

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

**EXECUTIVE OFFICER SUMMARY REPORT  
December 8, 2021**

**ITEM NO. 11**

**SUBJECT**

Consideration of Tentative Order No. R9-2021-0100, *Waste Discharge and Water Reclamation Requirements for the City of Oceanside, Advanced Water Purification Facility, Indirect Potable Reuse for Groundwater Recharge, San Diego County* (Tentative Order No. R9-2021-0100). (Brandon Bushnell)

**STAFF RECOMMENDATION**

Adoption of Tentative Order No. R9-2021-0100 (**Supporting Document 1**), as amended by Errata Sheet to Tentative Order No. R9-2021-0100 (**Supporting Document 2**), is recommended.

**KEY ISSUES**

1. Tentative Order No. R9-2021-0100 establishes waste discharge requirements (WDRs) and water recycling requirements (WRRs) for the City of Oceanside (Discharger) to inject 3.0 million gallons per day (MGD) of advanced treated recycled water into the groundwater of the Mission Hydrologic Sub Area of the San Luis Rey Hydrologic Unit (Mission Groundwater Basin) for indirect potable reuse. An additional 1.5 MGD of advanced treated recycled water will be produced and comingled with tertiary treated non-potable recycled water to be used for agricultural irrigation. Tentative Order No. R9-2021-0100, if adopted, will be the first order issued for an indirect potable reuse via groundwater recharge project in the California Regional Water Quality Control Board, San Diego Region's (San Diego Water Board) jurisdiction.
2. Tentative Order No. R9-2021-0100 includes requirements for the Discharger to monitor effluent for constituents of emerging concern (CEC) and report the volume of advanced treated recycled water produced. These requirements are consistent with the State Water Resources Control Board (State Water Board) *Water Quality Control Policy for Recycled Water* (Recycled Water Policy).<sup>1</sup> Tentative Order No. R9-2021-0100 also includes WRRs based on recommendations from the State Water Board's Division of Drinking Water (DDW) for the protection of public health. San Diego Water Board staff coordinated with State Water Board staff to include specific requirements for indirect potable reuse from the Recycled Water Policy and Title 22

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<sup>1</sup> Recycled Water Policy:

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2018/121118\\_7\\_final\\_amendment\\_oal.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf)

of the California Code of Regulations (Title 22)<sup>2</sup> into Tentative Order No. R9-2021-0100.

3. Tentative Order No. R9-2020-0100 furthers the human right to water, declared in California Water Code (Water Code) section 106.3.<sup>3</sup> Treating wastewater for indirect potable reuse, such as the project permitted by Tentative Order No. R9-2020-0100, increases local water supply, reduces the volume of wastewater discharged to the ocean, and is an important part of a sustainable resilient water portfolio.

## **PRACTICAL VISION**

Adoption of Tentative Order No. R9-2021-0100 is consistent with the goals of the *Strategize to Achieve Resilient Local Water Supply* chapter of the *San Diego Water Board Practical Vision* (Practical Vision)<sup>4</sup> to permit indirect potable reuse projects. The use of sustainable water supply sources helps reduce the San Diego Region's dependence on imported water and increases the reliability of local water supplies. Tentative Order No. R9-2021-0100 is also consistent with the *Strategize for Healthy Waters* chapter of the Practical Vision as Tentative Order No. R9-2021-0100 integrates all applicable public health and water quality requirements to optimize protection of water quality and beneficial uses of the Mission Groundwater Basin.

## **DISCUSSION**

The purpose of this item is to provide the San Diego Water Board with information to assist in its consideration of Tentative Order No. R9-2021-0100. If adopted, Tentative Order No. R9-2021-0100 establishes WDRs and WRRs for the Discharger's Advanced Water Purification Facility (Facility) to inject 3.0 MGD of advanced treated recycled water into the Mission Groundwater Basin for indirect potable reuse. Tentative Order No. R9-2021-0100 includes discharge specifications and effluent limitations based on Title 22 maximum contaminant levels and water quality objectives established in the San Diego Water Board's *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan)<sup>5</sup> for the protection of municipal and domestic supply beneficial uses.

The Discharger is responsible for providing customers with potable water, non-potable recycled water treatment and delivery services, and wastewater collection and

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<sup>2</sup> Title 22, regulations related to recycled water:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/lawbook/rwregulations.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/lawbook/rwregulations.pdf)

<sup>3</sup> Water Code section 106.3:

[https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=WAT&sectionNum=106.3](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=WAT&sectionNum=106.3)

<sup>4</sup> Practical Vision:

[https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/practical\\_vision/](https://www.waterboards.ca.gov/sandiego/water_issues/programs/practical_vision/)

<sup>5</sup> Basin Plan:

[https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/docs/R9\\_Basin\\_Plan.pdf](https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/R9_Basin_Plan.pdf)

treatment. The Discharger owns and operates the San Luis Rey Water Reclamation Facility (SLRWRF) for wastewater treatment and non-potable recycled water production. The Facility is part of and within the larger SLRWRF. The SLRWRF is located at 3950 North River Road in the City of Oceanside (**Supporting Document 3.A**). The Discharger constructed the Facility to further treat secondary treated wastewater from the SLRWRF and inject the advanced treated recycled water into the aquifer to replenish the groundwater in the Mission Groundwater Basin for indirect potable reuse. The injected advanced treated recycled water will supplement natural groundwater recharge into the Mission Groundwater Basin.

The Facility will produce 4.5 MGD of advanced treated recycled water. The Facility's advanced treatment process consists of ultrafiltration (UF), reverse osmosis (RO), ultraviolet-advanced oxidation process (AOP), post treatment stabilization, and free chlorine disinfection. The use of UF, RO, and AOP in series has been proven to be reliable treatment process in removing CECs and other known contaminants in wastewater. Tentative Order No. R9-2021-0100 regulates the discharge of 3.0 MGD of advanced treated recycled water through three injection wells into the Mission Groundwater Basin (**Supporting Document 3.B**).

The Discharger currently extracts groundwater from the Mission Groundwater Basin through six downgradient production wells located approximately 0.5 to 1.1 miles downgradient of the closest injection well (**Supporting Document 3.B**). The extracted groundwater is pumped to the Discharger's Mission Basin Groundwater Purification Facility, where the potable water is treated and distributed to the Discharger's customers. The extraction, treatment, and distribution of groundwater as a potable water supply is not regulated under Tentative Order No. R9-2021-0100.

The Discharger will establish an ordinance prohibiting the construction of new drinking water wells and controlling the use of existing irrigation wells in proximity to the advanced treated recycled water injection wells (i.e., Primary Boundary Area). The Laguna Vista Mobile Estates owns and operates an irrigation well (non-potable) located in the Primary Boundary Area (**Supporting Document 3.C**). The Laguna Vista Mobile Estates landscape and impoundment areas irrigated by this well will be designated as non-potable reuse sites, which requires posting of recycled water signage and periodic inspection by the Discharger. The use of the groundwater at Laguna Vista Mobile Estates will not change, and can still be used for irrigation. The well was not used for potable supply and will now be restricted to non-potable uses. The San Diego Water Board regulates the purveyance and beneficial use of non-potable recycled water, including the use of groundwater within the Primary Boundary Area at the Laguna Vista Mobile Estates, under State Water Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* (Order WQ 2016-0068-DDW).

The Discharger submitted the May 19, 2020, *City of Oceanside's Pure Water Oceanside Report of Waste Discharge* (ROWD) and the May 19, 2020, *City of Oceanside Pure Water Oceanside Title 22 Engineering Report* (Engineering Report). The ROWD and Engineering Report describe the Facility's advanced treatment processes and groundwater recharge operations.

The San Diego Water Board developed the requirements in Tentative Order No. R9-2021-0100 based on information submitted in the Engineering Report and the ROWD, water quality control plans, policies, and other available information. San Diego Water Board staff prepared Tentative Order No. R9-2021-0100 in accordance with Water Code sections 13263, 13267, and 13523. Tentative Order No. R9-2021-0100 will serve as WDRs and WRRs issued pursuant to article 4, chapter 4, division 7 of the Water Code.

The San Diego Water Board will continue to regulate the production of non-potable recycled water produced at the SLRWRF under Order No. 93-07, *Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant City of Oceanside San Diego County* as amended by *Addendum No. 1 to Order No. 93-07, Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant, City of Oceanside, San Diego County* (collectively Order No. 93-07).

The Discharger currently sends secondary treated wastewater from the SLRWRF and the RO concentrate from the Mission Basin Groundwater Purification Facility, to the Pacific Ocean via the Oceanside Ocean Outfall (OOO). The San Diego Water Board regulates the City of Oceanside's discharges to the OOO under National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R9-2019-0166, as amended by Order No. R9-2020-0190, NPDES No. CA0107433, *Waste Discharge Requirements for the City of Oceanside San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharge to the Pacific Ocean through the Oceanside Ocean Outfall* (Order No. R9-2020-0190). The San Diego Water Board NPDES staff prepared an amendment to Order No. R9-2020-0190, if adopted, the amendment would authorize the discharge of the RO concentrate from the Facility to the OOO.

The Discharger will also comingle the additional 1.5 MGD of advanced treated recycled water with tertiary treated recycled water from the SLRWRF for agricultural irrigation. The Discharger's distribution and use of the comingled recycled water will be regulated under Order WQ 2016-0068-DDW.

San Diego Water Board staff provided the Discharger with an administrative draft of Tentative Order No. R9-2021-0100 on September 1, 2021, for review and comment. Board staff also released Tentative Order No. R9-2021-0100 on September 13, 2021, for a 30-day public review and comment period. The Board received one comment letter from the Discharger on October 14, 2021 (**Supporting Document 4**). Board staff prepared a response to comments document (**Supporting Document 5**) and incorporated the accepted revisions into Tentative Order No. R9-2021-0100, which are reflected in the errata sheet (**Supporting Document 2**). The errata sheet also includes changes to the CEC monitoring requirements that are consistent with the Recycled Water Policy and reflect the modified recommendations in DDW's *Corrected – Conditional Acceptance Letter for the City of Oceanside Pure Water Oceanside Project Engineering Report*, dated September 29, 2021.

## **PUBLIC NOTICE**

San Diego Water Board staff sent notification of this action to the Discharger and known interested parties on September 13, 2021. Additionally, San Diego Water Board staff posted Tentative Order No. R9-2021-0100 (**Supporting Document 1**), the transmittal letter (**Supporting Document 6**), and Notice of Public Hearing and Comment Period (**Supporting Document 7**) on the San Diego Water Board website on September 13, 2021. These actions satisfy the 30-day public notification and comment requirements of Water Code section 13167.5.

## **SUPPORTING DOCUMENTS**

1. Tentative Order No. R9-2021-0100
2. Errata Sheet to Tentative Order No. R9-2021-0100
3. Vicinity and Facility Maps
  - A. Advanced Water Purification Facility Vicinity Map
  - B. City of Oceanside's Injection and Production Wells Map
  - C. Laguna Vista Mobile Estates Vicinity Map
4. City of Oceanside's Comment Letter
5. Response to Comments
6. Tentative Order No. R9-2021-0100 Transmittal Letter
7. Notice of Public Hearing and Comment Period