

California Regional Water Quality Control Board
San Diego Region

Response to Comments Report

Tentative Order No. R9-2022-0003

NPDES No. CA0107492

Waste Discharge Requirements for Padre Dam Municipal Water District, Ray Stoyer
Water Recycling Facility, Discharge to Sycamore Creek, San Diego County

February 9, 2022



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INTRODUCTION

This report contains the California Regional Water Quality Control Board, San Diego Region's (San Diego Water Board) responses to written comments received from interested parties and persons on Tentative Order No. R9-2022-0003, NPDES No. CA017492, *Waste Discharge Requirements for Padre Dam Municipal Water District, Ray Stoyer Water Recycling Facility, Discharge to Sycamore Creek, San Diego County* (Tentative Order).

The San Diego Water Board provided public notice of the release of the Tentative Order on October 15, 2021, and provided a period of at least 30 days for public review and comment on the Tentative Order. The public comment period ended on November 15, 2021.

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Comments and Responses

The summarized written comments and San Diego Water Board responses are set forth below. The section of the Tentative Order the comment pertains to is shown in parenthesis in each comment below. The responses include a description of any actions taken to revise the Tentative Order in response to the comment. Proposed revisions to the Tentative Order are in red-underline for added text and ~~red-strikeout~~ for deleted text.

COMMENTS AND RESPONSES

1. Comments from Padre Dam

1.1. **Comment - List Constituents in Alphabetical Order (Tables 2,4; and Table F-2 of Attachment F)**

Please list constituents in alphabetical order or organize by type of constituent to allow the reader to easily find a given constituent.

Response

Constituents listed in Tables 2, 3, and 4 of the Order; and Tables F-2, F-3, and F-15 of Attachment F have been rearranged in alphabetical order.

1.2. **Comment – Table F-2 missing entries (Table F-2 of Attachment F)**

Table F-2 is missing entries for chronic toxicity.

Response

Chronic toxicity test results are reported as “pass” or “fail” with a percent effect value. Table F-2 in Attachment F of the Tentative Order tabulates historical effluent limitations and monitoring data. However, the format of Table F-2 is not suited for describing chronic toxicity test results. Chronic toxicity violations of Order No. R9-2015-0002 that were identified between July 2015 and April 2021 are listed in section 2.4 of Attachment F of the Tentative Order. In addition, chronic toxicity test results which resulted in a “fail” or percent effect greater than 10 percent at the in-stream waste concentration (IWC) are listed in Table F-16 in Attachment F of the Tentative Order. (See response to comment 1.15.)

No changes were made to the Tentative Order as a result of this comment.

1.3. **Comment – Review Calculations for Accuracy (Table F-15 of Attachment F)**

Please review lbs/day calculations for accuracy.

Response

The mass emission rate calculations in Table F-15 of the Tentative Order have been reviewed and are accurate. No changes were made to the Tentative Order as a result of this comment.

1.4. **Comment – Review Language (Page F-72 of Attachment F)**

The monitoring frequency for bis(2-ethylhexyl)phthalate has already been reduced to twice per year in Table E-3 (page E-12) with no qualifier of “after four consecutive months of results of non-detect to twice per year”. Please consider clarifying the language.

Response

Attachment F, section 7.1.2 of the Tentative Order discusses the changes in effluent monitoring from the previous Order, Order R9-2015-0002. The previous Order required that bis(2-ethylhexyl)phthalate be monitored once per month with

the option to reduce the frequency to twice per year after four consecutive months of non-detect. The Tentative Order does not require monthly monitoring for bis(2-ethylhexyl)phthalate with the option to reduce to twice per year. Instead, the Tentative Order requires that bis(2-ethylhexyl)phthalate be monitored twice per year (i.e., removes the qualifier).

Attachment F, section 7.1.2 of the Tentative Order has been modified as shown as a result of this comment:

~~This The previous Order, Order No. R9-2015-0002, required that bis(2-ethylhexyl)phthalate be monitored at monitoring location EFF-001A once per month with the option to reduce the frequency to twice per year after four consecutive months of non-detect. This Order requires bis(2-ethylhexyl)phthalate be monitored twice per year at monitoring location EFF-001A. reduces the monitoring frequency for bis(2-ethylhexyl)phthalate at monitoring location EFF-001A from once per month with the option to reduce to twice per year after four consecutive months of results of non-detect to twice per year.~~

1.5. **Comment – Revise Effluent Limitations for Zinc (Table 2)**

Padre Dam requests that proposed limits in Tentative Order No. R9-2022-0003 for zinc be reevaluated and revised to retain the existing limits established within Order No. R9- 2015-0002 (as amended). The limits proposed within Table 2 (and Table F-11 of Attachment F) are based on a series of compounding “worst case” values, including:

- a “worst case” observed receiving water concentration,
- a “worst case” maximum effluent concentration which occurred on an occasion that is not representative of typical treatment operations,
- and zero dilution.

If the Padre Dam discharge were to be influencing downstream water quality, considerable degree of dilution would occur. As a result, the existing zinc limits established in Order No. R9-2015-0002 (as amended) are protective for ensuring compliance with both the California Toxics Rule (CTR) CCC (4-day continuous) and CMC (instantaneous maximum) standards. Implementation of the proposed 54 micrograms per liter ($\mu\text{g/L}$) zinc monthly average standard is overly protective. Further, compliance with this standard may be unattainable: based on data from 2015 to 2021, the proposed 54 $\mu\text{g/L}$ limit would be attainable only 70% of the time during the permit cycle, thus setting up Padre Dam for non-compliance. Compliance with the proposed 54 $\mu\text{g/L}$ limit would require reverse osmosis treatment of all discharged recycled water, potentially affecting the feasibility and viability of Padre Dam’s Santee Lakes operations which have an operating history of more than a half century.

Response

Effluent limitations for zinc and other priority toxic pollutants were calculated using the procedure outlined in the State Water Resources Control Board (State Water Board) *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). Pursuant to steps 3 and 4 of section 1.3 of the SIP, an effluent limitation is required for a pollutant if the maximum effluent concentration of the pollutant or the maximum observed background or receiving water concentration of the pollutant exceeds the lowest applicable water quality criterion. Based on the 90th percentile receiving water hardness value, the lowest applicable water quality criterion calculated for zinc was 86 µg/L. Even if the highest effluent zinc concentration of 652 µg/L was excluded, an effluent limitation would still be required for zinc because the effluent zinc concentration exceeded 86 µg/L on two other occasions with reported values of 109 µg/L and 87 µg/L on May 5, 2020 and August 6, 2019, respectively.

The San Diego Water Board acknowledges that State of California regulations and implementation policies regarding establishing effluent limitations for zinc and other priority pollutants have not changed since adoption of the existing Order (Order No. R9-2015-0002). However, upon review of the effluent limitations for zinc established in the existing Order, it appears that there was an error in the calculations and the effluent limitations included were higher than those that should have been established if the method described in section 1.4 of the SIP was accurately followed. Effluent limitations for zinc and other priority pollutants included in the Tentative Order were calculated using the statistical procedure outlined in section 1.4 of the SIP. The magnitude of the effluent limitation calculated is based on the coefficient of variation which is based on the standard deviation and mean of the dataset. As a result, the San Diego Water Board has limited flexibility on the magnitude of the effluent limitations that can be established for zinc.

The San Diego Water Board may grant mixing zones and dilution credits to dischargers on a pollutant-by-pollutant basis to account for receiving water dilution in accordance with the provisions of the SIP (Section 3.3 of Attachment F of the Tentative Order). The allowance of mixing zones is discretionary and determined on a discharge-by-discharge basis based on technical information submitted by the discharger to assist in establishing how much (if any) receiving water is available to dilute the discharge. Padre Dam did not request dilution credit or include a dilution analysis in its Report of Waste Discharge/permit application. As a result, no mixing zone/dilution credit was granted in the Tentative Order. Moreover, dilution that can be achieved in Sycamore Creek is expected to be minimal since Sycamore Creek is dry for large portions of the year. Accordingly, the Tentative Order requires compliance with the zinc effluent limitation at monitoring location, EFF-001A, prior to discharge into Santee Lakes.

Effluent data collected between July 2015 and April 2021 shows that the Discharger would only have been able to achieve compliance with the effluent

limitations calculated for zinc about 70 percent of the time. As a result, the San Diego Water Board is also considering adoption of a Tentative Time Schedule Order (TSO) with interim effluent limitations for zinc for adoption at the upcoming February 12, 2022 San Diego Water Board Meeting. The interim effluent limitations in the Tentative TSO are set at existing effluent limitations for zinc in the previous Order (Order No. R9-2015-0002). The Tentative TSO includes a schedule with due dates for the Discharger to complete design and construction of any required treatment facilities and control measures necessary to achieve compliance with final effluent limitations for zinc in the Order.

No change have been made to the Tentative Order as a result of this comment.

1.6. **Comment – Move Compliance Point for Methyl tert-butyl ether (MTBE) Effluent Limitations (Table 2)**

Padre Dam requests that MTBE limitations be applied to EFF-001B and not EFF-001A.

Response

MTBE is a regulated drinking water contaminant with an established primary Maximum Contaminant Level (MCL) for drinking water at 13 µg/L and a Secondary MCL at 5 µg/L established for water quality aesthetic properties such as taste and odor. The maximum and secondary MCLs for MTBE are incorporated as water quality objectives in the San Diego Water Board's *Water Quality Control Plan for the San Diego Basin* (Basin Plan) for waters designated for municipal, military, or domestic water supply systems (MUN) beneficial use. The most prevalent use of MTBE was as a gasoline additive, designed for more efficient fuel combustion thus to improve overall air quality. By the mid-1990s MTBE became identified as a significant groundwater contaminant due to its high solubility, mobility, and high resistance to biological degradation. Underground storage tank or piping releases make up the majority of MTBE releases that have impacted groundwater. California has prohibited the use of MTBE in gasoline as of January 1, 2004. If not managed properly, MTBE can cause significant adverse impacts to current and future beneficial uses of ground and surface water.

Based on these considerations, the Tentative Order retains the compliance point for MTBE at EFF-001A to ensure protection of the municipal and domestic supply beneficial use of groundwater underlying Santee Lakes and Sycamore Creek in the event seepage from Santee Lakes or Sycamore Creek interacts with groundwater. Thus, the compliance point for MTBE at EFF-001A is more protective of water quality. The San Diego Water Board, however, will consider adoption of a Tentative TSO with interim effluent limitations for MTBE since Padre Dam may not be able to achieve immediate compliance with MTBE effluent limitations (See response to comment 1.5.) The interim effluent limitation for MTBE in the Tentative TSO has been set at 40 µg/L, the maximum reported effluent MTBE concentration between July 2015 and April 2021. The Tentative TSO also includes a schedule with due dates for the Discharger to complete

design and construction of any required treatment facilities and control measures necessary to achieve compliance with final effluent limitations for MTBE contained in the Tentative Order.

No changes were made to the Tentative Order as a result of this comment.

1.7. **Comment – Submittal of Performance Goal Exceedance Report (Section 4.1.3)**

Padre Dam requests the following language modification to the latter part of 4.1.3 to request extension of the proposed Performance Goal Exceedance Report (PGER) submittal schedule:

Any two consecutive exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring events, the Discharger shall submit a written ~~correspondence Performance Goal Exceedance Report~~ to the San Diego Water Board within 30 days of the Discharger becoming aware of the third successive exceedance. Their written correspondence shall outline the investigative steps being taken, whether outside technical expertise is being retained to assist in the investigation, and the proposed schedule for completing a Performance Goal Exceedance Report that shall include a description of the nature of the exceedance(s), the results of the investigation including the cause of the exceedance(s), the corrective actions taken, any proposed corrective measures, and a timetable for implementation, if necessary. The San Diego Water Board may reopen this Order to include effluent limitations for parameters that exceed performance goals.

Response

The following sections of the Tentative Order have been modified as a result of this comment:

Section 4.1.3 of the Tentative Order:

Any two consecutive exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring events, the Discharger shall submit a ~~written~~ Performance Goal Exceedance ~~Report~~ Investigation Work Plan to the San Diego Water Board within 30 days of the Discharger becoming aware of the third successive exceedance. The Performance Goal Exceedance Investigation Work Plan shall outline the investigative steps being taken, whether outside technical expertise is being retained to assist in the investigation, and the proposed schedule for completing a Performance Goal Exceedance Report. The Performance Goal Exceedance Report shall include a description of the nature of the exceedance(s), the results of the investigation including the cause of the exceedance(s), the corrective actions taken, any proposed corrective measures, and a ~~timetable~~ schedule for implementation, if necessary. The San Diego Water Board may reopen this Order to include effluent limitations for parameters that exceed performance goals.

Attachment E, section 7.4, Table E-9 of the Tentative Order:

Table E-9. Other Reports

Report	Location of requirement	Due Date
ROWD (for reissuance)	Page 1 of the Order	No later than 180 days before the Order expiration date ¹
Performance Goal Exceedance Report <u>Investigation Work Plan</u>	Section 4.1.3	30 days after the third successive exceedance of a performance goal
<u>Performance Goal Exceedance Report</u>	<u>Section 4.1.3</u>	<u>As specified in the Performance Goal Exceedance Investigation Work Plan</u>

Attachment F, section 4.3.6 of the Tentative Order:

If the exceedance persists in three successive monitoring events, the Discharger is required submit a written Performance Goal Exceedance ~~Report~~ Investigation Work Plan to the San Diego Water Board within 30 days of the Discharger becoming aware of the third successive exceedance. The Performance Goal Exceedance Investigation Work Plan is required to outline the investigative steps being taken, whether outside technical expertise is being retained to assist in the investigation, and the proposed schedule for completing a Performance Goal Exceedance Report. The Performance Goal Exceedance Report is required to include a description of ~~on~~ the nature of the exceedance(s), the results of the investigation as to the cause of the exceedance(s), and the corrective actions taken, ~~or any~~ proposed corrective measures, ~~and with timetable a schedule~~ for implementation, if necessary. Repeated exceedances of performance goals may prompt the San Diego Water Board to reopen and amend the permit to replace performance goals for constituents of concern with effluent limitations, or the San Diego Water Board may coordinate such actions with the next permit renewal. Order No. R9-2015-0002 established performance goals at Monitoring Location EFF-001A. The performance goals established in this Order are listed in Table F15.

1.8. Comment – Clarification of Permit Reopener Requirement (Section 6.3.1.3)

Padre Dam requests clarification to the reopener requirement associated with from Southern California Coastal Water Research Project (SCCWRP) monitoring recommendations. A reopening of the Order based on outside entity recommendations (i.e., implement SCCWRP research projects) should occur only if supported by both the Regional Water Board and Padre Dam.

Response

Any recommendations to modify the monitoring and reporting program of the Order from SCCWRP or other entities will only be implemented if they are supported by the San Diego Water Board. Prior to the San Diego Water Board making any modifications to the monitoring and reporting program of the Order,

the San Diego Water Board will discuss the proposed modifications with Padre Dam. Additionally, any proposed amendments to the monitoring and reporting program of the Order will be released for a 30-day public comment period and considered by the San Diego Water Board for adoption at a public hearing. Padre Dam will have ample opportunity and sufficient time to review and comment on any proposed modifications to the monitoring and reporting program of the Order.

No changes were made to the Tentative Order as a result of this comment.

1.9. Comment – Overflow Reporting (Section 5.5.1 of Attachment D)

Padre Dam requests confirmation that Provision 5.5.1 does not change current overflow reporting procedures. Presently, overflows in the collection system are reported by Padre Dam personnel working in Field Operations with certification from the Director of Operations.

Response

Provision 5.5.1 in Attachment D of the Tentative Order does not change sanitary sewer overflow reporting procedures established in State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, including monitoring and reporting requirements as amended by State Water Board Order No. WQ 2013-0058-EXEC, and San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

No changes were made to the Tentative Order as a result of this comment.

1.10. Comment – Reduce Chlorine Testing Frequency (Table E-3 of Attachment E)

Padre Dam requests reduced testing frequency for chlorine residual as daily tests for the last 5 years have been ND (non-detected).

Response

The San Diego Water Board disagrees that the frequency for total residual chlorine should be reduced. Daily monitoring for total residual chlorine is consistent with other National Pollutant Discharge Elimination System (NPDES) permits in the San Diego Region for facilities that chlorinate their effluent to ensure bacterial water quality objectives in the receiving water are met and that the public health is protected. Daily monitoring for total residual chlorine ensures proper operation of the Facility's dechlorination processes. Failure to maintain proper dechlorination could result in significant impacts to aquatic life, designated beneficial uses, and water quality.

No changes were made to the Tentative Order as a result of this comment.

1.11. Comment – Retain Monitoring Language from Previous Permit (Footnote to Table E-6 of Attachment E)

Padre Dam requests that language in current permit be retained, as follows:

“If no discharge occurred from Discharge Point No. 001 as monitored at Monitoring Location EFF-001B between the last sampling event for this parameter and the end of the monitoring period for this parameter, the Discharger is not required to monitor for this parameter during that monitoring period.”

Response

The language referenced above by Padre Dam was retained as Footnote 1 of Table E-6 of Attachment E. No changes were made to the Tentative Order as a result of this comment.

1.12. Comment – Species Sensitivity Screening (Section 3.3.7 of Attachment E)

Padre Dam requests that language be modified to reflect language in the previous permit:

If the first suite of rescreening tests demonstrates that the same species is the most sensitive then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

Response

Attachment E, section 3.3.7 of the Tentative Order requires species sensitivity screenings once per quarter for a period of one year. Species sensitivity screenings spread out over a year ensures that the process accounts for variations in the types and amounts of toxicants that may be introduced into an effluent. The characteristics of the influent may change over the course of the year depending on the use of different products such as cleansers, pet shampoos, pharmaceuticals, and other consumer products. Changes in temperature and rainfall may impact biological or industrial processes which could influence the type of toxicants in an effluent. Therefore, a species sensitivity screening spread out over a year accounts for a range of environmental and biological conditions. The proposed species sensitivity screening requirements are also consistent with the species sensitivity screening requirements contained in section IV.B.2.b of the State Water Board’s *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California* (ISWEBE Plan) adopted on December 1, 2020.

No changes were made to the Tentative Order as a result of this comment.

1.13. Comment – Retain Toxicity Reduction Evaluation Trigger Requirements from Previous Permit (Section 3.3.9 of Attachment E)

Padre Dam requests that the following Toxicity Reduction Evaluation (TRE) Trigger requirements within the existing permit (page E-12 of R9-2015-0002, as amended) be retained:

Accelerated Monitoring Schedule for Median Monthly Summary Result: “Fail”; and Accelerated Monitoring Schedule for Maximum Daily Single Result: “Fail and % Effect \geq 50”:

When there is discharge more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge of only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted. Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 48 hours for the Ceriodaphnia dubia test, and within 5 calendar days for both the Pimephales promelas and Selenastrum capricornutum tests. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in “Pass”, the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in “Fail”, the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results (“Pass” or “Fail”, “Percent Effect”) for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

Response

Attachment E, section 3.3.9 of the Tentative Order includes a requirement to submit an Initial Investigation TRE Work Plan and is consistent with Attachment E, section III.C.6 of the previous Order (Order No. R9-2015-0002). The TRE Trigger requirements contained in Attachment E, section 3.3.10 of the Tentative Order, have changed from the previous Order (Order No. R9-2015-0002). The Tentative Order proposes to require Padre Dam to implement a TRE if there is any combination of two or more MDEL or Median Monthly Effluent Limitation (MMEL) violations within a calendar month or two successive calendar months. Two or more MDEL or MMEL violations within a calendar month or two successive calendar months demonstrates that the discharge is consistently exceeding the chronic toxicity effluent limitations and a TRE is necessary to determine and address the cause(s) of the toxicity, thereby ensuring the protection of aquatic life and beneficial uses. The TRE Trigger requirement is also consistent with section

IV.B.2.h of the ISWEBE Plan.

No changes were made to the Tentative Order as a result of this comment.

1.14. Comment – Reduce Chlorine Residual Testing Frequency (Section 4.3.2.8 of Attachment F)

Padre Dam requests reduced testing frequency for Chlorine residual as all daily tests for the last 5 years have been ND (non-detected).

Response

See response to Comment 1.10. No changes were made to the Tentative Order as a result of this comment.

1.15. Comment – Chronic Toxicity Results/Reasonable Potential Analysis (Table F-16 of Attachment F)

These are individual results and do not reflect follow-up testing and overall compliance.

Response

Attachment F, section 4.3.7.2 of the Tentative Order which precedes Table F-16 of the Tentative Order has been modified as shown as a result of this comment:

~~Pursuant to section IV.B.2.c of the ISWEBE Plan, a RPA for chronic toxicity is required to be conducted for all non-storm water NPDES discharges except for POTWs dischargers that are authorized to discharge at a rate greater than 5.0 MGD and are required to have a pretreatment program by the terms of 40 CFR part 403.8 (a). Since the discharge has a maximum permitted flow of 2.0 MGD, a RPA was required for chronic toxicity for the discharge. Effluent limitations were included in this Order for chronic toxicity because it was determined that the discharge has reasonable potential to cause or contribute to an exceedance of chronic toxicity WQOs. A discharge is determined to have reasonable potential to cause or contribute to an exceedance of chronic toxicity WQOs specified in section III.B.2.a of the ISWEBE Plan if any of the chronic toxicity tests result in a "fail" at the IWC, or if any chronic toxicity tests have a percent effect greater at the IWC greater than 10 percent.~~

To determine the need for a chronic toxicity effluent limit, the San Diego Water Board conducted a Reasonable Potential Analysis (RPA). In conducting the RPA, the San Diego Water Board considered and evaluated all chronic toxicity data generated during the previous permit term. It is appropriate to evaluate all chronic toxicity data generated during the previous permit term because that data is representative of the actual effluent quality from the treatment system. Reasonable potential exists if any of the chronic toxicity tests results in a "fail" or if the perfect effect at the in-stream waste concentration is greater than 10 percent.

Chronic toxicity tests conducted between July 2015 and April 2021, and listed in Table F-16, were evaluated in conducting the RPA. Table F-16 lists chronic toxicity test results between July 2015 and April 2021 that either resulted in a "fail"

or a percent effect greater than 10 percent at the IWC. These chronic toxicity test results were used to conclude that the discharge has reasonable potential to cause or contribute to an exceedance of chronic toxicity objectives and that the discharge is subject to chronic toxicity effluent limitations. While several of the individual chronic toxicity test results listed in Table F-16 were not in violation of chronic toxicity effluent limitations established in Order No. R9-2015-0002, the chronic toxicity test results showed a reasonable potential to cause or contribute to an exceedance of water quality objectives based on the above-described criteria. Thus, an effluent limit for chronic toxicity was included in the Order.

1.16. Comment – Units for Bacteria Analysis (Global Comment)

Bacteria limit units throughout the document should be consistent for allowing most probable number (MPN) in lieu of colony forming units (CFU).

Response

The Tentative Order allows Padre Dam to report bacteria concentrations in MPN in lieu of CFU. (See footnote 7 of Table E-3 of Attachment E, footnote 3 of Table E-4 of Attachment E, and footnotes 4 of Tables E-6 and E-7 of Attachment E)

No changes were made to the Tentative Order as a result of this comment.

1.17 Comment – Compliance Schedule for Mercury (Table 6 of Tentative Order)

Padre Dam requested via email on January 12, 2022 that the San Diego Water Board modify several of the compliance schedule due dates in Table 6 of the Tentative Order. Modifications to the compliance schedule due dates were requested to accommodate for anticipated delays in delivery of materials and equipment that may be caused by the COVID-19 pandemic. The revised due dates proposed by Padre Dam for Table 6 of the Tentative Order are shown:

Table 6. Compliance Schedule Tasks and Due Dates

Task	Compliance Date
Submit a workplan identifying proposed facilities or control measures necessary to achieve compliance with final effluent limitations for MTBE and zinc listed in Order No. R9-2022-0003 (and Table 1 above).	June 1, 2022
Complete 60 percent design of any required facilities and control measures.	September 1, 2022

Task	Compliance Date
Start construction of required facilities.	April 1, 2023
Complete 100 percent design of any required facilities and control measures.	September 1, 2023
Complete 30 percent of construction of required facilities.	April 1, 2024
Complete 60 percent of construction of required facilities.	March 30, 2025
Complete 100 percent of construction of required facilities.	March 29, 2026
Begin testing of facilities.	August 28, 2026
Complete startup, commissioning, and testing of facilities.	April 1, 2027
Start operation of facilities and achieve consistent compliance with final effluent limitations for MTBE and zinc in Order No. R9-2022-0003.	May 1, 2027

Response

The San Diego Water Board agrees that the requested modifications to the compliance schedule due dates are reasonable. As a result, the following sections of the Tentative Order have been modified as shown:

Table 2 of the Tentative Order:

Notes for Table 2

9. The effluent limitations listed for mercury are interim limitations. Final annual average effluent limitations of 0.012 µg/L and 2.00 E-4 lbs/day for mercury will

become effective ~~after December 31, 2026~~ as described in section 6.3.7 of this Order.

Table 6 of the Tentative Order:

Table 6. Compliance Schedule Tasks and Due Dates

Task	Compliance Date
Submit a workplan identifying proposed facilities or control measures necessary to achieve compliance with annual average effluent limitations of 0.012 µg/L and 2.00 E-04 lbs/day for mercury.	June 1, 2022
Complete 60 percent design of any required facilities and control measures.	September 1, 2022
Start construction of required facilities.	October 31, 2022 <u>April 1, 2023</u>
Complete 100 percent design of any required facilities and control measures.	June 1, 2023 <u>September 1, 2023</u>
Complete 30 percent of construction of required facilities.	October 1, 2023 <u>April 1, 2024</u>
Complete 60 percent of construction of required facilities.	September 30, 2024 <u>March 30, 2025</u>
Complete 100 percent of construction of required facilities.	September 29, 2025 <u>March 29, 2026</u>
Begin testing of facilities.	February 28, 2026 <u>August 28, 2026</u>
Complete startup, commissioning, and testing of facilities.	November 30, 2026 <u>April 1, 2027</u>

Task	Compliance Date
Start operation of facilities.	December 31, 2026 <u>May 1, 2027</u> ¹

Notes for Table 6

1. Final annual average effluent limitations ~~of for mercury are~~ 0.012 µg/L and 2.00 E-04 lbs/day ~~for mercury become effective after December 31, 2026.~~

Attachment F, Table F-11 of the Tentative Order:

Notes for Table F-11

1. The effluent limitations listed for mercury are interim limitations. Final annual average effluent limitations ~~of for mercury are~~ 0.012 µg/L and 2.00 E-4 lbs/day ~~for mercury will become effective after December 31, 2026 as described in section 6.3.7 of this Order.~~

2. Comments from Enthalpy Analytical, LLC.

Enthalpy Analytical, LLC. requested revisions to the Tentative Order as described below:

2.1. Comment – Most Sensitive Species (Section 3.3.2 of Attachment E)

“The test species used for chronic toxicity testing (~~i.e. the most sensitive species~~) shall be ~~green algae, *Selenastrum capricornutum*~~ the most sensitive species”

Rationale Supporting Comment:

The species itself should not be listed in the permit since it might change during species sensitivity screening in the fourth year of the permit. It is preferable to just state that the most sensitive species shall be used and leave out “*Selenastrum capricornutum*”. If needed, Section 3.3.2 can have language acknowledging that due to recent sensitivity screening, the green algae is the current most sensitive species; however, to identify the green algae in sections discussing effluent limits may not be appropriate given the possibility of the species changing during this permit duration. We suggest striking all other instances in the permit where the green algae is identified and associated with being the most sensitive species and add language that makes clear Effluent Limits are associated with test results of the most sensitive species being used for effluent monitoring, whatever that species may be now and in the future. Some sections of the permit (e.g. Page 9, Table 2 Effluent Limitations at Monitoring Location EFF-001A, footnotes 8 and 9) will allow the species to be removed completely and just left as “chronic toxicity”, where others (as identified in Section 3.3.2), will need to have “most sensitive species” inserted in place of the green algae.

Response

The following sections of the Tentative Order have been modified as a result of this comment:

Section 4.1.1.1, Table 2, Footnote 6 of the Tentative Order:

6. The Maximum Daily Effluent Limitation is exceeded if a chronic toxicity test using the ~~most sensitive species green alga, *Selenastrum capricornutum*~~, results in a “Fail” at the IWC for any sub-lethal endpoint measured in the test and a ~~“Percent Effect percent-effect” greater than or equal to 50 percent~~ for the survival endpoint or the sub-lethal endpoint if there is no survival endpoint, is greater than or equal to 50 percent.

Section 4.1.1.1, Table 2, Footnote 7 of the Tentative Order:

7. The Median Monthly Effluent Limitation is exceeded when two or more chronic toxicity tests ~~using the most sensitive species green alga, *Selenastrum capricornutum*~~, initiated in a calendar month result in a “Ffail” at the IWC for any endpoint (see section 3.3.3 of Attachment E).

Attachment E, section 3.3.2 of the Tentative Order:

The test species used for chronic toxicity testing ~~(i.e. the most sensitive species)~~ shall be the most sensitive species green alga, *Selenastrum capricornutum*.

Attachment E, section 3.3.3 of the Tentative Order:

For routine chronic toxicity monitoring, the Discharger shall conduct at least one chronic toxicity test using ~~the most sensitive species green alga, *Selenastrum capricornutum*~~, each calendar quarter during which there is expected to be at least 15 days of discharge.

2.2. **Comment – Routine Chronic Toxicity Monitoring Frequency (Section 3.3.3 of Attachment E)**

Enthalpy Analytical, LLC requests the following revisions to the chronic toxicity monitoring requirements in Attachment E, section 3.3.3 of the Tentative Order:

“For routine chronic toxicity monitoring, the Discharger shall conduct at least one chronic toxicity test using ~~green alga, *Selenastrum capricornutum*~~, **the most sensitive species**, each calendar quarter during which there is expected to be at least 15 days of discharge. ~~The Discharger shall initiate routine chronic toxicity testing on the first Wednesday of January, April, July, and October of each year. The Discharger shall initiate routing chronic toxicity testing within the defined calendar month and quarter (Attachment A, Part 2) where there is sufficient time allowed to perform the necessary MMEL testing within the defined calendar month, should the initial toxicity test result in a “Fail”.~~ If the Discharger is unable to sample ~~on the specified date within the calendar month or calendar quarter~~ due to the availability of test organisms, contract laboratory scheduling issues, or some other reason outside of the Discharger’s control, the Discharger shall immediately notify the San Diego Water

Board in writing. If the San Diego Water Board agrees that the failure to sample within the required month or quarter on the specified day was unavoidable, the San Diego Water Board will specify an alternative sampling window for the monitoring period.”

Rationale Supporting Comment:

Section IV.B.2.d.i. of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Toxicity Provisions or Plan, December 2020), states that “The PERMITTING AUTHORITY shall specify the day of the month that corresponds to the start of a CALENDAR MONTH in the NPDES permit and any applicable Water Code section 13383 Order, for dischargers that are required to conduct ROUTINE MONITORING at a monthly or greater than monthly frequency. For dischargers that are required to conduct ROUTINE MONITORING at a less than monthly frequency, the CALENDAR MONTH begins from the initiation of the ROUTINE MONITORING test. The PERMITTING AUTHORITY shall specify the day and the month that correspond to the start of each CALENDAR QUARTER and the start of the CALENDAR YEAR in the NPDES permit and any applicable Water Code section 13383 Order.”

Based on discussions with State Board staff, Enthalpy staff interprets the intent of this section is to allow dischargers and contract laboratories more flexibility to successfully schedule and complete the routine monitoring requirements, and if necessary, Monthly Median Effluent Limitation (MMEL) testing, not that it was meant to dictate the specific month and date in which toxicity testing is required to start. We acknowledge that the Regional Board must define the temporal window which constitutes the calendar month for the purposes of MMEL compliance, but recommend that the month in which the monitoring begins within the quarter (given that this discharger has a quarterly chronic toxicity monitoring requirement) and the day within that calendar month which the testing begins, not be defined in the permit.

While we recognize the next section of the Plan states, “The PERMITTING AUTHORITY may specify the exact dates or time period in which any required aquatic toxicity test shall be initiated within an applicable monitoring period (e.g., a requirement to initiate a test within five days of the start of the CALENDAR QUARTER, a requirement to initiate a test between the 10th and the 15th of each CALENDAR MONTH, etc.)”, we urge the Regional Board not to define the exact date which the sampling and/or testing must occur, but rather adopt language which allows flexibility for when the testing starts, while still suggesting the Discharger begin testing early enough in the calendar month to allow sufficient time to complete MMEL testing, if needed.

Response

The San Diego Water Board agrees that specifying the specific day of the month to initiate chronic toxicity monitoring is unnecessary for Padre Dam. However, the

MMEL compliance testing should still be completed within the defined calendar quarter. The following section of the Tentative Order has been modified as a result of this comment:

Attachment E, section 3.3.3 of the Tentative Order:

For routine chronic toxicity monitoring, the Discharger shall conduct at least one chronic toxicity test using the most sensitive species green alga, ~~Selenastrum capricornutum~~, each calendar quarter during which there is expected to be at least 15 days of discharge. ~~The Discharger shall initiate routine chronic toxicity testing on the first Wednesday of January, April, July, and October of each year. If the Discharger is unable to sample on the specified date due to the availability of test organisms, contract laboratory scheduling issues, or some other reason outside of the Discharger's control, the Discharger shall immediately notify the San Diego Water Board in writing. If the San Diego Water Board agrees that the failure to sample on the specified day was unavoidable, the San Diego Water Board will specify an alternative sampling date for the monitoring period.~~ For the purposes of chronic toxicity, the calendar quarter starts on January 1, April 1, July 1, and October 1 of each year, and the calendar month starts at from the initiation of routine monitoring. The Discharger shall ensure there is sufficient time to perform the Median Monthly Effluent Limitation (MMEL) compliance testing within the defined calendar month and calendar quarter, should the initial toxicity test result in a "Fail". If the Discharger is unable to sample within the calendar month or calendar quarter due to the availability of test organisms, contract laboratory scheduling issues, or some other reason outside of the Discharger's control, the Discharger shall immediately notify the San Diego Water Board in writing. If the San Diego Water Board agrees that the failure to sample within the calendar month or calendar quarter was unavoidable, the San Diego Water Board will specify an alternative sampling window for the monitoring period.

The Discharger may request to reduce the monitoring frequency from once per calendar quarter to once per six months if all of the following conditions are met: 1) the toxicity requirements in this Order have been followed; and 2) there were no violations of the ~~Median Monthly Effluent Limitation (MMEL)~~ or Maximum Daily Effluent Limitation (MDEL) for chronic toxicity within the last five years. If a chronic toxicity test results in a "Fail" at the IWC during reduced monitoring, the frequency is automatically increased back to once per quarter for a period of five years.

2.3. Comment – Quality Assurance (QA) and Additional Requirements (Section 3.3.8.1.1 of Attachment E)

"The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a toxicity test during routine monitoring results in "Fail" in accordance with the Test of Significant Toxicity (TST) approach and the "Percent Effect" is greater than or equal to 50 percent for the survival endpoint or the sub-lethal endpoint if there is no survival endpoint."

Rationale Supporting Comment:

There appears to be an inconsistency in language which defines a violation of the MDEL between Section 3.3.8.1.1 and Section 7.15. Chronic Toxicity (page 40) in which the permit states “The MDEL for chronic toxicity is exceeded when a chronic toxicity test, analyzed using the TST statistical approach, results in “Fail” for the sub-lethal endpoint and the “Percent Effect” is ≥ 0.50 for the lethal endpoint or the sub-lethal endpoint if there is no lethal endpoint.”

Section 3.3.8.1.1. makes no mention of the “Fail” for the secondary endpoint. We recognize that functionally, it is unlikely that there would be a 50% effect to survival that does not result in a “Fail” for the secondary endpoint, however we suggest aligning the language in these sections to read the same for clarities sake.

Response

The following sections of the Tentative Order have been modified as a result of this comment:

Section 7.15 of the Tentative Order:

The MDEL for chronic toxicity is exceeded when a chronic toxicity test, analyzed using the TST statistical approach, results in “Fail” for the sub-lethal endpoint and the “Percent Effect” is ≥ 0.50 for the survival lethal endpoint or the sub-lethal endpoint if there is no survival lethal endpoint.

Attachment E, section 3.3.8.1.1 of the Tentative Order:

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a toxicity test during routine monitoring results in “Fail” for the sub-lethal endpoint in accordance with the TST approach and the “Percent Effect” is greater than or equal to 50 percent for the survival endpoint or the sub-lethal endpoint if there is no survival endpoint.

Attachment E, section 3.3.8.1.2 of the Tentative Order:

The MMEL for chronic toxicity is exceeded and a violation will be flagged when two or more toxicity tests in a calendar month result in a “Fail” in accordance with the TST approach for any endpoint.

2.4. Comment – Approved Tests for Chronic Toxicity (Table E-5 of Attachment E)

“Test Acceptability Criteria (TAC) for Green Alga: Mean cell density of at least 1×10^6 ~~10⁶~~ cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20% (Table 3 of the test method)”.

Response

Correction made.

3. Comment from John Odermatt

I look forward to 2025: “The new WRF and AWP Facility are expected to the

operational in the summer of 2025. The Discharge plans to submit a new ROWD at least 180 days prior to operation and discharge from the new WRF and AWP.” Such a waste to keep sending wastewater to Pt. Loma for “marginal” treatment under the waiver and discharge into the ocean.

Response

The issue addressed by the comment is largely outside the scope and purpose of the Tentative Order which is to regulate Padre Dam’s wastewater discharge into Santee Lakes and the periodic overflow and discharge of the treated wastewater from the Lakes into Sycamore Creek. The Tentative Order does not include specific provisions requiring a report or plan for Padre Dam to reduce discharges to the City of San Diego’s Point Loma Ocean Outfall and consideration of including such a provision(s) in the Tentative Order cannot be considered at this time.

As briefly referenced in the comment, in approximately 2025, Padre Dam, the Helix Water District, the City of El Cajon, and the County of San Diego (collectively known as East County partners) are proposing to implement the East County Advanced Water Purification (AWP) Program. The AWP Program has the goal of producing up to 30 percent of East County’s potable supply through an indirect potable reuse reservoir augmentation project referred to as the AWP Project. The East County AWP Program will produce about 11.5 million gallons per day (MGD) of highly treated recycled water on an annual average basis and convey it for discharge into Lake Jennings to augment drinking water supplies. San Diego Water Board staff routinely participate in discussions with the East County Partners on the technical aspects of the AWP Project and the proposed permitting of the Project is a top priority of the San Diego Water Board,

For information on Padre Dam’s efforts to reduce wastewater flows to the Point Loma Ocean Outfall through the East County AWP Program, visit the East County AWP Program website at: <https://eastcountyawp.com/>

The Basin Plan does recognize that water recycling should be carefully considered by persons proposing to discharge substantial quantities of once-used wastewater to the ocean particularly in a water short area where water is imported. (Basin Plan, Ch. 4, p. 4-79.) It has long been a policy of the San Diego Water Board to encourage and promote water recycling while taking into consideration the need to protect beneficial uses of surface and ground waters and protect the public health. As a future initiative in keeping with this policy and the Basin Plan, the San Diego Water Board may consider requiring persons proposing a discharge of once-used wastewater into the ocean to 1) carefully analyze as an alternative, or partial alternative, the feasibility of recycling the wastewater for a beneficial use in lieu of ocean disposal and to 2) include the analysis in the report of waste discharge permit application.

No changes were made to the Tentative Order as a result of this comment.