

EXECUTIVE OFFICER SUMMARY REPORT  
April 11, 2018

- ITEM: 9
- SUBJECT: NPDES Permit Reissuance: City of Escondido, Hale Avenue Resource Recovery Facility and Membrane Filtration/Reverse Osmosis Facility Discharge to the Pacific Ocean through the San Elijo Ocean Outfall (Tentative Order No. R9-2018-0002, NPDES No. CA0107981). (*Joann Lim*)
- PURPOSE: To receive public testimony and consider adoption of Tentative Order No. R9-2018-0002 (Tentative Order) (**Supporting Document No. 1**).
- RECOMMENDATION: Adoption of the Tentative Order with proposed revisions is recommended.
- KEY ISSUES:
1. The Tentative Order allows for the discharge of brine waste from a new Membrane Filtration/Reverse Osmosis (MFRO) Facility. Once constructed, the MFRO Facility will produce up to 2 million gallons per day (MGD) of recycled water for agricultural use. An average monthly flow of 0.7 MGD of brine waste from the MFRO Facility will be discharged to the San Elijo Ocean Outfall (SEOO).
  2. The Tentative Order requires the City of Escondido (City or Discharger) to re-evaluate the minimum initial dilution factor ( $D_m$ ) for the SEOO in light of the brine waste discharge from the MFRO Facility.<sup>1</sup>
  3. The Tentative Order includes a requirement to investigate alternatives for tracking the movement of the SEOO wastewater plume and its potential encroachment on shoreline water contact recreational areas. The question of where the SEOO plume is going also has a regional component for determining when and where multiple plumes comeingle. The San Diego Water Board plans to include a similar requirement in the upcoming

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<sup>1</sup> The minimum initial dilution factor, expressed as parts seawater per part wastewater, is used in the calculation of effluent limitations to account for the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

reissuance of NPDES permits for the Encina Ocean Outfall and the Oceanside Ocean Outfall, with the ultimate goal of using the findings from these studies to develop a unified regional monitoring program for all three ocean outfalls.

**PRACTICAL VISION:** Consistent with the mission of the *Strategy 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 in order to optimize protection of water quality and beneficial uses in the Pacific Ocean. The Tentative Order incorporates brine discharges from the MFRO Facility production of recycled water, which is advancing the State's water recycling goals consistent with the *Strategy for a Sustainable Local Water Supply* chapter of the Practical Vision. 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:** The City owns and operates the Hale Avenue Resource Recovery Facility (HARRF), a publicly-owned treatment works (POTWs) located in Escondido, California. The HARRF treats domestic and industrial wastewater flows from the City and the Rancho Bernardo area of the City of San Diego.

The HARRF provides secondary treatment to a design flow of 18 MGD and tertiary treatment to a design flow of 9 MGD. The tertiary-treated recycled water is used at reuse sites such as the San Diego Gas and Electric Palomar Energy Center, Kit Carson Park, Reidy Creek Golf Course, and Vineyard Golf Course. The production and use of tertiary-treated recycled water is regulated under separate waste discharge requirements (WDRs). The portion of the effluent not reused is discharged to the 14-mile long Escondido Land Outfall (ELO) and conveyed to the SEOO near San Elijo Lagoon. The effluent is then discharged 1.5 miles out into the Pacific Ocean through the SEOO.

The City plans to expand the use of recycled water in their service area by constructing the new MFRO Facility to produce higher quality recycled water for use on salt-sensitive agricultural crops such as avocados and citrus. Brine discharges from the MFRO Facility will be sent to the

Pacific Ocean through the ELO, which connects to the SEOO. See **Supporting Document No. 2** for a map of the HARRF and the MFRO Facility.

To protect a pressure-restricted section of the SEOO from rupture, flows through the ELO are regulated through a flow control station. In addition to the HARRF and the MFRO Facility, Stone Brewing Co. and Palomar Energy Center also discharge into the ELO and the SEOO. The Tentative Order limits the total combined flow from these facilities to 18 MGD. In addition to these discharges, effluent from the San Elijo Joint Powers Authority (SEJPA), San Elijo Water Reclamation Facility, is also discharged through the SEOO to the Pacific Ocean. The reissuance of the NPDES permit for the San Elijo Water Reclamation Facility discharge to the SEOO is also being considered by the San Diego Water Board at today's meeting under Agenda Item 8<sup>2</sup>. The SEOO is co-owned by the City of Escondido and the SEJPA.

Discharges from the HARRF to the SEOO are currently regulated by Order No. R9-2010-0086 (NPDES Permit No. CA0107981). The Tentative Order will, if adopted, supersede Order No. R9-2010-0086. The Tentative Order was developed based on information in the City's reissuance application, self-monitoring reports, and other available sources (e.g. HARRF inspection reports).

The Tentative Order was noticed and released for public review and comment for a 30-day period on January 27, 2018. The public comment period closed on February 26, 2018. The California Department of Fish and Wildlife submitted a comment email dated February 5, 2018 (**Supporting Document No. 3**). The City and the SEJPA submitted a joint comment letter dated February 26, 2018 (**Supporting Document No. 4**). The Response to Comments Report (**Supporting Document No. 5**) includes detailed responses to the comments on the Tentative Order and any actions taken to modify the Tentative Order in response to comments.

Below is a summary of the most significant comments and the responses to those comments:

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<sup>2</sup> San Diego Water Board, Item No. 8, Tentative Order No. R9-2018-0003, NPDES No. CA0107999, *Waste Discharge Requirements for the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility Discharge to the Pacific Ocean through the San Elijo Ocean Outfall*

1. *The Discharger requested that the Tentative Order establish a performance goal rather than an effluent limitation for chronic toxicity.*

Applicable USEPA regulations and the implementation provisions of the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) require that the Tentative Order include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. The San Diego Water Board determined that reasonable potential is demonstrated for chronic toxicity levels in the HARRF and MFRO Facility effluent given the possibility of synergistic or additive toxic effects of known and unknown pollutant mixtures in the effluent on the receiving waters. Accordingly, the San Diego Water Board has maintained the effluent limitations for chronic toxicity in the Tentative Order.

2. *The Discharger requested that the Tentative Order be revised to acknowledge that the San Elijo Lagoon Restoration Project (Project) dredged material disposal operations may have a significant impact on receiving water quality and sediments in the vicinity of the SEOO.*

The San Diego Water Board revised the Fact Sheet of the Tentative Order in Attachment F section VII.B.3 to reflect the significance of the dredged material disposal operations. The deposition of dredged material from the Project dredging operations have a limited potential to produce degraded benthic community conditions that are not related to pollutants discharged from the SEOO. To further reduce the potential for physical stressors to the benthic community from the dredging operations, the Tentative Order allows the Discharger to conduct receiving water sediment monitoring anytime within the permit term, with the results due at least 180 days before the permit expires. The Discharger may also propose to temporarily redirect sediment monitoring efforts during dredged material disposal operations to participate in other regional monitoring efforts

pursuant to Attachment E section V.B of the Tentative Order.

3. *The Discharger requested some modifications to the Plume Tracking Study requirement of the Tentative Order.*

The San Diego Water Board revised the Plume Tracking Study requirement in Attachment E section VI.C of the Tentative Order to address some of the requested modifications such as modifying some terms (e.g. replacing “map” with “assess”), adding more details (e.g. “such as storm water and outflows from the San Elijo Lagoon”), and adding more questions to be addressed by the study (e.g. What parameters are most useful for assessing the presence of a wastewater plume?). The San Diego Water Board disagreed with other requested modifications such as using terms inconsistent with the Tentative Order (e.g. modifying “monitoring locations” to “receiving water station locations”) and limiting the scope of the questions (e.g. limiting the plume tracking program to surf zone recreational areas).

4. *The City asserted that the MFRO Facility does not need a sufficient alternate power source because it is a scalping facility.*

The San Diego Water Board has maintained the requirement for an alternate power source for the MFRO Facility. The MFRO Facility is part of a Compliance Schedule<sup>3</sup> to reduce flows to the ELO during wet weather and to terminate wet weather discharges to Escondido Creek. Thus, the MFRO Facility is a critical facility during wet-weather events requiring an alternative power source.

The Revised Tentative Order (Supporting Document No. 1) displays the changes made after the January 27, 2018 public release in red-underline for added text and ~~red~~ ~~strikeout~~ for deleted text.

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<sup>3</sup> Time Schedule Order No. R9-2015-0027, *Requiring the City of Escondido Hale Avenue Resource Recovery Facility to comply with Requirements Prescribed in Order No. R9-2015-0026, NPDES Permit No. CA0108944.*

LEGAL CONCERNS: None

SUPPORTING  
DOCUMENTS:

1. Revised Tentative Order
2. Location Map
3. Comment email from the California Department of Fish and Wildlife, dated February 5, 2018
4. Comment letter from the City of Escondido and San Elijo Joint Powers Authority, dated February 26, 2018
5. Response to Comments Report

COMPLIANCE  
RECORD

According to the Discharger's self-monitoring reports, there were three noncompliance incidents during the term of the previous Order, Order No. R9-2010-0086, between November 2010 and November 2017. These noncompliance incidents are generally classified as follows:

- 2 deficient monitoring violations in January and February, 2011, *and*
- 1 effluent violation for settleable solids in April, 2016.

Staff enforcement letters were sent to the Discharger requiring that steps be taken to correct and prevent the reoccurrence of such violations. There were no monetary penalties issued for these violations.

PUBLIC NOTICE:

The Tentative Order was noticed and released for public review and comment on January 27, 2018, with comments due February 26, 2018. The San Diego Water Board published a Notice of Public Hearing in the San Diego Union Tribune newspaper on January 27, 2018, which announced the April 11, 2018 public hearing and availability of the Tentative Order, and provided instructions on submittal of comments on the Tentative Order. Notice of the April public hearing on the Tentative Order was also provided in the Meeting Notice and Agenda for the April 11, 2018 San Diego Water Board meeting, which was posted on the San Diego Water Board website. Notice of the availability of the Tentative Order for public review and comment was also sent to all known interested parties by email on January 26, 2018 and posted on the San Diego Water Board website.