

EXECUTIVE OFFICER SUMMARY REPORT  
June 26, 2014

- ITEM: 5
- SUBJECT: Master Reclamation Permit Revision: An Addendum to Incorporate Requirements for Recycled Water Use at New Reuse Sites and Modifying Discharge Specifications for Several Chemical Constituents, Master Reclamation Permit for Southern Regional Tertiary Treatment Plant, United States Marine Corps, Camp Pendleton, San Diego County (Tentative Addendum No. 1 to Order No. R9-2009-0021).  
*(Alex Cali and Fisayo Osibodu)*
- PURPOSE: To consider adopting Tentative Addendum No. 1 to Order No. R9-2009-0021 (Supporting Document No. 1).
- RECOMMENDATION: Adoption of Tentative Addendum No. 1 to Order No. R9-2009-0021 (Tentative Addendum) is recommended.
- KEY ISSUES:
1. Changes the daily maximum discharge specifications for chloride, sulfate, percent sodium, iron, manganese, methylene blue active substance, boron, color, and fluoride to twelve month average discharge specifications will reduce potential violations of the Order without adversely affecting groundwater quality.
  2. The Tentative Addendum allows for increased use of recycled water on the U.S. Marine Corps Base Camp Pendleton (Base), which is consistent with the goals of the State Recycled Water Policy.<sup>1</sup>
- PRACTICAL VISION: The Tentative Addendum supports Chapter 5 of the Practical Vision,<sup>2</sup> Strategy for Achieving a Sustainable Local Water Supply, because it allows for increased use of recycled water produced from the Southern Region Tertiary Treatment Plant (SRTTP). The beneficial reuse of recycled water from SRTTP will aid the U.S. Marine Corps' (USMC) water conservation efforts and will allow for increased use of

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<sup>1</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>2</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)

recycled water as envisioned by the State Recycled Water Policy.

**SIGNIFICANT  
CHANGES:**

The Tentative Addendum makes the following changes to Order No. R9-2009-0021:

1. Increases the flow limitation from 5.0 to 7.5 million gallons per day (mgd).
2. Changes the daily maximum discharge specifications established for chloride, sulfate, percent sodium, iron, manganese, methylene blue active substance, boron, color, total nitrogen and fluoride to twelve month average discharge specifications.
3. Adds reporting requirements for adding new use sites and cross connection testing requirements.
4. Allows discharge to new landscape irrigation sites, and specifies new uses for recycled water produced from the SRTTP (such as dual-plumbed and construction type uses).

**DISCUSSION:**

The SRTTP provides secondary and tertiary treatment of domestic wastewater generated on the southern portion of the Base (Supporting Document No. 2). The USMC is expanding the treatment capacity of the SRTTP from 5.0 to 7.5 mgd. The Tentative Addendum is needed in order to allow a discharge of up to 7.5 mgd from the SRTTP.

The USMC plans to add new landscape irrigation sites and to distribute recycled water to dual-plumbed facilities at the Base, where recycled water will be used for toilet and urinal flushing. The USMC has constructed a permanent recycled water fill station to serve trucks that will transport recycled water for on-base construction purposes (such as dust suppression, soil compaction, and concrete mixing). Lastly, recycled water will be used for in-plant uses such as cleaning of equipment and hydrostatic testing of treatment plant components.

Since 2010, the USMC has had 30 violations of various daily maximum discharge specifications in the Order. To reduce potential violations of the Order, the Tentative Addendum changes the daily maximum discharge specifications established for chloride, sulfate, percent sodium, iron,

manganese, methylene blue active substance, boron, color, and fluoride to twelve month average discharge specifications.

These changes are appropriate because the annual average discharge specifications are set at levels that support the beneficial uses of the groundwater basins within the Base. Daily fluctuations in the quality of applied recycled water won't affect overall water quality over time as long as annual average discharge specifications are adhered to. In other words, if one day's recycled water has relatively high concentrations of constituents, it must be balanced out by another day with relatively low concentrations to achieve the annual average. An additional safety factor is that the outdoor use sites with few exceptions are located on the mesas adjacent to the Santa Margarita and/or the San Luis Rey Rivers, and do not overlie the alluvial aquifers from which the Base's water supply is produced. Groundwater within the geologic units that form the mesas tends to be of poor quality and not suitable for drinking water purposes. The reuse sites also are relatively long distances from the river and a significant distance from the groundwater aquifer and Base water supply wells.

Pursuant to the State Recycled Water Policy, the USMC submitted a Salt and Nutrient Management Plan (SNMP) to the San Diego Water Board dated November 8, 2012 for the Lower Santa Margarita Groundwater Basin. Salt and nutrient management measures identified in the SNMP include: demineralization of the Base's water supply, landscape irrigation with recycled water, discharging recycled water to create a saltwater intrusion barrier, optimizing surface water diversions for groundwater quality, encouraging actions to reduce upstream salt and nutrient loads, and increasing groundwater monitoring. The increase in flow authorized in the Tentative addendum is key to increasing the production of recycled water for many of the projects identified in the Salt and Nutrient Management Plan.

An information sheet which summarizes the facts and technical analyses relied upon in developing the Tentative Addendum is included as Supporting Document No. 3.

Comments were received from the U.S. Marine Corps and the Department of Public Health (Supporting Document No. 4). The Response to Comment Report is provided in

Supporting Document 5. Changes made to the Tentative Addendum, in response to the comments, are shown in underline and strikeout text in Supporting Document No. 6.

LEGAL CONCERNS:

None.

SUPPORTING DOCUMENTS:

1. Tentative Addendum No. 1 to Order No. R9-2009-0021.
2. Location Map for SRTTP.
3. Information Sheet.
4. Public comments received on Tentative Addendum.
5. Responses to public comments on Tentative Addendum.
6. Modifications to Tentative Addendum in underline/strikeout text.
7. Transmittal Letter for Tentative Addendum.

COMPLIANCE RECORD:

The SRTTP had 30 violations of discharge specifications of Order No. R9-2009-0021 since 2010. These violations included sixteen chloride exceedances, five percent sodium exceedances, three manganese exceedances, three color exceedances, two total nitrogen exceedances, and one total dissolved solids exceedance.

The USMC provides descriptions of implemented corrective actions in each self-monitoring report during reporting periods that had violations.

PUBLIC NOTICE:

Notification of this action (Supporting Document No. 7) was posted on the San Diego Water Board web page on April 29, 2014. This action satisfies the public notification requirements of California Water Code, division 7 section 13167.5 for a 30-day notice.