's continuous monitoring system is offline for essential maintenance, the minimum grab sample frequency shall be 2/Week.
- [4] Effluent residual chlorine concentrations shall be monitored continuously or, ~~at a minimum,~~ if the Facility's continuous monitoring system is offline for essential maintenance, a minimum of once every two hours. The Discharger shall describe all excursions of the chlorine limit in the transmittal letter of self-monitoring reports as required by Attachment G section V.C.1.a. ...

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We revised MRP Table E-4 as follows (these revisions include changes in response to San Francisco Comments 10 through 12):

Table E-4. Effluent Monitoring – Monitoring Locations EFF-002-D and EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	<u>Monitoring Location</u>
⋮	⋮	⋮	⋮	⋮
Oil and Grease	mg/L	Grab	1/Quarter	<u>EFF-002-D</u>
pH ^[3]	s.u.	Continuous or Grab ^[3]	Continuous/D or 4/Week ^[4]	<u>EFF-002-D</u>
Turbidity	NTU	Continuous or Grab ^[5]	Continuous/D or 1/Day	<u>EFF-002-D</u>
Temperature	°C	Continuous or Grab	Continuous/D or 1/Week 1/Month ^[4]	<u>EFF-002-D</u>
Ammonia, Total	mg/L as N	C-24	1/Month ^[4]	<u>EFF-002-D</u>
⋮	⋮	⋮	⋮	⋮

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Footnotes:

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- [3] If pH is monitored continuously, the minimum and maximum for each day shall be reported in self-monitoring reports. If the Facility's continuous monitoring system is offline for essential maintenance, the minimum grab sample frequency shall be 4/Week.
- [4] Ammonia monitoring for compliance determination shall be performed on the same day as pH and temperature monitoring.
- [5] If turbidity is monitored continuously, monitoring may occur after membrane filtration but upstream of disinfection, and the maximum for each day shall be reported in self-monitoring reports. If the Facility's continuous monitoring system is offline for essential maintenance, the minimum grab sample frequency shall be 1/Day.

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Navy Comment 2: *The Navy requests that Fact Sheet section I.A be modified to properly distinguish the Cooperative Agreement, which is between the Navy and the City and County of San Francisco, from the Memorandum of Understanding, which is between the San Francisco Public Utilities Commission and the Treasure Island Development Authority.*

Response: We agree and revised Fact Sheet section I.A (first paragraph) as follows:

The U.S. Navy (Discharger) owns the Treasure Island Wastewater Treatment Plant, which treats municipal wastewater from Treasure Island and Yerba Buena Island in the City of San Francisco. The Treasure Island Development Authority (TIDA) is the contract operator for the plant and its associated collection system (collectively, the Facility) under a cooperative agreement between the Discharger and the City and County of San Francisco. Pursuant to the agreement, the San Francisco Public Utilities Commission operates and maintains the Facility pursuant to a Memorandum of Understanding with TIDA that is subject to renewal annually.

Navy Comment 3: *The Navy requests a change to the definition of a treatment bypass in Fact Sheet section IV.A.1.c. The tentative order states that relying solely on the rock trickling filter is not considered a bypass. Similarly, the Navy asks that relying solely on the plastic trickling filter also not be considered a bypass because duplication of the trickling filter process is not required to achieve sufficient biological treatment, particularly given the low levels of organic loading to the facility.*

Response: We disagree. The plant experienced several biochemical oxygen demand (BOD₅) and total suspended solids (TSS) effluent limit violations in 2015 that the Navy attributed to inadequate treatment due to the plant’s rock trickling filter being out of service for critical repairs (see Fact Sheet section II.D.1). Because the Navy relies on the rock trickling filter to provide adequate biological treatment, routing wastewater around this treatment unit should be considered a bypass.

Navy Comment 4: *The Navy requests revisions to Fact Sheet Table F-12 to correct typographical errors and to incorporate changes to MRP requirements based on other comments.*

Response: We agree and revised Fact Sheet Table F-12 as follows (these revisions incorporate changes in response to Navy Comment 1 and San Francisco Comments 12, 13, and 21):

Table F-12. Monitoring Requirements Summary

Parameter ^[1]	Influent INF-001 ^[2]	Influent INF-002 ^[2]	Effluent EFF-001 ^[2]	Effluent EFF-002-D ^[2]	Effluent EFF-002 ^[2]	Recycled Water REC-001 ^[2]	Receiving Water
Flow	Continuous/D	Continuous/D	Continuous/D	Continuous/D	Continuous/D =	Continuous/D	—
BOD ₅	1/Week	1/Week	1/Week	1/Week	—	—	—
TSS	1/Week	1/Week	1/Week	1/Week	—	—	—
Oil and Grease	—	—	1/Quarter	1/Quarter	—	—	—
pH	—	—	Continuous/D or 4/Week	Continuous/D or 4/Week	—	—	Support RMP
Turbidity	—	—	—	Continuous/D or 1/Day	—	—	—

Parameter ^[1]	Influent INF-001 ^[2]	Influent INF-002 ^[2]	Effluent EFF-001 ^[2]	Effluent EFF-002-D ^[2]	Effluent EFF-002 ^[2]	Recycled Water REC-001 ^[2]	Receiving Water
Temperature	—	—	1/Week	Continuous/D or 1/Week 1/Month	—	—	Support RMP
Chlorine, Total Residual	—	—	Continuous/ 2H	—	—	—	—
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Enterococcus Bacteria	—	—	1/Week	1/Week	—	—	—
Bis(2-Ethylhexyl) Phthalate			2/Year	— <u>2/Year</u>	—	—	Support RMP
Chlorodibromo-methane			1/Month 1/Quarter	—	—	—	Support RMP
Copper, Total Recoverable	—	—	1/Month	— <u>1/Month</u>	—	—	Support RMP
Cyanide, Total	1/Year	1/Year	1/Month	— <u>1/Month</u>	—	—	Support RMP
Dioxin-TEQ	—	—	1/Year ^[3]	— <u>1/Year ^[3]</u>	—	—	Support RMP
Acute Toxicity	—	—	1/Quarter	1/Quarter	—	—	—
Chronic Toxicity	—	—	2/Year	2/Year	—	—	—
Remaining Priority Pollutants	—	—	1/Year ^[4]	1/Year ^[4]	—	—	Support RMP
Standard Observations	—	—	—	1/Week <u>—</u>	1/Week	—	—

City and County of San Francisco

San Francisco Comment 1: *San Francisco requests that the “Planned Facility” information be removed from Table 1 of the tentative order because the Navy will not own or operate the Planned Facility and Fact Sheet Table F-1 provides more complete information. Listing the Planned Facility in Table 1 is unnecessary to transfer of the permit.*

Response: We agree and revised Table 1 as follows:

Table 1. Discharger Information

Discharger	U.S. Department of Navy
Facility Name	Facility: Treasure Island Wastewater Treatment Plant and its collection system Planned Facility: Treasure Island Water Resource Recovery Facility and its collection system
Facility Address	1220 Avenue M San Francisco, CA 94130 San Francisco County
CIWQS Place Number	266328

San Francisco Comment 2: *San Francisco objects to the narrative permit requirement in Attachment G section I.I.1 that states, “Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code section 13050.” San Francisco says this provision is “a generic water quality-based effluent limitation, which was not prepared in a manner that is consistent with the applicable laws, regulations, and guidance documents.” Specifically, San Francisco says this requirement:*

- 1. Bypasses the NPDES permitting process in that it references applicable water quality standards, but does not translate them into water quality-based effluent limits (San Francisco cites 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 and unnecessarily resurrects “causation” as a fundamental element of the NPDES permitting framework (San Francisco cites 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.); and*
- 3. Creates uncertainty for the Discharger rather than setting clear expectations as to whether it is in compliance with the permit.*

If the Regional Water Board disagrees that Attachment G section I.I.1 is a water quality-based effluent limitation, or refuses to remove this provision, then San Francisco requests that the Regional Water Board describe the rationale behind its conclusion and identify all factual and legal support upon which it is relying to justify it.

Response: This response includes a response to San Francisco Comment 6, which makes similar points regarding section V of the tentative order (Receiving Water Limitations). Both that provision and Attachment G section I.I.1 are supported by applicable law and available facts, and are consistent with the Clean Water Act, NPDES regulations, State water quality standards, and State law.¹

Regarding Attachment G section I.I.1, which specifies that neither the treatment nor the discharge may create pollution, contamination, or nuisance, 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. The tentative order, if adopted, will serve as waste discharge requirements under State law and thus complies with Water Code section 13263(a) by requiring that neither the treatment nor the discharge of pollutants may create pollution, contamination, or nuisance.² Water Code section 13304 also justifies the

¹ The Regional Water Board addressed similar comments during the reissuance of San Francisco’s NPDES permits for discharges from the Oceanside Water Pollution Control Plant, Wastewater Collection System, and Westside Recycled Water Project (Order No. R2-2019-0028) and Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and Wastewater Collection System (Order No. R2-2013-0029).

² Water Code section 13050 defines “pollution,” “contamination,” and “nuisance.” The State Water Board has stated that the discharge prohibition against nuisance, contamination, and pollution “should generally be complied with at all times.” State Water Board Order No. WQ 2001-015, p. 3, fn. 18.

prohibition against creating conditions of pollution, contamination, or nuisance by empowering the Regional Water Board to control discharges that create or threaten to create such conditions.

Regarding section V of the tentative order, Fact Sheet section V describes the purpose of the receiving water limitations as follows: “The receiving water limitations in sections V.A and V.B of the Order are based on Basin Plan narrative and numeric water quality objectives. The receiving water limitation in section V.C of the Order requires compliance with federal and State water quality standards in accordance with the [Clean Water Act] and regulations adopted thereunder.” Thus, the receiving water limitations are directly derived from applicable water quality standards.

By including section V and Attachment G section I.I.1, the tentative order does not bypass the NPDES permitting process by not translating applicable water quality standards into water quality-based effluent limits.³ Fact Sheet section IV.C explains how water quality standards have been translated into effluent limits. Moreover, the State Water Board has affirmed, “Broad permit requirements implementing water quality standards, not stated as effluent limitations, may be included in permits and are enforceable.”⁴ 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.”⁵ The difference between “effluent limitations” and “receiving water limitations,” as those terms are used in the tentative order, is that compliance with effluent limitations is based on the quality of the effluent, whereas compliance with receiving water limitations is determined with respect to the discharge’s effect on the receiving water.⁶ Thus, as the State Water Board has said, “When a discharger is shown to be causing or contributing to an exceedance of water quality standards, that discharger is in violation of the permit’s receiving water limitations and potentially subject to enforcement by the water boards or through a citizen suit....” This “direct enforcement of water quality standards is necessary to protect water quality, at a minimum as a back-stop where dischargers fail to meet [permit] requirements.”⁷

³ See U.S. EPA’s Response to San Francisco’s Petition for Review of Oceanside NPDES Permit, NPDES Appeal 20 (Feb. 28, 2020), pp. 16-26; see also State Water Board Order No. WQ 77-19, p. 3 (effluent limitation prohibiting foam in the discharge and visible foam in the receiving water was proper).

⁴ State Water Board Order No. WQ 2002-0012, p. 15; see also State Water Board Order No. 2004-0013-DWQ, p. 13 (Yuba City), in which the State Water Board stated that a concentration-based effluent limitation and receiving water limitation for pH will together achieve the water quality objective for the Feather River.

⁵ See 33 U.S.C. § 1362(11).

⁶ See State Water Board Order No. WQ-2002-0012, p. 24 (East Bay Municipal Utility District); see also State Water Board Order No. WQ 2018-0002, pp. 10-11 (discussing role of receiving water limitations, as opposed to discharge monitoring, in achieving water quality objectives); State Water Board Resolution No. 2008-0025, p. 3 (Policy for Compliance Schedules in NPDES Permits), which categorizes effluent limitations and receiving water limitations as different types of “permit limitations.”

⁷ See State Water Board Order No. 2015-0075-DWQ, pp. 8-9; see also State Water Board Order No. 2016-0039-DWQ, at p. 55 (numeric effluent limitations were not required to ensure that pesticide discharges met water quality standards, instead, implementation of BMPs and compliance with receiving water limitations would ensure compliance).

Receiving water limitations are not “improper” or “unnecessary” simply because they cannot be enforced without establishing a causal link (i.e., causation) between the discharge and a problem in the receiving water. San Francisco incorrectly asserts that, because the NPDES permitting scheme emphasizes control of the constituents in a discharge, regulators may not prohibit discharges from causing harm to the receiving water.⁸ While showing that a constituent in a discharge exceeds an effluent limitation may be easier than showing that the discharge causes an exceedance of a water quality standard in the receiving water, a permit may still impose requirements that protect receiving water quality directly.⁹ The Clean Water Act requires NPDES permits to include conditions ensuring that discharges comply with its substantive provisions, including limitations “necessary to meet [state] water quality standards.”¹⁰ NPDES regulations require that permits 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.¹¹

The tentative order does not create uncertainty; it sets clear expectations for compliance. As explained in Fact Sheet section III.C.1, applicable water quality standards are found in the Basin Plan and elsewhere. The Regional Water Board has discretion in translating water quality standards into permit limitations.¹² Thus, while San Francisco may prefer more specificity in the receiving water limitations, the tentative order establishes clear expectations for compliance and does not fail to translate applicable water quality standards into its terms.¹³ Courts have upheld and found narrative water quality standards to be enforceable.¹⁴

⁸ 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.”); see also *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).

⁹ See State Water Board Order No. 2015-0075-DWQ, *supra*, p. 8; State Water Board Order No. 2018-0002-DWQ, pp. 10-11.

¹⁰ See 33 U.S.C. §§ 1311(b)(1)(C) and 1342(a)(2).

¹¹ See 40 C.F.R. § 122.44(d)(1) and 122.44(k); see also *Id.* § 122.4(d) (Permits must “ensure compliance with the applicable water quality requirements of all affected States.”) and 54 Fed. Reg. 23868, 23875 (June 2, 1989) (“Narrative water quality criteria have the same force of law as other water quality criteria.”).

¹² See *City of Taunton, Massachusetts v. EPA* (1st Cir. 2018) 895 F.3d 120, 126, 133; see also 40 C.F.R. § 122.44(k).

¹³ 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.”).

¹⁴ 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). See also *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

Permit terms similar to those in section V of the tentative order 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., Cities of San José and Santa Clara, Order No. R2-2020-0001; City of Sunnyvale, Order No. R2-2020-0002; and Fairfield-Suisun Sewer District, Order No. R2-2020-0012). The various regional water boards have included narrative receiving water limitations in NPDES permits since the early 1970s, and the State Water Board has consistently supported their inclusion.¹⁵ 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.

San Francisco Comment 3: *San Francisco requests that language be added to Discharge Prohibition III.A to clarify that it relates only to discharges to waters of the United States.*

Response: We disagree. Discharge Prohibition III.A is not limited to discharges to waters of the United States. The tentative order does not authorize any discharges to any waters of the State other than those specifically described in the tentative order. This prohibition is based on 40 C.F.R. section 122.21(a) and Water Code section 13260, which require filing an application and Report of Waste Discharge before a discharge can occur. As explained in Fact Sheet section IV.A.1, any discharge not described in an application and Report of Waste Discharge, and subsequently in the permit, is prohibited. The purpose of this prohibition is to ensure that the Regional Water Board's understanding and assumptions regarding the permitted discharge remain valid and thus ensure that the permit's requirements remain appropriate to protect water quality.

San Francisco Comment 4: *San Francisco requests clarification that Discharge Prohibition III.E refers to untreated or partially treated discharges from the wastewater collection system to waters of the United States because the term "sanitary sewer overflow" is undefined.*

Response: Sanitary sewer overflows are untreated or partially treated discharges from wastewater collection systems to any waters of the State; they are not limited to discharges to waters of the United States. Although Discharge Prohibition III.E refers explicitly to discharges to waters of the United States, the tentative order does not authorize sanitary sewer overflows to other waters of the State. Water Code section 13260 requires filing a Report of Waste Discharge and obtaining waste discharge requirements before any such discharge may occur. San Francisco and the Navy have each enrolled under 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 thus have waste discharge requirements for their sanitary sewer collection systems. Like the tentative order, the statewide

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.

¹⁵ See State Water Board Order No. WQ 76-4, p. 2; see also Order No. WQ 75-11, pp. 2-3; WQ 99-05.

waste discharge requirements do not authorize untreated or partially treated discharges to waters of the State.

San Francisco Comment 5: *San Francisco requests correction of a typographical error regarding the turbidity effluent limitation in Table 4 of the tentative order.*

Response: We agree and revised Table 4 as follows:

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
:	:	:	:	:	:	:
pH ^[1]	s.u.	—	—	—	6.5	8.5
Turbidity	NTU	—	—	—	10 <u>—</u>	— <u>10</u>
Ammonia, Total	mg/L as N	2.0	—	4.0	—	—
:	:	:	:	:	:	:

San Francisco Comment 6: *San Francisco requests deletion of the narrative permit terms in section V (Receiving Water Limitations) and the rationale for these terms in Fact Sheet section V. San Francisco states that this section contains “generic water quality-based effluent limitations, which were not prepared in a manner that is consistent with the applicable laws, regulations, and guidance documents.” San Francisco uses the same reasoning as described in San Francisco Comment 2. San Francisco adds that the tentative order provides no meaningful explanation of the nature or importance of a “receiving water limitation,” how it differs from a water quality-based effluent limitation, or how a receiving water limitation fits into the Clean Water Act’s legal framework. San Francisco asks for clarification regarding the distinction between “receiving water limitations” and “water quality-based effluent limitations,” and the corresponding legal implications arising from that distinction.*

Response: See response to San Francisco Comment 2.

San Francisco Comment 7: *San Francisco requests that section VI.C.3.b.vi of the tentative order be revised to clarify that the Navy already has a pollution prevention public outreach program.*

Response: We agree and revised section VI.C.3.b.vi as follows:

Continuation of Public Outreach Program. The Discharger shall ~~prepare a~~ continue its pollution prevention public outreach program for its service area.

San Francisco Comment 8: *San Francisco requests changes to section VI.C.5.c.vi of the tentative order to allow more flexibility in developing a monitoring plan for the planned facility’s treatment wetland. San Francisco states that the implementation timeline proposed in the tentative order may be insufficient to assess seasonal variability in treatment effectiveness and may not allow enough time for vegetation to establish itself in the wetland. San Francisco requests that it be allowed to develop a flexible work plan that identifies constituents of concern, monitoring locations and frequencies, and an anticipated schedule for vegetation growth.*

Response: We agree and revised section VI.C.5.c.vi as follows:

~~Proposed monitoring schedule~~ A work plan to assess the effectiveness of the Planned Facility’s treatment wetlands at removing constituents of concern, such as cyanide, copper, and nutrients. This proposal shall be acceptable to the Executive Officer and implemented within 45 days of submission in accordance with the schedule set forth in the work plan.

San Francisco Comment 9: *San Francisco requests that the minimum sampling frequency for pH when grab samples are collected at Monitoring Location EFF-001 be reduced from four times per week (4/week) to twice per week (2/Week), the frequency required by the previous order.*

Response: See response to Navy Comment 1.

San Francisco Comment 10: *San Francisco requests to add a column to MRP Table E-4 to specify the monitoring location for each parameter. Both the text preceding the table and the table’s title refer to Monitoring Locations EFF-002-D and EFF-002, which could be interpreted as requiring monitoring of all parameters at both locations. San Francisco believes the intention is to require monitoring only at Monitoring Location EFF-002-D for all parameters, except standard observations. San Francisco notes that additional monitoring at Monitoring Location EFF-002 may be required through the work plan described in section VI.C.5.c.vi of the tentative order when the planned facility is constructed.*

Response: We agree and revised Table E-4 as follows (these revisions include changes in response to Navy Comment 1 and San Francisco Comments 11 through 13):

Table E-4. Effluent Monitoring – Monitoring Locations EFF-002-D and EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Monitoring Location
Flow ^[1]	MG/MGD	Continuous	Continuous/D	<u>EFF-002-D</u>
⋮	⋮	⋮	⋮	⋮
pH ^[2]	s.u.	Continuous or Grab ^[3]	Continuous/D or 4/Week ^[4]	<u>EFF-002-D</u>
Turbidity	NTU	Continuous or Grab ^[5]	Continuous/D or 1/Day	<u>EFF-002-D</u>
Temperature	°C	Continuous or Grab	Continuous/D or 1/Week 1/Month ^[4]	<u>EFF-002-D</u>
Ammonia, Total	mg/L as N	C-24	1/Month ^[4]	<u>EFF-002-D</u>
Total Coliform Bacteria	MPN/100 mL ^[5-6]	Grab	1/Quarter	<u>EFF-002-D</u>
Enterococcus Bacteria ^[6-7]	CFU/100 mL ^[5-6]	Grab	1/Week	<u>EFF-002-D</u>
Bis(2-Ethylhexyl) Phthalate	µg/L	Grab	2/Year	<u>EFF-002-D</u>
⋮	⋮	⋮	⋮	⋮
Dioxin-TEQ	µg/L	Grab	1/Year	<u>EFF-002-D</u>
Acute Toxicity ^[7-8]	% survival	C-24	1/Quarter	<u>EFF-002-D</u>
Chronic Toxicity ^[8-9]	TU _c	C-24	2/Year	<u>EFF-002-D</u>
Remaining Priority Pollutants ^[9-10]	µg/L	Grab	1 Year ^[10-11]	<u>EFF-002-D</u>
Standard Observations ^[11-12]	—	—	1/Week	<u>EFF-002</u>

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Footnotes:

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- [4] Ammonia monitoring for compliance determination shall be performed on the same day as pH and temperature monitoring.
- [5] If turbidity is monitored continuously, the maximum for each day shall be reported in self-monitoring reports. If the Facility's continuous monitoring system is offline for essential maintenance, the minimum grab sample frequency shall be 1/Day.
- [5-6] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL.
- [6-7] U.S. EPA Method 1600 or an equivalent method is suggested to measure culturable enterococci.
- [7-8] Acute bioassay tests shall be performed in accordance with MRP section V.A.
- [8-9] Chronic bioassay tests shall be performed in accordance with MRP section V.B.
- [9-10] The Discharger shall monitor for the pollutants listed in Attachment G, Table B.
- [10-11] The Discharger shall monitor for all priority pollutants within one year of the Planned Facility becoming operational.
- [11-12] The Discharger shall make Standard Observations once per week at ~~both EFF-002-D and EFF-002~~ and EFF-002. Standard Observations are specified in Attachment G section III.C B.2.

San Francisco Comment 11: *San Francisco requests to add a footnote to MRP Table E-4 to specify the analytical result to be reported for turbidity. San Francisco proposes to report the instantaneous maximum, consistent with the turbidity effluent limitation.*

Response: We agree and revised MRP Table E-4 as shown with our response to San Francisco Comment 10.

San Francisco Comment 12: *San Francisco requests that the minimum sampling frequency for temperature in MRP Table E-4 be changed to once per month (1/Month), the same frequency as total ammonia. San Francisco's understanding is that temperature monitoring is necessary to calculate un-ionized ammonia in the effluent, hence the requirement to monitor ammonia, pH, and temperature on the same day as stated in MRP Table E-4, footnote 4. San Francisco also requests removal of continuous monitoring as an option for temperature monitoring in MRP Table E-4 because continuous temperature monitoring is unnecessary.*

Response: We agree and revised MRP Table E-4 as shown with our response to San Francisco Comment 10.

San Francisco Comment 13: *San Francisco requests removal of the requirements to conduct standard observations at Monitoring Location EFF-002-D because the current design of the planned facility would not allow for standard observations at any point immediately downstream of disinfection. San Francisco proposes to conduct standard observations at Monitoring Location EFF-002 only. San Francisco also requests a minor revision to MRP Table E-4, footnote 11, to clarify that requirements for standard observations are specified in Attachment G section III.B.2, rather than Attachment G section III.C.*

Response: We agree and revised MRP Table E-4 as shown with our response to San Francisco Comment 10 (footnote 11 is now footnote 12).

San Francisco Comment 14: *San Francisco requests that influent and recycled water monitoring locations be included in MRP Table E-7 for completeness. San Francisco further requests that the first quarterly sampling period for the planned facility begin with the calendar*

quarter that begins on or after the date that discharge commences at Discharge Point No. 002; it is concerned that it may be challenging to complete an in-house acute toxicity test with the appropriate organisms during the startup phase.

Response: We agree that MRP Table E-7 should be updated to refer to the influent and recycled water monitoring locations. We disagree that the first quarterly monitoring should necessarily begin with the first calendar quarter after discharge commences. As written, MRP Table E-7 would require the first quarterly monitoring as soon as discharge commences if at least half of a calendar quarter is available to complete the monitoring. Roughly six weeks should be sufficient for San Francisco to complete an acute toxicity test or arrange to do so using an outside laboratory. Moreover, Provision VI.C.5.c of the tentative order allows San Francisco to submit a startup operations plan at least 30 days in advance of commencing planned facility operations, describing any actions it will take during the startup period that involve adjusting and testing new treatment units. This option provides San Francisco with some flexibility if the new discharge happens to violate any effluent limitations because mandatory minimum penalties would not apply during that period.

We revised Table E-7 as follows:

Table E-7. Monitoring Periods

Sampling Frequency	Monitoring Locations <u>INF-001 and EFF-001</u> Monitoring Period Begins On...	Monitoring Locations <u>INF-002, EFF-002-D, and EFF-002, and REC-001</u> Monitoring Period Begins On...	Monitoring Period
Continuous/D	Order effective date	Date discharge from Discharge Point No. 002 commences	All times
:	:	:	:

San Francisco Comment 15: *San Francisco requests that Fact Sheet section I.A be modified to distinguish between the Cooperative Agreement and the Memorandum of Understanding.*

Response: See response to Navy Comment 2.

San Francisco Comment 16: *San Francisco requests to add a sentence to the second paragraph of Fact Sheet section I.A to clarify that the permit may be transferred from the Navy to TIDA in accordance with Attachment D section II.C.*

Response: We agree and revised Fact Sheet section I.A (second paragraph) as follows:

As part of a comprehensive redevelopment of Treasure Island, the Discharger is in the process of transferring ownership of the Facility to TIDA. It has already transferred portions of its collection system; it expects to transfer the remainder of the collection system and the Treasure Island Wastewater Treatment Plant by 2022. If and when the ownership transfer of the Facility occurs, this Order may be transferred from the U.S. Navy to TIDA in accordance with Attachment D section II.C.

San Francisco Comment 17: *San Francisco requests minor modifications to the description of the planned facility's tertiary treatment system for internal consistency and to align with the language used to describe recycled water in Title 22 section 60301.230.*

Response: We agree and revised Fact Sheet section II.A.3.b (first paragraph) as follows:

Planned Facility. The Planned Facility will be designed to treat all wastewater to ~~Title 22~~ tertiary treatment standards. It is being designed for an average dry weather flow of 1.3 MGD and a peak wet weather flow of 3.9 MGD.

We revised Fact Sheet section II.A.5.b (first paragraph) as follows:

Planned Facility. The Planned Facility will be designed to achieve the disinfected tertiary treatment standards of California Code of Regulations, Title 22, Division 4, section 60301.230. The average annual recycled water demand is anticipated to be 0.43 MGD, with a peak flow of 0.98 MGD. ...

San Francisco Comment 18: *San Francisco requests clarification that the term "Category 1 SSO" refers to the term as defined in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ, as amended by State Water Board Order No. 2013-0058-EXEC).*

Response: We agree and revised Fact Sheet section II.D.2 (first paragraph) as follows:

Collection System. The table below shows the Discharger's collection system's sanitary sewer overflow (SSO) rates (total SSOs per 100 miles of collection system) for Category 1 SSOs over the last five years, the length and age of the collection system, and comparisons to Category 1 SSO rates for the San Francisco Bay Region and the State. It also shows SSO rates for TIDA because the Discharger began incrementally transferring ownership of its collection system to TIDA in 2015 (see Fact Sheet section II.E). As defined in the statewide WDRs described in Provision VI.C.4.b, Category 1 SSOs are those that reach waters of the United States and thus may violate Prohibition III.E of this Order.

San Francisco Comment 19: *San Francisco requests to change the definition of a treatment bypass in Fact Sheet section IV.A.1.c to not consider relying solely on the plastic trickling filter to be a bypass.*

Response: See response to Navy Comment 3.

San Francisco Comment 20: *San Francisco requests addition of clarifying language regarding the maximum flows used for the design of the planned facility's submerged membrane filtration system. Membrane trains will be taken out of service for cleaning one at a time, so for design purposes it is assumed that a membrane may be offline for cleaning during maximum monthly flow conditions.*

Response: We agree and revised Fact Sheet section IV.A.2.c as follows:

The Planned Facility is expected to be more reliable than the existing Facility.
The Planned Facility will include influent equalization to ensure treatment even

during peak flows. Additionally, the submerged membrane filtration system will be sized to allow one membrane train to be taken offline during maximum monthly flows while still meeting all effluent limitations. Finally, disinfected effluent may be sent back to the headworks for additional treatment if effluent quality is compromised.

San Francisco Comment 21: *San Francisco requests revisions to Fact Sheet Table F-12 to correct typographical errors and to incorporate changes to MRP requirements based on other comments.*

Response: See response to Navy Comment 4.

Staff-Initiated Changes

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

1. We incorporated additional available data into the calculation of shallow-water copper site-specific translators. To reflect this change, we revised Fact Sheet Table F-7 as follows:

Table F-7. Site-Specific Translators

Parameter	Acute	Chronic
Copper – Deep-Water	0.87	0.73
Copper – Shallow-Water	0.85 0.84	0.71 <u>0.74</u>
Nickel	0.85	0.65
Zinc	0.51	0.37

2. We revised Fact Sheet Table F-11b as follows to reflect the correct site-specific translators:

Table F-11b. WQBEL Calculations – Planned Facility

Pollutant	Copper	Cyanide	Dioxin-TEQ	Bis(2-Ethylhexyl) Phthalate
Units	µg/L	µg/L	µg/L	µg/L
Basis and Criteria type	CTR Saltwater Aquatic Life Basin Plan SSO	Basin Plan SSO	CTR Human Health	CTR Human Health
Criteria - Acute	11 <u>—</u>	—	—	—
Criteria - Chronic	8.4 <u>—</u>	—	—	—
Site-Specific Objective Criteria - Acute	— <u>11</u>	9.4	—	—
Site-Specific Objective Criteria - Chronic	— <u>8.1</u>	2.9	—	—
Water Effects Ratio (WER)	1	1	1	1
Lowest Water Quality Objective (WQO)	8.4 <u>8.1</u>	2.9	1.4 x 10 ⁻⁸	5.9
Site-Specific Translator - MDEL	0.85 <u>0.84</u>	—	—	—
Site-Specific Translator - AMEL	0.71 <u>0.74</u>	—	—	—

Pollutant	Copper	Cyanide	Dioxin-TEQ	Bis(2-Ethylhexyl) Phthalate
Dilution Factor (D)	2.25	2.25	0	0
⋮	⋮	⋮	⋮	⋮
Applicable Acute WQO	11	9.4	—	—
Applicable Chronic WQO	8.4 <u>8.1</u>	2.9	—	—
HH Criteria	—	220,000	1.4 x 10 ⁻⁸	5.9
⋮	⋮	⋮	⋮	⋮
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?	N	N	Y	N
ECA Acute	30 <u>31</u>	29	—	—
ECA Chronic	22 <u>21</u>	8	—	—
ECA HH	—	710,000	1.4 x 10 ⁻⁸	5.9
⋮	⋮	⋮	⋮	⋮
ECA Chronic Mult99	0.67	0.25	—	—
LTA Acute	44 <u>15</u>	4.0	—	—
LTA Chronic	15 <u>14</u>	2.1	—	—
Minimum of LTAs	14	2.1	—	—
⋮	⋮	⋮	⋮	⋮
MDEL Mult99	2.1	7.3	3.1	3.3
AMEL (Aquatic Life)	19 <u>18</u>	5.1	—	—
MDEL (Aquatic Life)	30 <u>29</u>	15	—	—
MDEL/AMEL Multiplier	1.6	2.9	2.0	2.1
AMEL (Human Health)	—	710,000	1.4 x 10 ⁻⁸	5.9
MDEL (Human Health)	—	2.1 x 10 ⁶	2.8 x 10 ⁻⁸	12
Minimum of AMEL for Aq. life vs HH	19 <u>18</u>	5.1	1.4 x 10 ⁻⁸	5.9
Minimum of MDEL for Aq. Life vs HH	30 <u>29</u>	15	2.8 x 10 ⁻⁸	12
Previous Order (Facility) Limit – AMEL	33	20	1.4 x 10 ⁻⁸	53
Previous Order (Facility) Limit - MDEL	46	44	2.8 x 10 ⁻⁸	120
Final Limit - AMEL	19 <u>18</u>	5.1	1.4 x 10⁻⁸	5.9
Final Limit - MDEL	30 <u>29</u>	15	2.8 x 10⁻⁸	12

3. We revised Table 4 to reflect the updated copper water quality-based effluent limitations:

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
⋮	⋮	⋮	⋮	⋮	⋮	⋮
Bis(2-Ethylhexyl) Phthalate	µg/L	5.9	—	12	—	—
Copper, Total Recoverable	µg/L	19 <u>18</u>	—	30 <u>29</u>	—	—
Cyanide, Total	µg/L	5.1	—	15	—	—
⋮	⋮	⋮	⋮	⋮	⋮	⋮