

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2020-0828  
FOR  
CITY OF COLUSA  
RECYCLED WATER PROGRAM  
COLUSA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring portions of the recycled water system at the City of Colusa's Wastewater Treatment Plant (WWTP) regulated by the Notice of Applicability (NOA) of Water Quality Order WQ 2016-0068-DDW-R5016. The WWTP is owned and operated by the City of Colusa (the Administrator). This MRP is issued pursuant to Water Code section 13267. The Administrator 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.”

Pursuant to Water Code section 13267, the Administrator shall implement this MRP and submit the monitoring reports described herein. The reports are necessary to ensure that the Administrator complies with the NOA and Water Quality Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use (hereafter, General Order).

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 Central Valley 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 State Water Resources Control Board, Environmental Laboratory Accreditation Program 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 and/or calibrated by the manufacturer 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 other orders including Waste Discharge Requirements (WDRs) or waivers of WDRs. Duplication of sampling and monitoring activities are not required if the monitoring activity satisfies the requirements of this General Order and MRP. 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 and MRP.

### **RECYCLED WATER MONITORING**

If recycled water is used for irrigation of landscape areas, priority pollutant monitoring is required at the production facility. Landscape areas are defined as parks; greenbelts; playgrounds; school yards; athletic fields; golf courses; cemeteries; residential landscaping; common areas; commercial landscaping (except eating areas); industrial landscaping (except eating areas); freeway, highway, and street landscaping. The frequency of monitoring corresponds to the flow rate of recycled water use. Sampling shall be consistent with the following as shown in the table below:

<b>Constituent</b>	<b>Treatment System, Flow Rate</b>	<b>Sample Frequency</b>	<b>Reporting Frequency</b>
Priority Pollutants	< 1 mgd	5 years	the next annual report

### DISINFECTION SYSTEM MONITORING

Samples shall be collected immediately downstream of the disinfection system and prior to discharging to the recycled water storage basins. Disinfection monitoring shall include the following as shown in the table below.

<b>Parameter</b>	<b>Units</b>	<b>Type of Sample</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
Total Coliform Organism	MPN/100 mL	Grab	Daily	Quarterly
Turbidity	NTU	Meter	Continuous	Quarterly

Daily monitoring shall occur on days that recycled water is being discharged to the recycled water storage ponds. MPN/100 mL denotes most probable number per 100 mL sample. NTU denotes nephelometric turbidity unit.

### POND SYSTEM MONITORING

Recycled water storage ponds are used to store recycled water when it is not needed. The Operational Storage Pond and Season Storage Pond is used to store recycled water during the winter months and non-peak irrigation seasons. These monitoring requirements apply only to ponds permitted through this General Order. Ponds covered by an existing order shall continue to be monitored in accordance with that order. Pond(s) containing recycled water shall be monitored for the following as shown in the table below:

<b>Parameter</b>	<b>Units</b>	<b>Sample Type</b>	<b>Sample Frequency</b>	<b>Reporting Frequency</b>
Dissolved Oxygen	mg/L	Grab	Weekly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Odors	Not applicable	Observation	Weekly	Quarterly
Berm Condition	Not applicable	Observation	Weekly	Quarterly

### USE AREA MONITORING

The Administrator shall monitor use areas(s) at a frequency appropriate to determine compliance with this General Order and the recycled water use program requirements. The Administrator may assign monitoring responsibilities to a User as part of the Water Recycling Use Permit program; the Administrator 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 as shown in the table below:

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Recycled Water User	Not applicable	Not applicable	Not applicable	Annually
Recycled Water Flow	gpd	Meter	Monthly	Annually
Acreage Applied	acres	Calculated	Not applicable	Annually
Application Rate	inches/acre/year	Observation	Not applicable	Annually
Nitrogen Loading Rate	Pounds/acre/year	Calculated	Not applicable	Annually
Salinity Loading Rate	Pounds/acre/year	Calculated	Not applicable	Annually
Soil Saturation/ Ponding	Not applicable	Observation	Quarterly	Annually
Nuisance Odors/Vectors	Not applicable	Observation	Quarterly	Annually
Discharge Off-Site	Not applicable	Observation	Quarterly	Annually
Notification Signs	Not applicable	Observation	Quarterly	Annually

Meter requires meter reading, a pump run time meter, or other approved method. Acreage applied denotes the acreage to which recycled water is applied. Notification signs shall be consistent with the requirements of California Code of Regulations, Title 22, section 60306 (g).

### COOLING/INDUSTRIAL/OTHER USES OF RECYCLED WATER

If recycled water is used for industrial, commercial cooling, or air conditioning in which a mist is generated, the cooling system shall comply with California Code of Regulations, title 22, section 60306 (c).

## DUAL PLUMBED RECYCLED WATER SYSTEMS

The City of Colusa is not proposing dual plumbed use areas as part of their Recycled Water Program. If the City proposes dual plumbed recycled water systems at a later date, the City shall consult with State Water Board for additional reporting, design, and operation requirements.

## REPORTING

In reporting monitoring data, the Administrator 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 this 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.

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov).

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board  
ECM Mailroom  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, California 95670

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Attention: Compliance/Enforcement Section  
Discharger: City of Colusa  
Facility/Project: Recycled Water Program  
County: Colusa  
Place ID: CW-215225

Monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated. For a User conducting any of its own analyses, reports must be signed and certified by the chief of the laboratory.

### A. Quarterly Monitoring Reports

Quarterly reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g., the January-March Quarterly Report is

due by May 1<sup>st</sup>). The reports shall bear the certification and signature of the Administrator's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required quarterly monitoring. Data shall be organized by the associated monitoring section (Disinfection System Monitoring and Pond System Monitoring) and presented in tabular format.
2. A comparison of monitoring data to the discharge specifications and requirements.
3. A disclosure of any violations of the NOA and/or General Order requirements and an explanation of corrective actions.
4. If requested by staff, copies of laboratory analytical report(s) and chain of custody form(s).

## **B. Annual Report**

Annual Reports shall be submitted to the Regional Water Board by **April 1<sup>st</sup> 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. When applicable, supplement to the Title 22 Engineering Report and the State Water Board approval letter supporting those additions shall be included.
2. A list of new authorized recycled water customers, including name, application, source, and projected annual flow to be delivered.
3. Tabular and graphical summaries of all monitoring data (including but not limited to recycled water quality results, recycled water use by each user, total acres irrigated, and annual nitrogen and salinity application loading rates) to collected during the year, including priority pollutant monitoring, if required.
4. A summary table of all inspections and enforcement activities initiated by the Administrator. 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 documentation of any enforcement actions taken by the Administrator shall be provided.
5. 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.
6. An update regarding current and future development of the Recycled Water Program, including planning, design, and construction of facilities; preparation of

required reports and technical documents; and progress toward regulatory approvals.

7. Progress and evaluation of any special studies or projects being undertaken related to the Water Recycling Program.
8. The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report 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 Administrator or the Administrator'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 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 Administrator shall implement the above monitoring program as of the date of this MRP.

This Order is issued under authority delegated to the Executive Officer by the Central Valley water Board pursuant to Resolution R5-2009-0027 and is effective upon signature.

Ordered by:



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for PATRICK PULUPA, Executive Officer

12/28/2020

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Date

## GLOSSARY

BOD <sub>5</sub>	Five-day biochemical oxygen demand
CaCO <sub>3</sub>	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Every day except weekends or holidays.
Twice Weekly	Twice per week on non-consecutive days.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Bimonthly	Once every two calendar months (i.e., six times per year) during non-consecutive months.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
MTF	Multiple tube fermentation



### Appendix A to 40 CFR, Part 423--126 Priority Pollutants

001 Acenaphthene	047 Bromoform (tribromomethane)	090 Dieldrin
002 Acrolein	048 Dichlorobromomethane	091 Chlordane (technical mixture and metabolites)
003 Acrylonitrile	051 Chlorodibromomethane	092 4,4-DDT
004 Benzene	052 Hexachlorobutadiene	093 4,4-DDE (p,p-DDX)
005 Benzidine	053 Hexachloromyclopentadiene	094 4,4-DDD (p,p-TDE)
006 Carbon tetrachloride (tetrachloromethane)	054 Isophorone	095 Alpha-endosulfan
007 Chlorobenzene	055 Naphthalene	096 Beta-endosulfan
008 1,2,4-trichlorobenzene	056 Nitrobenzene	097 Endosulfan sulfate
009 Hexachlorobenzene	057 2-nitrophenol	098 Endrin
010 1,2-dichloroethane	058 4-nitrophenol	099 Endrin aldehyde
011 1,1,1-trichloroethane	059 2,4-dinitrophenol	100 Heptachlor
012 Hexachloroethane	060 4,6-dinitro-o-cresol	101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
013 1,1-dichloroethane	061 N-nitrosodimethylamine	102 Alpha-BHC
014 1,1,2-trichloroethane	062 N-nitrosodiphenylamine	103 Beta-BHC
015 1,1,2,2-tetrachloroethane	063 N-nitrosodi-n-propylamin	104 Gamma-BHC (lindane)
016 Chloroethane	064 Pentachlorophenol	105 Delta-BHC (PCB-polychlorinated biphenyls)
018 Bis(2-chloroethyl) ether	065 Phenol	106 PCB-1242 (Arochlor 1242)
019 2-chloroethyl vinyl ether (mixed)	066 Bis(2-ethylhexyl) phthalate	107 PCB-1254 (Arochlor 1254)
020 2-chloronaphthalene	067 Butyl benzyl phthalate	108 PCB-1221 (Arochlor 1221)
021 2,4, 6-trichlorophenol	068 Di-N-Butyl Phthalate	109 PCB-1232 (Arochlor 1232)
022 Parachlorometa cresol	069 Di-n-octyl phthalate	110 PCB-1248 (Arochlor 1248)
023 Chloroform (trichloromethane)	070 Diethyl Phthalate	111 PCB-1260 (Arochlor 1260)
024 2-chlorophenol	071 Dimethyl phthalate	112 PCB-1016 (Arochlor 1016)
025 1,2-dichlorobenzene	072 1,2-benzanthracene (benzo(a) anthracene)	113 Toxaphene
026 1,3-dichlorobenzene	073 Benzo(a)pyrene (3,4-benzo-pyrene)	114 Antimony
027 1,4-dichlorobenzene	074 3,4-Benzofluoranthene (benzo(b) fluoranthene)	115 Arsenic
028 3,3-dichlorobenzidine	075 11,12-benzofluoranthene (benzo(b) fluoranthene)	116 Asbestos
029 1,1-dichloroethylene	076 Chrysene	117 Beryllium
030 1,2-trans-dichloroethylene	077 Acenaphthylene	118 Cadmium
031 2,4-dichlorophenol	078 Anthracene	119 Chromium
032 1,2-dichloropropane	079 1,12-benzoperylene (benzo(ghi) perylene)	120 Copper
033 1,2-dichloropropylene (1,3-dichloropropene)	080 Fluorene	121 Cyanide, Total
034 2,4-dimethylphenol	081 Phenanthrene	122 Lead
035 2,4-dinitrotoluene	082 1,2,5,6-dibenzanthracene (dibenzo(h) anthracene)	123 Mercury
036 2,6-dinitrotoluene	083 Indeno (,1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)	124 Nickel
037 1,2-diphenylhydrazine	084 Pyrene	125 Selenium
038 Ethylbenzene	085 Tetrachloroethylene	126 Silver
039 Fluoranthene	086 Toluene	127 Thallium
040 4-chlorophenyl phenyl ether	087 Trichloroethylene	126 Silver
041 4-bromophenyl phenyl ether	088 Vinyl chloride (chloroethylene)	128 Zinc
042 Bis(2-chloroisopropyl) ether	089 Aldrin	129 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
043 Bis(2-chloroethoxy) methane		
044 Methylene chloride (dichloromethane)		
045 Methyl chloride (dichloromethane)		
046 Methyl bromide (bromomethane)		