

ITEM 6, SUPPORTING DOCUMENT NO. 4 - RESPONSE TO COMMENTS

TENTATIVE ORDER NO. R9-2016-0183

MASTER RECYCLING PERMIT FOR THE CARLSBAD MUNICIPAL WATER DISTRICT, CARLSBAD WATER RECYCLING FACILITY SAN DIEGO COUNTY

The San Diego Water Board has the following responses to the Carlsbad Municipal Water District's (CMWD or Discharger) letter dated November 16, 2016:

Table 1: Responses to City's Comments

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|---|--|---|
| 1. | Table 3 of Attachment D, Monitoring and Reporting Program | To avoid confusion associated with modifying sampling and monitoring protocols in mid-week for the final 17 days of calendar year 2016, CMWD requests that the effective date of Order No. R9-2016-0183 be changed from December 14, 2016 to January 1, 2017. With this change, CMWD will implement the monitoring provisions of Order No. R9-2016-0183 at the start of calendar year 2017 | <p>The Order will become effective on December 14, 2016, however, the sections of Attachment D, Monitoring and Reporting Program shown below have been modified to allow monitoring to begin on January 1, 2017:</p> <p>This Monitoring and Reporting Program (MRP) is issued to the Carlsbad Municipal Water District (Discharger) pursuant to Water Code section 13267, which authorizes the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to require the Discharger to furnish technical and monitoring reports. The San Diego Water Board Executive Officer has the authority to modify this MRP as appropriate. <u>Monitoring in accordance with this MRP shall begin on January 1, 2017.</u></p> <p>Section II.A.1 of Attachment D (Monitoring and Reporting Program):</p> <p>Effluent that will be discharged to landscape irrigation sites or reuse sites subject to Water Recycling Criteria</p> |

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|------------------------------------|---|---|
| | | | <p>specified in title 22, shall be monitored downstream from the chlorine contact basin. Required effluent monitoring is shown in Table 1. <u>Required monitoring for constituents specified in Table 1 shall begin on January 1, 2017.</u></p> |
| 2. | Section I.A of the Tentative Order | <p>As documented within the CWRP Report of Waste Discharge, CMWD supplements CWRP recycled water production with the purchase of recycled water from the Vallecitos Water District and Leucadia Wastewater District. Finding No. 9 of Order No. 2001-352 authorizes CMWD to purchase up to 5.0 mgd of recycled water from the Vallecitos Water District Meadowlark Water Reclamation Plant and up to 2.0 mgd of recycled water from the Leucadia Wastewater District (formerly Leucadia County Water District) Gafner Water Reclamation Plant. Consistent with this existing Order, CMWD requests that Finding I.A of Tentative Order R9-2016-0183 (along with supporting text in Attachment C) be modified to ensure that it is clear that Order No. R9-2016-0183 authorizes CMWD to purchase and use recycled water from these agencies. Suggested language for Finding I.A is as follows:</p> <p>I.A. Background. Carlsbad Municipal Water District (hereinafter Discharger) submitted a Report of Waste Discharge (ROWD), dated May 23, 2016, which describes proposed upgrades to expand the capacity of the CWRP from 43 mgd to 7 mgd. Upon adoption, Order No. R9-2016-0183 (Order) will supersede and replace the Discharger’s Master Reclamation Permit¹</p> | <p>Section I.A has been modified as follows:</p> <p>Carlsbad Municipal Water District (hereinafter Discharger) submitted a Report of Waste Discharge (ROWD), dated May 23, 2016, which describes proposed upgrades to expand the capacity of the CWRP from 43 mgd to 7 mgd. Upon adoption, Order No. R9-2016-0183 (Order) will supersede and replace the Discharger’s Master Reclamation Permit¹ except for enforcement purposes. The Order increases the permitted flowrate from 43 mgd to 7 mgd, revises some of the discharge specifications, adds requirements of the State <i>Recycled Water Policy</i>,² and adds requirements for recycled water fill stations.</p> <p><u>The Discharger intends to purchase and use up to 5.0 mgd of recycled water from the Vallecitos Water District Meadowlark Water Reclamation Plant and up to 2.0 mgd of recycled water from the Leucadia Wastewater District Gafner Water Reclamation Plant. Recycled water quality and production at the Meadowlark and Gafner facilities are regulated by separate waste discharge requirements established by the San Diego Water Board. The use of this water within the Discharger’s service area is regulated by this Order.</u></p> |

¹ Order No. R9-2001-352 as amended by Order No. R9-2012-0027, *Master Reclamation Permit with Waste Discharge Requirements for the Production and Purveyance of Recycled Water for Carlsbad Municipal Water District, Carlsbad Water Recycling Facility, San Diego County*

² State Water Board *Recycled Water Policy* (2009 as modified in 2013):

http://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/draft_amendment_to_policy.shtml

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|----------------------------|---|--|
| | | <p>except for enforcement purposes. This Order increases the permitted CWRP flowrate from 43 mgd to 7 mgd, revises some of the discharge specifications, adds requirements of the State Recycled Water Policy² and adds requirements for recycled water fill stations. <u>This Order also retains provisions from the Discharger's Master Reclamation Permit¹ that authorizes the Discharger to purchase and use up to 5.0 mgd of recycled water from the Vallecitos Water District Meadowlark Water Reclamation Plant and up to 2.0 mgd of recycled water from the Leucadia Wastewater District Gafner Water Reclamation Plant. Recycled water quality and production at the Meadowlark and Gafner facilities are regulated by separate waste discharge requirements established by the San Diego Regional Water Board.</u></p> | <p>Section I of Attachment C, Information Sheet, has also been modified as follows:</p> <p>The Order establishes WDRs for the production, distribution, and use of recycled water from the Carlsbad Water Recycling Facility (CWRP), and serves as a Master Recycling Permit. The CWRP has been regulated under Order No. R9-2001-352 <u>as amended by Order No. R9-2012-0027</u>, <i>Master Reclamation Permit with Waste Discharge Requirements for the Production and Purveyance of Recycled Water for Carlsbad Municipal Water District, Carlsbad Water Recycling Facility, San Diego County</i>. The Order is an updated Master Recycling Permit for the CWRP. The Order increases the permitted flowrate from 43 million gallons per day (mgd) to 7mgd, revises some of the discharge specifications, adds requirements of the State <i>Recycled Water Policy</i>,¹ and adds requirements for recycled water fill stations.</p> <p><u>The Discharger intends to purchase and use up to 5.0 mgd of recycled water from the Vallecitos Water District Meadowlark Water Reclamation Plant and up to 2.0 mgd of recycled water from the Leucadia Wastewater District Gafner Water Reclamation Plant. Recycled water quality and production at the Meadowlark and Gafner facilities are regulated by separate waste discharge requirements established by the San Diego Water Board. The use of this water within the Discharger's service area is regulated by this Order.</u></p> |

¹ State Water Board's Recycled Water Policy (2009 as modified in 2013):
http://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/draft_amendment_to_policy.shtml

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|--|---|--|
| | | | |
| 3. | Section VI.C of the Tentative Order (Special Provisions) | <p>Special Provision VI.C (along with supporting text in Attachment D on page D-7) requires CMWD to submit a nitrate study work plan by March 15, 2017, and to submit the results of the nitrate study by December 15, 2017. CMWD may need outside technical assistance to develop the nitrate study work plan and complete the required study. Under CMWD's procurement procedures, it may take two or more months to complete the mandated process of contractor solicitation, contractor selection, contract authorization, and contract review/approval. As a result of this contracting process, it may not be possible to complete the nitrate study work plan within the 90-day window proposed within Tentative Order No. R9-2016-0183. CMWD proposes the following schedule for developing the nitrate study work plan and submitting the completed study:</p> <p>Submit Work Plan: September 15, 2017 March 15, 2017 Submit Nitrate Study: June 15, 2018 December 15, 2017</p> | The requested changes have been made. |
| 4. | Section VI.I of the Tentative Order | In accordance with implementation provisions established within Chapter 4 (page 4-18) of the Basin Plan, Order No. 2001-352 grants an exemption to the 100-year flood protection requirement for recycled water ponds at the North La Costa Golf Course. Tentative Order No. R9-2016-0183 should carry forward this exemption. Consistent with Runoff Protection Requirement D.9 of Order No. 2001-352, CMWD requests that Special Provision VI.I (page | <p>The requested change has been made. Section VI.I of the Tentative Order has been revised as follows:</p> <p>All wastewater and recycled water storage facilities, shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm. <u>The recycled water storage ponds at the North La Costa Golf Course are exempt from this requirement. These ponds shall be operated to</u></p> |

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|---|---|--|
| | | <p>15) be revised as follows:</p> <p>VI.I. All wastewater and recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm. <u>An exemption from this requirement has been granted for the recycled water storage ponds at the North La Costa Golf Course, which shall be operated to prevent discharges of recycled water from the ponds to San Marcos Creek and Batiquitos Lagoon. The measures shall include termination of the discharge to the reservoirs when there is a potential for overflow.</u></p> | <p><u>prevent discharges of recycled water from the ponds to San Marcos Creek and Batiquitos Lagoon. Delivery of recycled water to the ponds shall be terminated at all times when there is a potential for precipitation to cause the ponds to overflow.</u></p> |
| 5. | Table 1 of Attachment D, Monitoring and Reporting Program | <p>Tentative Order No. R9-2016-0183 proposes weekly monitoring for biochemical oxygen demand (BOD). As shown in Attachment C of the Tentative Order, CWRP BOD concentrations are typically on the order of 5 mg/l, and rarely above 10 mg/L. Because of the consistency and low level of historic CWRP BOD concentrations, CMWD requests that the BOD monitoring frequency be established at a monthly frequency, rather than weekly.</p> | <p>No change has been made to the Tentative Order as a result of this comment. Although BOD concentrations have been consistently below 5 mg/L since 2011, weekly monitoring for BOD is required in the Monitoring and Reporting Program because analyzing one sample a month will not provide sufficient data to evaluate compliance with a monthly or 30 day average discharge specification. In addition, the Tentative Order requires quarterly monitoring frequency for iron and manganese, which is a reduction from the monthly monitoring that was required for iron and manganese in Order No. 2001-352 as amended by Order No. R9-2012-0027.</p> |
| 6. | Table 1 of Attachment D, Monitoring and Reporting Program | <p>CMWD assumes that priority pollutants addressed within the Recycled Water Policy and the Tentative Order are as listed in Appendix A to 40 CFR 423, as opposed to the priority pollutants addressed within the California Toxics Rule (40 CFR 131.38.) Clarification on the applicable list of priority pollutants to be monitored should be provided within footnote "f" of Table 1 (page D-5).</p> | <p>Priority pollutants refers to constituents listed in Appendix A to the 40 CFR part 423. Footnote "f" of Table 1 of the Tentative Order has been modified as follows:</p> <p>Priority pollutant monitoring is required by Section 7.b.4 of the State Water Board <i>Recycled Water Policy</i>. <u>Priority pollutants are constituents listed in Appendix A of 40 Code of Federal Regulations part 423.</u></p> |

| No. | Section in Tentative Order | Comment | San Diego Water Board Responses |
|-----|---|---|---|
| 7. | Table 1 of Attachment D, Monitoring and Reporting Program | <p>Tentative Order No. R9-2016-0183 requires annual monitoring of priority pollutants. In lieu of annual reporting of priority pollutants within the CWRFF effluent, CMWD requests that the Order provide CMWD with the option of providing priority pollutant analyses for the CWRFF influent (e.g., effluent from the Encina Wastewater Authority facility). To accomplish this, CMWD requests that a new footnote “g” be added to priority pollutants line within Table 1 (page D-5):</p> <p>⁹ In lieu of annual reporting of priority pollutant concentrations in the CWRFF disinfected tertiary recycled water, consistent with the Recycled Water Policy, the Discharger may at its option provide priority pollutant monitoring results for secondary treated CWRFF influent.</p> | <p>No change has been made to the Order as a result of this comment. Although concentrations of several priority pollutants are expected to decrease through the treatment process, concentrations of some priority pollutants could potentially increase due to chlorine addition during the disinfection process. As a result monitoring the effluent will provide a better characterization of overall recycled water quality. In addition, the requirement for priority pollutant monitoring is based on Section 7.b.4 of the State Water Board <i>Recycled Water Policy</i>. Section 7.b.4 specifies that monitoring for priority pollutants “in the recycled water at the recycled water production facility once per year” and does not specify that influent monitoring can be provided to satisfy the priority pollutant monitoring requirement.</p> |

CMWDs letter dated November 16, 2016 includes a list of requested minor revisions to the Tentative Order. The San Diego Water Board has the following responses in response to the requested minor revisions:

Table 2: Responses to Request for Minor Revisions

| No. | Page Number and Section in Revised Tentative Order | Comment | Change or Response |
|-----|---|--|--|
| 1 | Pages C-3, C-6, C-8 (Attachment C, Information Sheet) | Typo: “El Salto” HSA is misspelled as “El Sato”. | The requested change has been made. |
| 2 | Page 1 (Table 1 of the Tentative Order) | Table 1, Discharger Information. As documented on State of California Form 200 within the CWRFF Report of Waste Discharge, the facility contact should be Wendy Chambers, General Manager, (760) 438-2722. | The requested change has been made. |
| 3. | Page 1 (Table 1 of the Tentative Order) | To avoid confusion regarding Hydrologic Subarea (HSA) boundaries, within Table 2 (page 1), | No change has been made to the Tentative Order as a result of this comment. The Batiquitos HSA |

| No. | Page Number and Section in Revised Tentative Order | Comment | Change or Response |
|-----|---|--|--|
| | and Page C-3 (Attachment C, Information Sheet) | Hydrologic Area 904.5 (San Marcos HA 904.5) be cited instead of the Richland HSA (904.52). (Similar change on page C-3.) | (904.51) and Richland HSA (904.52) are listed in Table 1 of the Tentative Order and in Section II. B of Attachment C (Information Sheet). Both HSAs make up the San Marcos HA. |
| 4. | Page 1 (Section I.A of Tentative Order) and Page C-1 (Attachment C, Information Sheet) | Typo: The capacity of the CWRP addressed in Order No. 2001-0027 is 4 mgd, not 3 mgd. | The requested change has been made. |
| 5. | Pages 3 and 4 (Table 1 of Tentative Order) and Page C-1 (Attachment C, Information Sheet) | Footnote 1 on page 3, text on page 4, and text on page C-1 should reference: Order No. 2001-352 as amended by Order No. R9-2012-0027, Master Reclamation Permit with Waste Discharge Requirements for the Carlsbad Municipal Water District, Carlsbad Water Recycling Facility, San Diego County. | The requested change has been made. |
| 6. | Page 5 (Table 4 of Tentative Order) | Typo: Discharge Specification III.B should refer to Table 4, not Table 5 | The requested change has been made. |
| 7. | Page 5 (Table 4 of Tentative Order) and Page C-9 (Attachment C, Information Sheet) | Typo: Daily maximum values for BOD and TSS should be 45 mg/l, not 30 mg/l. Monthly average values for BOD and TSS should be 30 mg/l, not 45 mg/l. | The requested change has been made. |
| 8 | Page 5 (Table 4 of Tentative Order) and Page C-10 (Attachment C, Information Sheet) | Table 4. The Basin Plan groundwater objective for iron is 0.3 mg/l. To be consistent with the number of significant figures represented within the Basin Plan objective, CMWD requests that the annual average concentration limit for iron be changed from 0.30 to 0.3 mg/l. Same change to Table 5 of Attachment C (page C-10) | The requested change has been made. |
| 9 | Page 6 (Section III.E of Tentative Order) | Typo: "Ultrafiltration" is misspelled within Discharge Specification III.E | The requested change has been made. |
| 10 | Page 8 (Section IV.B.2 of Tentative Order) | IV.B.2. The County DEH shall be notified at least 30 days prior to any cross connection test, <u>or per notification requirements within the Recycled Water</u> | The requested change has been made. |

| No. | Page Number and Section in Revised Tentative Order | Comment | Change or Response |
|-----|---|---|---|
| | | <p><u>Oversight Consent Agreement between Carlsbad Municipal Water District and DEH¹</u>. A written report documenting the result of the inspection testing for the prior year shall be submitted to the County DEH within 30 days following the completion of the inspection or testing, <u>or per notification requirements within the Recycled Water Oversight Consent Agreement between Carlsbad Municipal Water District and DEH.</u></p> | |
| 11 | Page C-3 (Section II.A of Attachment C, Information Sheet) | First sentence of bottom paragraph (II.A). Should state "The existing CWRF has a treatment capacity of 4 mgd ..." | The requested change has been made. |
| 12 | Page C-3 (Section II.A of Attachment C, Information Sheet) | II.A, third paragraphs. Delete size of ultrafiltration strainers as follows: The third treatment train will include a new set of 300-micron pretreatment strainers followed by ultrafiltration treatment. ² | The requested change has been made. |
| 13 | Page C-3 (Section II.A of Attachment C, Information Sheet) | II.A, third paragraph. Average daily production capacity of the UF units will be 3.38 mgd. | The requested change has been made. |
| 14 | Page C-6 (Section III.B of Attachment C, Information Sheet) | Typo: III.B, first sentence "Master" is misspelled; should be Master Recycling Permit. | The requested change has been made. |
| 15 | Page C-5 (Section II.D of Attachment C, Information Sheet) | Typo: Footnote 5 should refer to Order No. 2001-352, as amended by Order No. R9-2012-0027, not Order No. 93-07. | The requested change has been made. |
| 16 | Page C-9 (Section IV.C of Attachment C, Information Sheet) | IIV.C, last paragraph. This Order eliminates the daily maximum and/or 30-day average discharge specifications for TDS, chloride, sulfate, and boron, | The following section has been modified as follows: |

¹The Consent Agreement establishes notification and requirements for DEH regulation of CMWD recycled water use.

²Note: Actual current pretreatment strainers on the third treatment train are 200 microns, but this may be subject to change in the future. Recommend deleting reference to strainer size.

| No. | Page Number and Section in Revised Tentative Order | Comment | Change or Response |
|-----|--|---|--|
| | | <p>iron, and manganese, and establishes annual average discharge specifications.¹</p> | <p>The Order eliminates the daily maximum and 30 day average discharge specifications for TDS, chloride, sulfate, boron, iron, and manganese and establishes annual average discharge specifications <u>chloride and boron, and eliminates the daily maximum discharge specifications for TDS and sulfate.</u> The Order also retains the <u>annual average discharge specifications from the previous Order, and establishes new annual average discharge specifications for selected constituents.</u> Compliance with the annual average discharge specifications for all constituents in the Order is based upon the calendar year rather than the running average of the previous 12 months.</p> |

¹ Daily maximum and 30-day average effluent limits for iron and manganese were already eliminated and replaced by annual average limits by Order R9-2012-0027. Annual average discharge limits were already established by Order R9-2012-0027.