

EXECUTIVE OFFICER SUMMARY REPORT  
May 9, 2018

ITEM: 11

SUBJECT: Master Recycling Permit: United States Marine Corps Base Camp Pendleton, Southern Regional Tertiary Treatment Plant, San Diego County. Tentative Order No. R9-2018-0023 (*Alex Cali*)

PURPOSE: To consider adopting Tentative Order No. R9-2018-0023 (Tentative Order, Supporting Document No. 1).

RECOMMENDATION: Adoption of Tentative Order No. R9-2018-0023 is recommended.

KEY ISSUE: The Tentative Order, if adopted, will allow Marine Corps Base Camp Pendleton (MCBCP) to inject recycled water into the lower aquifer of the Lower Ysidora groundwater basin, creating a hydrologic seawater intrusion barrier. The seawater intrusion barrier is intended to protect MCBCP's potable groundwater resources located upgradient in the Santa Margarita River watershed.

PRACTICAL VISION: The Tentative Order is consistent with the Sustainable Local Water Supply chapter of the Practical Vision<sup>1</sup>. Continuing potable water conservation efforts are increasing regional uses of recycled water, as envisioned by the *Recycled Water Policy*.<sup>2</sup>

DISCUSSION: To protect its groundwater supply wells in the lower Santa Margarita River aquifer, the United States Marine Corps (USMC) proposed to implement a seawater intrusion barrier project recommended in the Salt and Nutrient Management Plan for the Lower Santa Margarita River Watershed (SNMP).<sup>3</sup> The project includes the injection of recycled water, treated to disinfected tertiary standards, from the SRTTP into the lower aquifer of the Lower Ysidora

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<sup>1</sup> Practical Vision: [http://www.waterboards.ca.gov/sandiego/water\\_issues/Practical\\_Vision/index.shtml](http://www.waterboards.ca.gov/sandiego/water_issues/Practical_Vision/index.shtml)

<sup>2</sup> Recycled Water Policy: [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2013/rs2013\\_0003\\_a.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003_a.pdf)

<sup>3</sup> Salt and Nutrient Management Plan, Southern MCB Camp Pendleton, dated November 8, 2012.

groundwater basin to create a hydrologic seawater intrusion barrier. This project consists of pumping recycled water into two reservoirs and sixteen injection wells located in the Ysidora Flats area (Supporting Document No. 1, page A-1). The injection well system is designed to prevent seawater intrusion from impacting the drinking water aquifer in the Chappo Subbasin and improve groundwater quality in the Ysidora Basin. The USMC provided a technical demonstration that vertical migration of recycled water into surface water will not occur. The local geology is comprised of interbedded fine-grained strata that creates a protective semi-confining aquitard system, which separates the lower aquifer and the shallow aquifer. The USMC proposes to reuse up to 870 acre-feet of recycled water per year to create the seawater intrusion barrier.

The Tentative Order replaces Order No. R9-2009-0021, *Master Reclamation Permit for Southern Region Tertiary Treatment Plant, United States Marine Corps, Camp Pendleton, San Diego County*, and addenda. Order No. R9-2009-0021 established requirements for the SRTTP's production and purveyance of disinfected tertiary recycled water for reuse at irrigation sites located at MCBP. Under the Tentative Order, recycled water will continue to serve the existing irrigation sites at Camp Pendleton and excess recycled water will be pumped into the existing injection wells located at Red Beach (Supporting Document No. 1, page A-2). The Red Beach wells are currently used to dispose of treated wastewater from Sewage Treatment Plant (STP) No. 9 under Order No. 98-04, *Waste Discharge Requirements for United States Marine Corps Base Camp Pendleton, California, Sewage Treatment Plant No. 9 (Las Pulgas), San Diego County*. Eventually, the USMC plans to transfer the wastewater stream from STP No. 9 to the SRTTP for treatment and increase the amount of wastewater available for use as recycled water.

## LEGAL CONCERNS:

None.

## SUPPORTING DOCUMENTS:

1. Tentative Order No. R9-2018-0023
2. Map Showing Location of Facility
3. Transmittal Letter for Tentative Order No. R9-2018-0023
4. Notice of Public Hearing and Comment Period

## SIGNIFICANT CHANGES:

1. The Tentative Order permits the injection of recycled water into the lower aquifer of the Lower Ysidora

Basin to create a hydrologic seawater intrusion barrier.

2. The Tentative Order raises the effluent discharge specification for total nitrogen from 5 to 10 mg/L, establishes discharge specifications for TDS, chloride, and sulfate at their respective groundwater quality objectives for the Ysidora Hydrologic Area, and allows the sodium hazard risk to be assessed through evaluation of the adjusted sodium adsorption ratio.

3. The Tentative Order adds the Red Beach disposal area to the Master Recycling Permit.

4. The Tentative Order requires MCBCP to add the requirements of the *Recycled Water Policy* to its Rules and Regulations for Recycled Water Use.

COMPLIANCE  
RECORD:

In the last five years there have been 25 violations of Order R9-2009-0021 and its addenda. Seventeen of the violations were regarding deficient monitoring and Water Board staff has discussed these issues with the USMC. The remaining violations were for exceedances of discharge specifications for chlorine contact time (1), total coliform (2), total dissolved solids (TDS, 2), and percent sodium (3). The Tentative Order allows MCBCP to assess the sodium threat with the adjusted sodium adsorption ratio. The use of this ratio allows MCBCP to demonstrate that the sodium in the recycled water used for irrigation is not a threat to groundwater. This change is expected to allow the SRTTP to achieve consistent compliance with the Basin Plan with regards to the threat from the sodium concentration in irrigation water.

PUBLIC NOTICE:

Notification of this action was sent to known interested parties by mail on March 23, 2018 (Supporting Documents No. 4). The Tentative Order was also posted on the San Diego Water Board website on March 23, 2018. These actions satisfy the public notification requirements of Water Code, division 7, section 13167.5 for a 30-day notice.