

**REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**EXECUTIVE OFFICER SUMMARY REPORT
February 9, 2022**

ITEM 5

SUBJECT

NPDES Permit Reissuance: Padre Dam Municipal Water District, Ray Stoyer Water Recycling Facility Discharge to Sycamore Creek, San Diego County (Tentative Order No. R9-2022-0003, NPDES No. CA0107492). (*Fisayo Osibodu and Keith Yaeger*)

STAFF RECOMMENDATION

Adoption of Tentative Order No. R9-2022-0003 (Tentative Order; **Supporting Document No. 1**) is recommended.

KEY ISSUES

1. Significant changes between the Tentative Order and the current Order, Order No. R9-2015-0002, are described in the Significant Changes section of this Executive Officer Summary Report.
2. Padre Dam cannot immediately comply at all times with effluent limitations for zinc and methyl tert-butyl ether (MTBE) in the Tentative Order. Item 6 on today's agenda is the proposed adoption of a Tentative Time Schedule Order (Tentative TSO) that will establish interim effluent limitations for zinc and MTBE, a compliance schedule requiring a series of actions to be undertaken by Padre Dam to achieve compliance with the final effluent limitations for zinc and MTBE in the Tentative Order, and conditional provisions indicating Padre Dam will not be subject to mandatory minimum penalties in the interim as long as compliance with the TSO is maintained.

PRACTICAL VISION

Padre Dam has been effectively recycling its wastewater for over fifty years. Tertiary treated wastewater from Padre Dam's Ray Stoyer Water Recycling Facility (Ray Stoyer WRF) is currently used to maintain water levels in Santee Lakes, or is delivered to recycled water customers, who primarily use it for landscape irrigation. Padre Dam plans to implement the East County Advanced Water Purification Program. As part of the East County Advanced Water Purification Program, Padre Dam and its partners are constructing a new Water Recycling Facility and a new Advanced Water Purification Plant to produce highly treated recycled water which will be used to augment Lake Jennings, a water supply reservoir located in Lakeside, California. The East County Advanced Water Purification Program will create a new, reliable, locally controlled source of potable water. Padre Dam's existing recycled water program and the East County Advanced Water Purification Program are consistent with the goals of the *Strategize to Achieve a Resilient Local Water Supply* chapter of the Practical Vision.

The Tentative Order regulates the discharge of Padre Dam's tertiary treated wastewater into Santee Lakes and the periodic overflow of the lakes into Sycamore Creek, a tributary of the San Diego River. The Santee Lakes are extensively used by the public for recreational activities, including boating and fishing. Consistent with the mission of the

Strategize for Healthy Waters chapter of the Practical Vision, the Tentative Order integrates all applicable technology-based requirements, water quality-based effluent limitations, and receiving water quality standards to optimize protection of public health for recreational activities within Santee Lakes as well as water quality and beneficial uses of Sycamore Creek. Additionally, the Tentative Order has provisions allowing for participation in regional monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of a Regional Monitoring Framework*.

DISCUSSION

Padre Dam owns and operates the Ray Stoyer WRF which is designed to treat up to 2 million gallons per day (MGD) of raw wastewater to tertiary treatment standards prescribed in Title 22 of the California Code of Regulations. The Ray Stoyer WRF treats wastewater from residences and commercial establishments within the City of Santee, the City of El Cajon, and the unincorporated community of Lakeside (See **Supporting Document No. 2**, location map.)

Tertiary treated wastewater produced from the Ray Stoyer WRF is discharged to Santee Lakes, a recreational park consisting of seven lakes that ultimately overflow to Sycamore Creek, a tributary of the San Diego River. The Ray Stoyer WRF and Santee Lakes are considered part of the wastewater treatment system. The discharge from the Ray Stoyer WRF through Santee Lakes to Sycamore Creek is currently regulated by Order No. R9-2015-0002. Recycled water from the Ray Stoyer WRF is also delivered to reuse sites within the Santee Hydrologic Subarea (907.12) and the El Cajon Hydrologic Subarea (907.13) under separate waste discharge requirements.

The Tentative Order, if adopted, will supersede the current Order and reissue the NPDES permit for Padre Dam's discharge to Sycamore Creek for a five-year term. The Tentative Order was developed based on information in Padre Dam's reissuance application, self-monitoring reports, and other available sources (e.g. inspection reports, meetings, and emails with Padre Dam).

The Tentative Order was noticed for a public hearing and released for public review and comment on October 15, 2021. The public comment period closed on November 15, 2021. The San Diego Water Board received comment letters from Padre Dam (**Supporting Document No. 3**) and Enthalpy Analytical, LLC. (**Supporting Document No. 4**) regarding the Tentative Order during the comment period, as well as a comment from John Odermatt, a private citizen (**Supporting Document No. 5**). Padre Dam also submitted additional comments on the Tentative Order via email on January 12, 2022 (Supporting Document No. 6) The Response to Comments Report (**Supporting Document No. 7**) contains the San Diego Water Board's responses to all comments received and when applicable describes actions taken to revise the Tentative Order in response to the comments. A copy of the Response to Comments Report and the Revised Tentative Order were provided to Padre Dam.

The following is a summary of the most significant comments received and the responses to those comments:

1. *Padre Dam requested that the proposed effluent limitations for zinc in the Tentative Order be reevaluated and revised, and that existing effluent limitations for zinc be retained. Padre Dam asserts that the effluent limitations for zinc are based on a series of compounding worst case scenarios not representative of discharge conditions, and that compliance with the proposed average monthly effluent limitation of 54 µg/L for zinc would require reverse osmosis treatment of all discharged recycled water, potentially affecting the feasibility and viability of Padre Dam's Santee Lakes operations.*

Based on section 1.3 of the State Water Board *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP), an effluent limitation is required for a priority toxic pollutant when 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. Effluent limitations were established for zinc in the Tentative Order because the maximum effluent concentration for zinc exceeded the lowest water quality criterion on 3 occasions over the previous permit term. In addition, the effluent limitations for zinc were appropriately calculated using the procedure outlined in section 1.4 of the SIP.

The San Diego Water Board acknowledges that Padre Dam may not be able to achieve immediate compliance with the effluent limitations for zinc in the Tentative Order. As a result, the San Diego Water Board will also consider adoption of a Tentative TSO which includes interim effluent limitations for zinc and a time schedule for attaining compliance with the final effluent limitations in the Tentative Order. The interim effluent limitations in the Tentative TSO have been set at existing effluent limitations for zinc contained in the current Order. The Tentative TSO includes a schedule with due dates for Padre Dam 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 Tentative Order. The Tentative TSO is scheduled to be considered for adoption in Item 6 on today's board meeting agenda.

2. *Padre Dam requested that the compliance point for measuring compliance with the effluent limitations for MTBE be moved from the end of the treatment plant (monitoring location EFF-001A) to the discharge point from Santee Lakes to Sycamore Creek (monitoring location EFF-001B).*

MTBE is a regulated drinking water contaminant with established Maximum Contaminant Levels (MCLs). The MCLs for MTBE are incorporated into the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) as water quality objectives for waters designated for municipal and domestic supply such as groundwater within the Santee Hydrologic Subarea. The Tentative Order effluent limitations for MTBE are set at levels in conformance with the Basin Plan MTBE water quality objectives. The monitoring point for demonstrating compliance with

MTBE effluent limitations is being retained at monitoring location EFF-001A. This will help 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. Analysis of Padre Dam's effluent data did not demonstrate immediate and consistent compliance with effluent limitations for MTBE in the Tentative Order. As a result, a Tentative TSO is proposed for Board consideration in Item 6 on today's agenda. The Tentative TSO will establish interim effluent limitations for MTBE and a compliance schedule requiring a series of actions to be undertaken by Padre Dam to achieve compliance with the final effluent limitations for MTBE in the Tentative Order.

The Revised Tentative Order (**Supporting Document No. 1**) displays the changes made after the October 15, 2021 public release in red-underline for added text and ~~red-strikeout~~ for deleted text.

SIGNIFICANT CHANGES

The following are the significant differences between the Tentative Order and the current Order:

1. The Tentative Order establishes new effluent limitations for selenium and cadmium based on results of a reasonable potential analysis.
2. The Tentative Order establishes interim and final effluent limitations for mercury based on results of a reasonable potential analysis. The final effluent limitations for mercury are based on *Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (State Board Mercury Provisions). The Tentative Order includes a schedule for Padre Dam to achieve compliance with the final effluent limitations for mercury.
3. The Tentative Order establishes new effluent limitations for MTBE and zinc based on results of a reasonable potential analysis. Review of effluent data indicates that the discharge from the Ray Stoyer WRF may not be able to immediately achieve compliance with the effluent limitations for MTBE and zinc. In response, the San Diego Water Board will also consider approval of interim effluent limitations for MTBE and zinc through a Tentative TSO. The Tentative TSO would establish a schedule for Padre Dam to complete design and construction of any facilities needed to achieve consistent compliance with final effluent limitations for MTBE and zinc contained in the Tentative Order by December 31, 2026.
4. The Tentative Order includes new effluent and receiving water limitations for enterococci based on *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California-Bacteria Provisions and a Water Quality Standards Variance Policy*.
5. The Tentative Order includes establishes new effluent limitations and monitoring requirements for chronic toxicity based on the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*.

COMPLIANCE RECORD

From July 2015 through April 2021, Padre Dam reported six effluent violations and six deficient monitoring violations. Details of these violations are included in the compliance summary information provided in Supporting Document No.1, Attachment F, section 2.4. To address these violations, the San Diego Water Board issued seven staff enforcement letters.

PUBLIC NOTICE

The Tentative Order was noticed and released for public review and comment on October 15, 2021, with comments due by November 15, 2021. The Notice of Public Hearing and Comment Period was posted on the San Diego Water Board website for the duration of the comment period and sent to all interested parties. The Notice announced a public hearing to be held on February 9, 2022; availability of the Tentative Order for review; and provided instructions for submittal of written comments. A copy of the Notice is provided as **Supporting Document No. 8**. Notice of the public hearing on the Tentative Order was also provided in the Meeting Notice and Agenda for the February 9, 2022 San Diego Water Board meeting, which is posted on the San Diego Water Board website.

SUPPORTING DOCUMENTS

1. Revised Tentative Order
2. Location Map
3. Comment Letter from Padre Dam, November 15, 2021
4. Comment Letter from Enthalpy Analytical, LLC., November 13, 2021
5. Comment from John Odermatt, October 16, 2021
6. Email from Padre Dam with Additional Comments, January 12, 2022
7. Response to Comments Report
8. Notice of Public Hearing