

State of California
California Regional Water Quality Control Board

Santa Ana Region

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ORDER NO. R8-2014-0016
APPROVING PRETREATMENT PROGRAM MODIFICATIONS AND
AMENDING ORDER NO. R8-2008-0008
WASTE DISCHARGE AND PRODUCER/USER RECLAMATION REQUIREMENTS
FOR
EASTERN MUNICIPAL WATER DISTRICT
REGIONAL WATER RECLAMATION FACILITIES
DISCHARGE TO GROUNDWATER MANAGEMENT ZONES
RIVERSIDE COUNTY

The California Regional Water Quality Control Board, Santa Ana Region, (hereinafter, Regional Board) finds that:

1. On September 5, 2008, the Regional Board adopted Order No. R8-2008-0008, prescribing Waste Discharge and Producer/User Reclamation Requirements for Eastern Municipal Water District's (hereinafter EMWD or Discharger) Regional Water Reclamation Facilities.
2. Provision VI.C.5.c. of Order No. R8-2008-0008, requires EMWD to update as necessary and implement it's approved pretreatment program, including its individual components. On January 16, 2013 EMWD's Board of Directors adopted Resolution No. 3003.3, which revised the Local Limits; Ordinance No. 59.6, a revised Sewer Use Ordinance; and Resolution No. 5093, a revised Enforcement Response Plan. On July 9, 2013 EMWD submitted, for the Regional Board's approval, the revised Sewer Use Ordinance, Local Limits, and Enforcement Response Plan.
3. The Regional Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region addressed through the Plan.

More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and total dissolved solids (TDS) objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. This Basin Plan Amendment was adopted by the Regional Board on January 22, 2004. The State Water Resources Control Board and Office of Administrative Law approved the Amendment on September 30, 2004 and December 23, 2004, respectively.

4. Effluent Limitations and Discharge Specifications IV.A.1.c and IV.B.1.b. of Order No. R8-2008-0008, set limitations for TDS for the discharge of wastewater and use of recycled water from EMWD's water reclamation facilities based on the groundwater quality objectives of the underlying groundwater management zones (GMZs). Due to difficulty in meeting the limits for the San Jacinto Upper and Lower Pressure GMZs, EMWD completed studies and proposed amendments to the water quality objectives and the Implementation Plan in the Basin Plan, and proposed amendments to the TDS limitations contained in Order No. R8-2008-0008.
5. On October 29, 2010, the Regional Board adopted Resolution No. R8-2010-0039, a "Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate "Maximum Benefit" Total Dissolved Solids (TDS) and Nitrogen Objectives and a Maximum Benefit Salt Management Plan for the San Jacinto Upper Pressure Management Zone." Resolution No. R8-2010-0039 updated the Basin Plan TDS objectives for the San Jacinto Upper Pressure Management Zone by establishing a "maximum benefit" objective of 500 mg/L and keeping the existing TDS objective of 320 mg/L as the "antidegradation" objective. Resolution No. R8-2010-0039 further required that EMWD implement a Salt Management Plan and a conjunctive use project for the San Jacinto Upper Pressure Management Zone that includes the recharge of State Project Water with low TDS concentrations as mitigation for recycled water quality when it exceeds the water quality objective. This conjunctive use project has been identified in the Hemet/San Jacinto Water Management Plan as the means to maintain a comprehensively managed GMZ. The Basin Plan amendment also requires EMWD to submit a plan and a schedule for construction of desalter(s) and brine disposal facilities within six months of: (1) the 5-year running average TDS in the discharge from the San Jacinto Valley Regional Reclamation Facility exceeds 640 mg/L; and/or (2) the volume weighted, ambient, average TDS concentration in the San Jacinto Upper Pressure Management Zone exceeds 490 mg/L. The Discharger is required to implement this Plan and Schedule for building desalter(s) upon approval of the Plan and Schedule by the Regional Board, and complete construction within 7 years of the Regional Board's approval of the Plan and schedule. The Discharger is also required by this Basin Plan amendment to monitor ambient ground water quality and develop a Salinity Management Plan for the reclaimed water discharges.
6. On May 6, 2011, EMWD submitted a report prepared by Wildermuth Environmental, Inc., dated April 29, 2011 and entitled, "Results of the Soil Characterization Study at the San Jacinto Wildlife Area in Support of the Use of Recycled Water in the San Jacinto Lower Pressure Management Zone", that demonstrates that there are natural barriers beneath the areas of reclaimed water use in the San Jacinto Lower Pressure Management Zone that preclude the reclaimed water used in the GMZ, and the commensurate TDS, from impacting the groundwater in the water bearing zones at lower depths.

7. On November 18, 2011, EMWD submitted an application for amending Order No. R8-2008-0008 to incorporate the changes to the Basin Plan per Resolution No. R8-2010-0039 for the San Jacinto Upper Pressure Zone, and to amend Order No. R8-2008-0008 to incorporate the findings of the April 29, 2011, geotechnical survey of portions of the San Jacinto Lower Pressure Zone.
8. The TDS Limitations contained in Order No. R8-2008-0008 prohibit discharges of TDS in excess of the limitations, unless the Discharger implements an acceptable plan to offset discharges in excess of the TDS limits. On June 25, 2008, the Discharger submitted, for approval of the Regional Board's Executive Officer, a final mitigation plan for recycled water reuse in the San Jacinto Watershed for Total Dissolved Solids (TDS). Order No. R8-2008-0008 further requires that the Discharger implement this TDS Mitigation Plan and provide offsets for discharges of TDS in excess of the limits in the Order. Rather than providing offsets for discharges in the Upper and Lower San Jacinto Pressure Management Zones, the Discharger proposed to implement several mitigation programs, including a conjunctive use project in the San Jacinto Upper Pressure Zone, and to complete a geotechnical study of the extent of the non-water bearing soils in the San Jacinto Lower Pressure Zone.
9. In June 2012, EMWD submitted a proposed "Groundwater Monitoring Program", as required by Task 1 of Resolution No. R8-2010-0039. The Regional Board hereby approves this proposed groundwater monitoring program. EMWD shall implement this Groundwater Monitoring Program within 30 days of adoption of this amendment to Order No. R8-2008-0008.
10. On April 23, 2013, EMWD submitted a "Salinity Management Plan for the Maximum Benefit of the San Jacinto Upper Pressure Management Zone", as required by Task No. 4 of Resolution No. R8-2010-0039. The Regional Board hereby approves the "Salinity Management Plan for the Maximum Benefit of the San Jacinto Upper Pressure Management Zone." EMWD shall implement the Salinity Management Plan within 30 days of adoption of this amendment to Order No. R8-2008-0008.
11. It is appropriate to amend Order No. R8-2008-0008 to update the effluent limitations for the San Jacinto Upper and Lower Pressure Zones, provided that the Discharger comply with the conditions of this amendment and other applicable requirements of Order No. R8-2008-0008 which require the Discharger to provide the best TDS quality water to its service area and minimize chemical additions at the plants so as to reduce TDS in the discharges from the Regional Water Reclamation facilities.
12. This project involves the amendment of waste discharge requirements for existing facilities and, as such, is exempt from the California Environmental Quality Act (Public Resources Code, Section 21100 et. seq.) in accordance with Section 15301, Chapter 3, Title 14, California Code of Regulations.

13. The Regional Board has notified the Discharger and other interested parties of its intent to amend waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
14. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. R8-2008-0008 be amended as follows:

1. The Discharger's Resolution No. 3003.3, establishing revised Local Limits; Ordinance No. 59.6, a revised Sewer Use Ordinance; and Resolution No. 5093, a revised Enforcement Response Plan, are hereby approved and shall become enforceable provisions of Order No. R8-2008-0008.
2. EMWD shall implement the June 2012 Groundwater Monitoring Program within 30 days of adoption of this amendment to Order No. R8-2008-0008.
3. EMWD shall implement the April 23, 2013 Salinity Management Plan within 30 days of adoption of this amendment to Order No. R8-2008-0008.

For items 4, 5, 6 and 7, below, additions are **bold and highlighted** and deletions are ~~stricken out~~.

4. Order No. R8-2008-0008, Table 7, page 14 of 31, is amended by updating the Recycled Water TDS Limitation for the San Jacinto Upper Pressure Zone as shown below:

Table 7. TDS Limitations for DP 001 through 005

Discharge Point	Groundwater Management Zone	Facility	TDS, mg/L
001	San Jacinto Upper Pressure GMZ	SJVRWRF	320 (Antidegradation Limit) 500 (Maximum Benefit Limit)
	Lakeview & Hemet North GMZ	SJVRWRF	520
002	Perris North GMZ	MVRWRF	570
	Perris South GMZ	MVRWRF	1260
003A & 003B	Perris South GMZ	PVRWRF	1260
004	Perris South GMZ	SCRWRF	1260
005	Perris South GMZ	TVRWRF	1260

5. Order No. R8-2008-0008, Table 8, page 15 of 31, is amended by updating the Recycled Water TIN Limitation for the San Jacinto Upper Pressure Zone as shown below:

Table 8. TIN Limitations for DP 001 through 005

Discharge Point	Groundwater Management Zone	Facility	TIN, mg/L
001	San Jacinto Upper Pressure GMZ	SJVRWRF	3.5 (Antidegradation Limit) 17.1 (Maximum Benefit Limit)
	Lakeview & Hemet North GMZ	SJVRWRF	3.5
002	Perris North GMZ	MVRWRF	11.8
	Perris South GMZ	MVRWRF	6.2
003A & 003B	Perris South GMZ	PVRWRF	6.2
004	Perris South GMZ	SCRWRF	6.2
005	Perris South GMZ	TVRWRF	6.2

6. Order No. R8-2008-0008, Table 10, page 16 of 31, is amended by updating the Recycled Water TDS Limitation for the San Jacinto Upper Pressure Zone and by deleting the limitation for the San Jacinto Lower Pressure Zone, as shown below:

Table 10. Recycled Water TDS Limitations

Groundwater Management Zone	TDS mg/L
Perris North	570
Perris South	1260
Menifee	1020
Lakeview & Hemet North	520
San Jacinto Lower Pressure Zone	520
San Jacinto Upper Pressure Zone	320 (Antidegradation Limit) 500 (Maximum Benefit Limit)
Canyon	220
Hemet South	730

7. Order No. R8-2008-008, Special Provisions, VI.C.2.c. on page 23 of 31 is revised as shown below:

c. San Jacinto Upper Pressure Management Zone Regulatory Compliance

~~The Discharger shall submit quarterly regulatory compliance status report for the San Jacinto Lower Pressure Management Zone to address the reuse activities within this GMZ.~~

The discharger shall implement the commitments identified in Table 11 by the specified compliance dates: (detailed descriptions of these commitments contained in the Basin Plan, as amended by Resolution No. RB8-2010-0039, are hereby incorporated by reference):

Table 11: Eastern Municipal Water District Maximum Benefit Commitments and Schedule for the San Jacinto Upper Pressure Management Zone

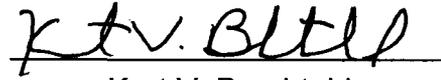
Description of Commitment	Compliance Date
<p>1. Groundwater Monitoring Program</p> <p>a. Submit Draft Monitoring Program to the Regional Board</p> <p>b. Implement Monitoring Program</p> <p>c. Annual monitoring data report submittal</p>	<p>a. Submitted on June 1, 2012 and approved by this Order.</p> <p>b. Within 30 days from Regional Board approval of the Monitoring Program</p> <p>c. August 15th</p>

<p>2. Ambient Groundwater Quality Determination for all the groundwater management zones within EMWD's service area in the San Jacinto Watershed. EMWD shall develop:</p> <ul style="list-style-type: none">a. Estimates of Ambient TDS and nitrateb. Ambient TDS projection	<ul style="list-style-type: none">a. July 1, 2012 and every 3 years thereafterb. July 18, 2014 and every 6 years thereafter
<p>3. TDS and Nitrogen Wasteload Allocation (WLA): Submit necessary studies and/or modeling to support update of the TDS and Nitrogen WLAs for the Upper Santa Ana River watershed.</p>	<p>Within 1 year after notification from the Regional Board that WLAs need to be reviewed/revised</p>
<p>4. Salinity Management Plan</p> <ul style="list-style-type: none">a. Submit Draft Salinity Management Plan for control of TDS in source water and in recycled waterb. Implement the Plan and Schedulec. Triennial Report Submittal	<ul style="list-style-type: none">a. Submitted April 23, 2013 and approved by this Order.b. Within 30 days of Regional Board approvalc. August 15, 2012 and every 3 years thereafter

<p>5. Desalter(s) and Brine Disposal Facilities (or Equivalent Technologies)</p> <p>a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities</p> <p>b. Implement Plan and Schedule</p> <p>c. Desalter(s)/Brine Disposal Facilities operational</p>	<p>a. Within 6 months of either of the following:</p> <ul style="list-style-type: none">i. When the 5-year running average TDS of the San Jacinto Regional Water Reclamation Facility effluent exceeds 640 mg/L; and/orii. When the volume weighted, ambient, average TDS concentration in the San Jacinto Upper Pressure MZ exceeds 490 mg/L <p>b. Within 30 days from Regional Board approval of plan/schedule</p> <p>c. Within 7 years from date of Regional Board approval of plan/schedule</p>
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<p>6. Recycled Water Use: The use of recycled water in the San Jacinto Upper Pressure Management Zone shall be limited to agricultural and landscape irrigation uses only. Recycled water shall not be used for direct, intentional recharge of the San Jacinto Upper Pressure Management Zone, unless authorization has been provided by the Regional Board and the Department of Public Health.</p> <p>a. Submit documentation of amount, TDS and nitrogen quality of recycled water provided to agricultural and/or landscape irrigation, the amount of groundwater pumped for agricultural and all other uses and amount of State Project water recharged in the San Jacinto Upper Pressure Management Zone.</p>	<p>a. Annually, by April 15th, after initiation of construction of facilities/implementation of programs to support recycled water use program.</p>
<p>7. EMWD recycled water quality improvement plan and schedule</p> <p>a. Submit Plan and Schedule</p> <p>b. Implement plan and schedule</p>	<p>a. 60 days after the TDS 5-year running average effluent quality at the San Jacinto Regional Water Reclamation Facility equals or exceeds 640 mg/L</p> <p>b. Upon approval by the Regional Board</p>

I, Kurt V. Berchtold, Executive Officer, do hereby certify that the forgoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on March 14, 2014

Handwritten signature of Kurt V. Berchtold in black ink, written over a horizontal line.

Kurt V. Berchtold
Executive Officer