
Central Valley Regional Water Quality Control Board

31 August 2015

Bill Osmer
Public Works Manager - Water Quality Control
City of Merced
678 West 18th Street
Merced, California 95340

CERTIFIED MAIL
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NOTICE OF APPLICABILITY

STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0090-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR RECYCLED WATER USE CITY OF MERCED WATER RECYCLING PROJECT MERCED COUNTY

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff reviewed the City of Merced's Notice of Intent (NOI) for regulatory coverage under Water Quality Order WQ 2014-0090-DWQ, *General Waste Discharge Requirements for Recycled Water Use* (hereafter, General Order).

The City of Merced owns and operates a wastewater treatment facility (WWTF) at 10260 Gove Road in Merced County. The WWTF is regulated under Waste Discharge Requirements (WDRs) R5-2014-0096 (NPDES Permit No. CA0079219) for the discharge of disinfected tertiary treated domestic wastewater to the Merced Wildlife Management Area, nearby cropland for irrigation of wheat and sudan grass, and the Hartley Slough, a tributary to the San Joaquin River. Given the current drought conditions, the City of Merced proposes to administer a recycled water use program that includes residential and commercial use activities.

On 3 June 2014, the State Water Resources Control Board adopted the General Order to regulate the use of recycled water for all Title 22 uses except groundwater recharge. In addition, the General Order delegates the responsibility of administering water recycling programs to a designated Administrator to the fullest extent possible. Based on the information provided in the NOI, the proposed water recycling project satisfies the general and specific conditions of the General Order. Therefore, this serves as formal notice that WQ 2014-0090-DWQ is applicable to the site and discharge described below. The City of Merced will act as the Administrator of the Recycled Water Program. You are hereby assigned WQ 2014-0090-R5003 for this discharge. Please include this number on all correspondence related to this discharge.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describe mandatory discharge and monitoring requirements. Sampling, monitoring, and reporting requirements applicable to your recycled water project must be completed in accordance with the attached Monitoring and Reporting Program (MRP) No. WQ 2014-0090-R5003. This MRP was developed after review of your NOI as described in the attached memorandum.

WASTEWATER TREATMENT FACILITY

The City of Merced's WWTF includes a headworks pump station with fine screens and grit removal, primary clarifiers, activated sludge basins with internal separate anoxic denitrification basins, secondary clarifiers, flocculation basins, filters, ultraviolet light (UV) disinfection, and a re-aeration outfall. Treated effluent meets the Title 22 requirements for disinfected tertiary recycled water.

RECYCLED WATER PROGRAM FOR CONSTRUCTION USE AND RESIDENTIAL/COMMERCIAL IRRIGATION USE

The City of Merced, as the Administrator, will be responsible for the administration of the Recycled Water Program authorized pursuant to this General Order, including the requirements of Title 22. The City of Merced is the recycled water producer and distributor and is responsible for all permit requirements related to the production and distribution of recycled water.

The City of Merced will supply recycled water for residential use activities, such as washing cars, outdoor furniture, and hard paths, and landscape irrigation. In addition to residential usage, city staff and private contractors will utilize recycled water for construction work dust control, street sweepers, hydraulic flushing of sewer lines, and for landscape irrigation of city owned park.

Residential customers, city staff, and private contractors will be required to obtain a use permit from the City of Merced. Obtaining a use permit requires completing a Use Permit Application and receiving training. Training will cover the approved Title 22 uses, use requirements, and prohibited uses. Customers will be given recycled water notice stickers to be placed on all containers that will be used for transporting and/or storing recycled water.

Once the recycled water users complete the Use Applications, attend training, and install stickers onto containers, they will be able to receive recycled water from designated fill stations during scheduled pickup hours. Recycled water users will be required to complete a log sheet every time they pick up recycled water.

DIVISION OF DRINKING WATER CONSIDERATIONS

On 1 July 2015, the City of Merced submitted a Title 22 Engineering Report to the Division of Drinking Water (DDW) for review of the proposed recycled water use program. On 15 July 2015, DDW provided comments and required the report to be revised. The City of Merced submitted a revised report and DDW issued an approval letter dated 21 August 2015. The approval letter stated no specific conditions of approval for the water recycling project. The City of Merced is required to notify DDW and receive approval prior to making any changes to the facility and operations described in the approved engineering report.

WATER RECYCLING USE REQUIREMENTS

1. The production, distribution, and use of recycled water shall be managed in accordance with the NOI, DDW approved Title 22 Engineering Report, and this Notice of Applicability (NOA).
2. Application of recycled water shall be limited to the uses described in the NOI, DDW approved Title 22 Engineering Report, and this NOA.

3. The use of recycled water shall not cause pollution or nuisance, as defined by Water Code section 13050.
4. The recycled water shall be disinfected tertiary recycled water as defined by Title 22, section 60301.230.
5. The City of Merced shall promptly notify the Central Valley Water Board of any recycled water spills or unauthorized uses.

GENERAL INFORMATION AND REQUIREMENTS

The City of Merced shall comply with the Specifications, Water Recycling Administration Requirements, and General Provisions of the General Order.

Please review this NOA carefully to ensure that it completely and accurately reflects the proposed Recycled Water Program. If the discharge violates the terms or conditions, the Central Valley Water Quality Control Board may take enforcement action, including the assessment of an administrative civil liability. Failure to abide by the conditions of the General Order, including MRP No. WQ-2014-0090-R5003, and this letter authorizing applicability could result in enforcement actions, as authorized by provisions of the California Water Code.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. The City of Merced must submit in writing a Notice of Termination once the water recycling program has ended.

DOCUMENT SUBMITTALS

The City of Merced shall continue to submit electronic self-monitoring reports (eSMRs) using the State Water Resources Control Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://ciwqs.waterboards.ca.gov/>).

If you have any questions regarding this matter, please contact Scott Hatton by phone at (559) 444-2502, by email at scott.hatton@waterboards.ca.gov.

Original signed by Clay L. Rodgers for

Pamela C. Creedon
Executive Officer

Enclosures: State Water Resources Control Board Order WQ 2014-0090-DWQ, General Waste Discharge Requirements for Recycled Water Use (Discharger Only) Monitoring and Reporting Program No. WQ 2014-0090-R5003 Review Memorandum of City of Merced's Notice of Intent

cc via email: Annalisa Kihara, State Water Resources Control Board, Sacramento
Timothy O'Brien, State Water Resources Control Board, Sacramento
Kassy Chauhan, State Water Resources Control Board, Division of Drinking Water, Fresno

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. WQ 2014-0090-R5003

FOR

THE CITY OF MERCED
MERCED COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system for use of the treated effluent as recycled water. This MRP is issued pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or Executive Officer.

Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

Water Code section 13268 states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

The City of Merced has applied for and received coverage for the recycled water system that is subject to the notice of applicability (NOA) of Water Quality Order 2014-0090-DWQ (General Order). The reports are necessary to ensure that the City of Merced complies with the NOA and General Order. Pursuant to California Water Code section 13267, the City of Merced shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a California Environmental Laboratory Program (ELAP) certified laboratory or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced by the manufacturer or authorized representative at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

Monitoring requirements listed below may duplicate existing requirements under Waste Discharge Requirements R5-2014-0096 (NPDES Permit No. CA0079219). Duplication of sampling and monitoring activities are not required if the monitoring activity satisfies the requirements of this order. Collecting composite samples is acceptable in most cases. The facility may continue using existing sampling collection equipment that is consistent with the applicable facility order. However, due to short sample holding times, bacteriological samples collected to verify disinfection effectiveness must be grab samples. In addition to submitting the results under another order, the results shall be submitted in the reports required by this General Order.

RECYCLED WATER MONITORING

If recycled water is used for irrigation of landscape areas, priority pollutant monitoring is required at the production facility. The frequency of monitoring corresponds to the flow rate of the recycled water use. Sampling shall be consistent with the following:

Constituent	Treatment System Flow Rate	Sample Frequency	Reporting Frequency
Priority Pollutants	< 1mgd ⁽¹⁾	5 years	The next annual report.
	> 1mgd	Annually	Annually

⁽¹⁾ mgd denotes million gallons per day

DISINFECTION SYSTEM MONITORING

If disinfection is performed, samples shall be collected from immediately downstream of the disinfection system. Depending upon the level of disinfection and recycled water disposal, monitoring requirements vary. Disinfection monitoring shall be customized to the site-specific conditions from the following:

Constituent/Parameter	Units	Sample Type	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL ⁽¹⁾	Grab	Daily	Annually
Turbidity	NTU	Meter	Continuous	Annually

⁽¹⁾ MPN/100mL denotes most probable number per 100 milliliter sample.

⁽²⁾ NTU denotes nephelometric turbidity unit.

USE AREA MONITORING

The City of Merced shall monitor use areas(s) at a frequency appropriate to determine compliance with the General Order and the City of Merced's recycled water use program requirements. The City of Merced may assign monitoring responsibilities to a User as part of the Water Recycling Use Permit

program; the City of Merced retains responsibility to ensure the data is collected, as well as prepare and submit the annual report.

The following shall be recorded for each user with additional reporting for use areas as appropriate. The frequency of use area inspections shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use area monitoring shall include the following parameters:

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Recycled Water User	--	--	--	Annually
Recycled Water Flow	gpd ⁽¹⁾	Meter ⁽²⁾	Monthly	Annually
Acreage Applied ⁽³⁾	Acres	Calculated	--	Annually
Application Rate	inches/acre/year	Calculated	--	Annually
Soil Saturation/Ponding	--	Observation	Quarterly	Annually
Nuisance Odors/Vectors	--	Observation	Quarterly	Annually
Discharge Off-Site	--	Observation	Quarterly	Annually
Notification Signs ⁽⁴⁾	--	Observation	Quarterly	Annually

⁽¹⁾ gpd denotes gallons per day.

⁽²⁾ Meter requires meter reading, a pump run time meter, or other approved method such as tank volume.

⁽³⁾ Acreage applied denotes the acreage to which recycled water is applied.

⁽⁴⁾ Notification signs shall be consistent with the requirements of title 22, section 60310(g).

REPORTING

In reporting monitoring data, the City of Merced shall arrange the data in tabular form so that the date, data type (e.g., flow rate, bacteriological, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

The City of Merced shall continue to submit electronic self-monitoring reports (eSMRs) using the State Water Resources Control Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://ciwqs.waterboards.ca.gov/>). The City of Merced shall report in the eSMR the results for all monitoring specified in this MRP.

A. Annual Report

Annual Reports shall be submitted by **April 1st following the monitoring year**. The Annual Report shall include the following:

1. A summary table of all recycled water Users and use areas. Maps may be included to identify use areas. Newly permitted recycled water Users and use areas shall be identified.
2. A summary table of all inspections and enforcement activities initiated by the City of Merced. Include a discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order. Copies of any enforcement actions taken by the City of Merced shall be provided.
3. An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year.

4. Tabular and graphical summaries of all monitoring data collected during the year, including priority pollutant monitoring, if required.
5. The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the City of Merced or the City of Merced's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The Discharger shall implement the above monitoring program as of the date of this MRP.

Ordered by:

Original signed by: Clay L. Rodgers for

PAMELA C. CREEDON, Executive Officer

31 August 2015

DATE

Central Valley Regional Water Quality Control Board

TO: Clay L. Rodgers
Assistant Executive Officer

Lonnie M. Wass
Supervising Engineer

FROM: Scott J. Hatton
Senior Engineer
RCE 67889

DATE: 31 August 2015

SUBJECT: APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0090-DWQ, GENERAL WASTE DISCHARGE REQUIREMENTS FOR RECYCLED WATER USE, CITY OF MERCED, MERCED COUNTY

On 1 July 2015, Central Valley Water Board staff (staff) received a draft Notice of Intent (NOI) and Title 22 Engineering Report from the City of Merced for regulatory coverage under the *State Water Resources Control Board Order WQ 2014-0090-DWQ, General Waste Discharge Requirements for Recycled Water Use* (General Order). A final version of the NOI and Title 22 Engineering Report were submitted on 12 August 2015 and were signed by Ken Elwin, a California registered professional civil engineer and the City Engineer and acting Public Works Director of the City of Merced. The NOI and the Title 22 Engineering Report were also submitted to the State Water Resources Control Board, Division of Drinking Water (DDW). This memorandum provides a summary of staff's review of the NOI and the applicability of this discharge to be covered under the General Order.

DESCRIPTION OF DISCHARGE

The City of Merced owns and operates a wastewater treatment facility (WWTF) at 10260 Gove Road in Merced County. The WWTF is regulated under Waste Discharge Requirements (WDRs) R5-2014-0096 (NPDES Permit No. CA0079219) for the discharge of disinfected tertiary treated domestic wastewater to the Merced Wildlife Management Area, nearby cropland for irrigation of wheat and sudan grass, and the Hartley Slough, a tributary to the San Joaquin River. Given the current drought conditions, the City of Merced proposes to administer a recycled water use program that includes residential use activities, such as washing cars, outdoor furniture, and hard paths, and landscape irrigation. In addition to residential usage, city staff and private contractors will utilize recycled water for construction work dust control, street sweepers, hydraulic flushing of sewer lines, and for landscape irrigation of city owned parks.

The City of Merced will assume to roles and responsibilities of the Administrator under the General Order and will provide training to recycled water users and require them to submit a recycled water use permit application for approval. The City of Merced has established a Recycled Water Program that is consistent with recommendations from DDW.

The City of Merced is not required to file a wastewater change petition with the State Water Resources Control Board since the recycled water will be taken from the wastewater discharged to land and not taken from wastewater discharge to surface water.

DIVISION OF DRINKING WATER CONSIDERATIONS

On 15 July 2015, DDW provided comments on the draft Title 22 Engineering Report. The City of Merced submitted a final Title 22 Engineering Report on 12 August 2015 and DDW issued an approval letter dated 21 August 2015.

MONITORING REQUIREMENTS

Monitoring requirements included in the following sections from Attachment B of the General Order are appropriate for this discharge:

- Recycled Water Monitoring,
- Disinfection System Monitoring, and
- Use Area Monitoring.