



Central Valley Regional Water Quality Control Board

13 February 2020

Steve Whit, Director
Fresno County Service Area 32
Cantua Creek WWTF
2220 Tulare Street, 6th Floor
Fresno, California 93721

CERTIFIED MAIL
7019 2970 0001 5206 2513

NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5335, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS, FRESNO COUNTY SERVICE AREA 32, CANTUA CREEK WASTEWATER TREATMENT FACILITY, FRESNO COUNTY

On 24 September 2019, Fresno County (Discharger or District) submitted a Report of Waste Discharge (RWD) for County Service Area 32, Cantua Creek wastewater treatment facility (WWTF). The Discharger is requesting coverage under the State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The RWD included a completed and signed Form 200 and a technical report prepared and signed by Mr. Dale A. Siemer, a California registered engineer (RCE 59670). Supplemental information on proposed WWTF upgrades was submitted on 17 January 2020. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below, you are hereby assigned General Order **2014-0153-DWQ-R5335**. After Waste Discharge Requirements (WDRs) Order 82-062, has been rescinded coverage under General Order 2014-0153-DWQ-R5335 will become effective.

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 treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached *Monitoring and Reporting Program* (MRP) No. **2014-0153-DWQ-R5335**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

1685 E Street, Fresno, CA 93706 | www.waterboards.ca.gov/centralvalley

DISCHARGE DESCRIPTION

Fresno County owns and operates the Cantua Creek WWTF that is regulated by WDRs Order 82-062. Order 82-062 allows a discharge of up to 61,000 gallons per day (gpd) to unlined ponds.

The WWTF is adjacent to the California Aqueduct near the intersection of San Mateo Avenue and Elkhorn Avenue in Fresno County (36°29'10.60"N, 120°19'29.44"W). The WWTF serves the small unincorporated community of Cantua Creek consisting of about 87 housing units and an elementary school. Cantua Creek and the WWTF are shown in **Attachment A**, which is incorporated by reference and considered part of this Notice of Applicability (NOA).

According to the September 2019 RWD, the WWTF can treat a daily flow of up to 61,000 gpd with current flows ranging from about 30,000 to 47,000 gpd. The WWTF consists of a lift station and three unlined ponds. According to the September 2019 RWD, wastewater from the lift station typically flows into the aerated treatment pond (Pond 1), bypassing the old communitor (non-operating). After Pond 1, the wastewater flows via gravity to the disposal pond (Pond 3). Pond 2 was intended for expansion of the WWTF but is not in use and there is currently no way to discharge wastewater to Pond 2.

The Discharger recently received grant funding for WWTF improvements and plans to install a new flow meter and bar screen up-stream of the ponds, construct a diversion to send the wastewater to Pond 2, and install a new aeration system in Pond 2. Once construction is complete, Pond 1 will be allowed to dry out so the weeds and vegetation can be removed. Pond 1 will be retained to provide backup in case of an emergency or for maintenance on Pond 2. A site plan for the WWTF is shown in **Attachment B**.

FACILITY SPECIFIC REQUIREMENTS

The Discharger will maintain exclusive control over the discharge and shall comply with the terms and conditions of this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5335.

In accordance with Section B.1 of the General Order, treated wastewater discharged to the ponds **shall not exceed a monthly average daily discharge of 61,000 gallons per day (gpd)**. Per the requirements of the General Order, discharges with flow rates greater than 20,000 gpd must be evaluated as described in Attachment 1 of the General Order to determine if nitrogen effluent limits are required. Based on the results of the nitrogen evaluation, as discussed in the attached memorandum, a nitrogen effluent limit is not required at this time. However, the Discharger is required to conduct influent and effluent nitrogen monitoring to evaluate its discharge and the potential impacts of nitrogen on groundwater

The General Order states in Section B.1.I that the Discharger shall comply with the setbacks described in Table 3 of the General Order. This table summarizes different setback requirements for wastewater treatment system equipment, activities, land

application areas, and storage and/or treatment ponds from sensitive receptors and property lines where applicable. The Discharger shall comply with the applicable setback requirements, as summarized in the following table:

Table 1 - Site-Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well	Flowing Stream (see 1 below)	Property Line
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System	150 ft	50 ft	5 ft
Impoundment (undisinfected secondary wastewater)	150 ft	150 ft	50 ft

1. A flowing stream shall be measured from the ordinary high-water mark established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation type, presence of liter or debris, or other appropriate means.

The Discharger shall comply with all the pond system requirements in Section B.5 of the General Order. Section B.5.a states that sufficient freeboard shall be maintained at all times in ponds to provide adequate storage capacity and prevent wastewater spills. Freeboard shall be measured vertically from the lowest elevation of the pond berm to the pond water surface. Section B.5.d states that objectionable odors shall not create nuisance conditions beyond the limits of the wastewater treatment facility. A dissolved oxygen concentration of less than 1.0 mg/L in the upper one foot of any wastewater pond shall be evidence of the potential to generate objectionable odors.

As discussed in the attached memorandum, the operative *Water Quality Control Plan for the Tulare Lake Basin* (Tulare Lake Basin Plan) includes more stringent effluent limitations for 5-day biochemical oxygen demand (BOD₅) for discharges of domestic wastewater to land. Therefore, this NOA includes an effluent limitation for BOD as required by the Tulare Lake Basin Plan for systems with advanced primary treatment.

The Discharger shall not exceed the following effluent limitation for BOD₅ (as specified in the Tulare Lake Basin Plan):

Table 2. Effluent Limitations

Constituent	Units	Limit (see 1 below)
BOD ₅	mg/L	70 (monthly average) (see 2 below)

1. The limitations included in this table apply to the treated effluent discharged to the disposal pond (i.e., Pond 3).
2. The monthly average concentration is the arithmetic mean of measurements recorded during the calendar month. If only one sample is collected in a calendar month, then that sample measurement is the monthly average concentration.

Provision E.1 of the General Order requires dischargers enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of the NOA (**13 May 2020**):

- Spill Prevention and Emergency Response Plan (Provision E.1.a.).
- Sampling and Analysis Plan (Provision E.1.b).
- Sludge Management Plan (Provision E.1.c).

A copy of the Spill Prevention and Emergency Response Plan, the Sampling and Analysis Plan, and Sludge Management Plan shall be maintained at the treatment facility and shall be presented to the Regional Water Board staff upon request. The Sludge Management Plan shall be submitted to the Central Valley Water Board **within 90 days** of the issuance of the NOA.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5335 could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in this NOA is prohibited. If the method of waste disposal changes from that described in this NOA, you must submit a new Report of Waste Discharge describing the new operation.

As stated in Section E.2.w of the General Order, in the event any change in control or ownership of the Facility or wastewater disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this General Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board Executive Officer.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by the General Order ceases, so that we may terminate coverage and avoid unnecessary billing.

On 31 May 2018, the Central Valley Water Board adopted Basin Plan amendments incorporating new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (**CV-SALTS**) initiative. Further details of these strategies are discussed in the enclosed memorandum. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of this NOA to ensure the goals of the Salt and Nitrate Control Program are met.

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15,
Place ID: 201075,
Facility Name: Fresno County Service Area 32, Cantua Creek WWTF
Order: 2014-0153-DWQ-R5335

All documents, including responses to inspection and written notification, submitted to comply with this General Order shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Russell Walls. Mr. Walls can be reached at (559) 488-4392 or russell.walls@waterboards.ca.gov. Questions regarding the permitting aspects of the General Order and notification for termination of coverage under the General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention to Katie Carpenter. Ms. Carpenter can be reached at (559) 445-5551 or by email at Katie.Carpenter@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this NOA falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](#) may be found on the internet at (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/) or will be provided upon request.

WDRs Order 82-062 is tentatively proposed to be rescinded at the 16/17 April 2020 meeting of the Central Valley Water Board. Upon rescission of your individual WDRs, coverage for your Facility under the General Order shall become applicable under this Notice of Applicability.

If you have any questions regarding this matter, please contact Katie Carpenter by phone at (559) 445-5551, by email at katie.carpenter@waterboards.ca.gov.

Original Signed by Scott Hatton for:
Patrick Pulupa
Executive Officer

Attachments: • Attachment A – Site Location Map
 • Attachment B – Site Plan

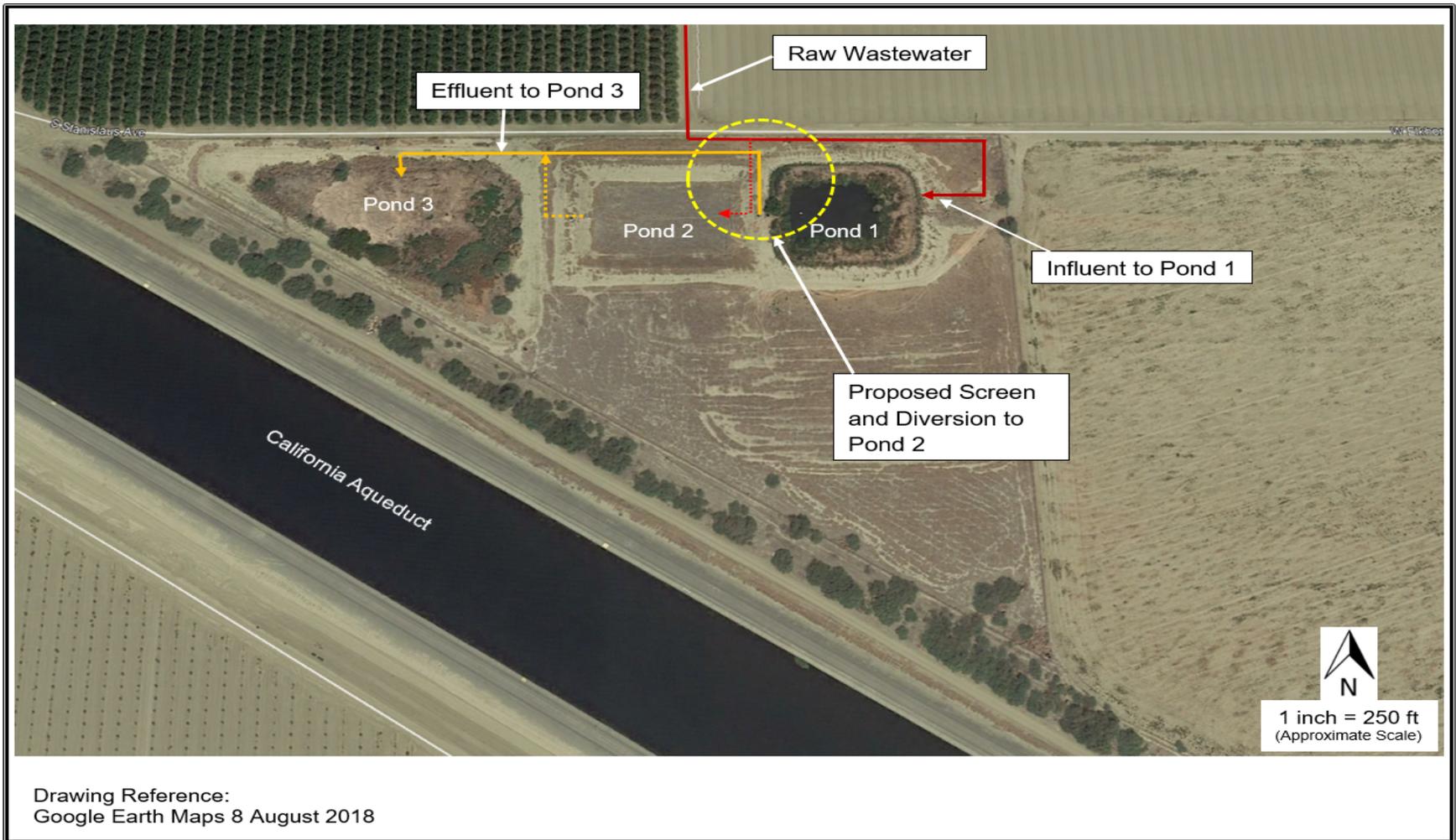
Enclosures: • Monitoring and Reporting Program No. 2014-0153-DWQ-R5335
 • 13 February 2020 Regional Water Board Staff Memorandum
 • State Water Resources Control Board Order WQ 2014-0153-DWQ

cc: • Scott Couch, State Water Resources Control Board, Division of
 Water Quality (via email)
 • Jose Robledo, State Water Resources Control Board, Division of
 Drinking Water, Fresno (via email)
 • Mitch Wright, Fresno County Public Works, Fresno (via email)



Drawing Reference:
Google Earth Maps 23 August 2018

ATTACHMENT A – SITE LOCATION MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5335
FOR
FRESNO COUNTY SERVICE AREA 32
CANTUA CREEK WASTEWATER TREATMENT FACILITY
FRESNO COUNTY



ATTACHMENT B – SITE PLAN
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5335
FOR
FRESNO COUNTY SERVICE AREA 32
CANTUA CREEK WASTEWATER TREATMENT FACILITY
FRESNO COUNTY

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5335
FOR
FRESNO COUNTY SERVICE AREA 32
CANTUA CREEK WASTEWATER TREATMENT FACILITY
FRESNO COUNTY**

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267, Fresno County (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.

Section 13267 of the California Water Code 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.”

Section 13268 of the California Water Code 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 Discharger owns and operates Fresno County Service Area 32 Cantua Creek wastewater treatment facility (WWTF) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5335. The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code

section 13267, the Discharger 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 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 (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 and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

POND SYSTEM MONITORING

Influent samples shall be taken from a location that provides a representative sample of the wastewater and flow rate prior to entering the treatment pond(s). At a minimum, influent monitoring shall include the monitoring specified in Table 1 below. Influent flow rate shall be metered at the lift station.

Table 1 – Influent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	Gallons per day (gpd)	Metered (see 1. below)	Continuous	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
pH	pH units	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Semi-annually (see 2. below)	Semi-annually

1. Flow rate may be metered or estimated based on potable water supply meter reading or other approved method.
2. Semi-annual sampling shall be conducted once during the first quarter (January – March) and third quarter (July – September) unless otherwise specified.

Effluent samples shall be taken from a location that provides a representative sample of the wastewater after treatment in the aerated pond, but prior to discharge to the disposal pond. At a minimum, the effluent shall be monitored as specified in Table 2 below (unless specified otherwise).

Table 2 – Effluent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
BOD ₅ (see 1. below)	mg/L	Grab	Monthly	Quarterly
pH	pH units	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Semi-annually (see 2. below)	Semi-annually

1. BOD₅ is 5-day biochemical oxygen demand at 25°C.
2. Semi-annual sampling shall be conducted once during the first quarter (January – March) and the third quarter (July – September) unless otherwise specified.

All wastewater treatment and disposal ponds (lined or unlined) shall be monitored as specified in Table 3 below.

Table 3 – Wastewater Pond Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
DO (see 1. below)	mg/L	Grab	Weekly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Odors	---	Observation	Monthly	Quarterly
Berm Condition	---	Observation	Monthly	Quarterly

1. DO (or Dissolved Oxygen) shall be measured between 8:00 a.m. and 10:00 a.m.

SLUDGE/BIOSOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernable. The data shall be summarized to clearly 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 Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate Regional Water Board office, in this case 1685 E Street, Fresno, CA 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15,
Place ID: 201075,
Facility Name: Fresno County Service Area 32, Cantua Creek
Order: 2014-0153-DWQ-R5335

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 1st). The reports shall bear the certification and signature of the Discharger's authorized representative. At the minimum, the quarterly reports shall include:

1. Results of all required monitoring conducted during the quarter.
2. A comparison of monitoring data to the discharge specifications, applicable effluent limits, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format).
3. 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 **March 1st following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment system, including discussion of the capacity issues nuisance conditions, system problems and a forecast of the flows anticipated in the next year. A flow rate evaluation as described in the General Order (Provision E.2.c), shall also be submitted.
3. Copies of laboratory analytical report(s) and chain of custody form(s).
4. 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.
5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
6. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

C. State Water Board Volumetric Annual Reporting

Per [State Water Resources Control Board's Water Quality Control Policy](https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/) (https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/), amended in December 2018, dischargers of treated wastewater and recycled water are required to report annually monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The Discharger shall submit an annual report to the State Water Board by **April 30 of each calendar year** furnished with the information detailed below. For calendar year 2019, data shall be reported for the months January through December. The Discharger must submit this annual report containing monthly data in electronic format via the State Water Board's [Internet GeoTracker system](http://geotracker.waterboards.ca.gov/) (<http://geotracker.waterboards.ca.gov/>). Required data shall be submitted to the GeoTracker database under a site-specific global identification number. Any data will be made publicly accessible as machine readable datasets. The Discharger must report all applicable items listed below:

1. **Influent.** Monthly volume of wastewater collected and treated by the wastewater treatment plant.
2. **Production.** Monthly volume of wastewater treated, specifying level of treatment.
3. **Discharge.** Monthly volume of treated wastewater discharged to land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture of fields with harvested grounds.
4. **Reuse.** Monthly volume of recycled water distributed.

5. **Reuse Categories.** Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22 in each of the use categories listed below:
- a. Agricultural irrigation: pasture or crop irrigation.
 - b. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.
 - c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.
 - d. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.
 - e. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.
 - f. Geothermal energy production: augmentation of geothermal fields.
 - g. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.
 - h. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.
 - i. Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (Water Code § 13561).
 - j. Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system as defined in section 116275 of the Health and Safety Code (Water Code § 13561).
 - k. Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

A letter transmitting the monitoring reports, excluding the State Water Board Annual Volumetric Report, 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 Discharger or the Discharger'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 Discharger shall begin implementing the above monitoring program upon the rescission of WDRs Order 82-062.

Ordered by:

Original Signed by Scott Hatton for:
PATRICK PALUPA, Executive Officer

13 February 2020
(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
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.
Quarterly	Once per calendar quarter.
Semi-annually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliter



Central Valley Regional Water Quality Control Board

TO: Scott J. Hatton
Supervising Water Resource Control Engineer

FROM: Alexander S. Mushegan
Senior Water Resource Control Engineer
RCE 84208

Kathleen Carpenter
Engineering Geologist
PG 8014

DATE: 13 February 2020

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; FRESNO COUNTY SERVICE AREA 32; CANTUA CREEK WASTEWATER TREATMENT FACILITY, FRESNO COUNTY

BACKGROUND INFORMATION

Waste Discharge Requirements (WDRs) Order 82-062 regulates the discharge of treated domestic wastewater from Fresno County's (District or Discharger), County Service Area 32 Cantua Creek wastewater treatment facility (WWTF) in western Fresno County. Order 82-062 allows a flow of up to 61,000 gallons per day (gpd). WDRs Order 82-062 needs to be updated to ensure the discharge is consistent with Central Valley Water Board plans and policies.

On 24 September 2019, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) applying for coverage under State Water Resources Control Board's Order 2014-0153-DWQ *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The RWD includes a Form 200 and a technical report prepared and signed by Mr. Dale Siemer, a California registered engineer (RCE 59670). On 16 October 2019, the District submitted a supplement to the RWD addressing plans to upgrade the WWTF to allow for better maintenance of the system. Additional information on the proposed upgrade was submitted on 17 January 2020.

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

1685 E Street, Fresno, CA 93706 | www.waterboards.ca.gov/centralvalley

This memorandum provides a summary of Central Valley Water Board staff's review of the RWD and the applicability of the discharge to be covered under the General Order.

DESCRIPTION OF DISCHARGE

The WWTF is located on Assessor Parcel Number (APN) 045-06-05ST, section 3, Township 17 South, Range 15 East, Mount Diablo Base and Meridian (MDB&M) in Fresno County (see **Attachment A** of the Notice of Applicability [NOA]). The WWTF has about 87 connections consisting of residential units and an elementary school.

The WWTF consists of a lift station and three unlined ponds. According to the September 2019 RWD, wastewater from the lift station typically flows into the aerated treatment pond (Pond 1), bypassing the old communitor, which is no longer operating. After Pond 1, the wastewater flows via gravity to the disposal pond (Pond 3). Pond 2 was intended for expansion of the WWTF but is not in use and there is currently no way to discharge wastewater to Pond 2. A site plan of the WWTF is provided in **Attachment B** of the NOA.

The WWTF has a current design flow of 61,000 gpd. Current flows to the WWTF range from about 30,000 to 47,000 gpd. Order 82-062 allowed for expansion of the WWTF to handle flows up to 150,000 gpd. However, the expansion was never completed and there are currently no plans to expand the WWTF or increase flows over the current permitted limit of 61,000 gpd. The General Order states that WWTFs discharging under 100,000 gpd are eligible for coverage.

Pond 1 is currently overgrown with weeds and Tules. The District has recently received grant funding for WWTF improvements and plans to install a new bar screen up-stream of the ponds, construct a diversion to send the wastewater to Pond 2, and install an aeration system for Pond 2. In addition, a new flow meter will be installed in front of the bar screen to replace the existing flow meter at the lift station. Once construction is complete, Pond 1 will be allowed to dry out so the weeds and vegetation can be removed. Pond 1 will be retained to provide backup in case of an emergency or for maintenance on Pond 2. With a total capacity of about 1,561 million gallons, Pond 2 is slightly larger than the WWTF's existing aerated treatment pond (Pond 1) at 1,216 million gallons.

POTENTIAL THREAT TO WATER QUALITY

Water for the community is primarily surface water from the California Aqueduct. The nearest portion of the WWTF to the Aqueduct and the closest domestic supply well are approximately 190 feet and 2,600 feet, respectively. These distances meet the minimum setback requirements for impoundment of undisinfected secondary recycled water from Table 3: *Summary of Wastewater System Setbacks* of the General Order.

The WWTF consists of a single treatment pond with minimal aeration that provides a level of treatment consistent with advanced primary treatment. The operative *Water Quality Control Plan for the Tulare Lake Basin* (Tulare Lake Basin Plan) specifies effluent limitations for discharges of domestic wastewater to land in section 4.1.11.5 of the Basin Plan. For advanced primary treatment, the Basin Plan requires 60 to

70 percent removal or reduction to 70 mg/L, whichever is more restrictive, for both biochemical oxygen demand (BOD) and suspended solids. The Basin Plan states that advanced primary treatment is “satisfactory for smaller facilities in outlying or remote areas where the potential for odors and other nuisances are low”.

General Order, Finding 6 states, in part:

[The} General Order requires Dischargers to comply with all applicable Basin Plan Requirements, including any prohibitions and/or water quality objectives, governing the discharge. The Discharger must comply with any more stringent standards in the applicable Basin Plan. In the event of a conflict between the requirements of this General Order and the Basin Plan, the more stringent requirement prevails.

The effluent limitation for BOD in the Basin Plan of 70 mg/L is more restrictive than the effluent limit specified in the General Order of 90 mg/L for a wastewater pond system.

The existing Order 82-062 does not set a BOD effluent limit or require monitoring for BOD. However, a sample of the effluent collected during an inspection at the WWTF on 14 November 2018 reported a BOD of 18 mg/L, electrical conductivity of 1,100 umhos/cm, total dissolved solids of 550 mg/L, and total nitrogen of 44 mg/L. In addition, samples of the effluent collected at the nearby El Porvenir WWTF, which uses a similar air diffusing aeration system to what has been proposed as part of the WWTF upgrades, reports average BOD concentrations between 34 and 53 mg/L. Therefore, the District should be able to comply with the more stringent effluent limitation of 70 mg/L.

Based on recent United States Department of Agricultural (USDA) soil surveys, surface soils in the area of the WWTF is Panoche Clay Loam. According to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service, the percolation rate for this type of soil is approximately 88 minutes per inch (MPI). In Table 5: *Minimum Depth to Groundwater and Minimum Soil Depth from the Bottom of the Dispersal System*, of the General Order, the minimum depth to groundwater required for soils with percolation rates between 30 MPI and 120 MPI is 5 feet below surface grade (bsg). With depth-to-groundwater in the area greater than 300 feet bsg, based on Department of Water Resources Interactive Groundwater Maps for Fall 2017, the discharge area meets this requirement.

NITROGEN LIMIT EVALUATION

Attachment 1 of the General Order includes five site-specific conditions to be considered when evaluating a discharge and the need for nitrogen control. These five site-specific conditions include: flow, groundwater depth, percolation rate, wastewater strength, and if nitrogen is of concern in the area. The proposed flow is greater than 20,000 gpd and, therefore, a nitrogen effluent limit evaluation is required for the WWTF.

As mentioned previously, the predominant soil type in the vicinity of the WWTF is Panoche Clay Loam. With a percolation rate of approximately 88 MPI and depth-to-groundwater greater than 300 feet bgs, the WWTF does not meet the conditions for shallow groundwater or excessive percolation.

Influent and effluent monitoring for nitrogen was not required by Monitoring and Reporting Program 82-062. According to the RWD, wastewater quality at the WWTF does not exceed typical domestic wastewater strength. As discussed above, a sample of the effluent collected at the WWTF on 14 November 2018 reported a total nitrogen concentration of 44 mg/L (nitrates [as N] of 1.1 mg/L and total Kjeldahl nitrogen of 43 mg/L).

The RWD did not provide a summary of the groundwater quality for nitrogen in the area. However, historical groundwater data from wells within a two-mile radius of the WWTF are shown in Table 1 below. Groundwater data was obtained from the California Department of Water Resources Water Data Library portal (Well 1: 16S15E18Q001M) and the State Water Resources Control Board Geotracker Gama database (Well 2: 16S15E35N002M, Well 3 01.96802322, Well 4: 16S15E35D001M, and Well 5: 17S15E01N001M).

Table 1 - Groundwater Quality from Nearby Wells

Parameter	Units	Well 1 (6/2008)	Well 2 (8/1951)	Well 3 (7/1968)	Well 4 (8/1951)	Well 5 (8/1951)
Total Alkalinity	mg/L	---	236	90	174	182
Boron	mg/L	---	0.8	2.1	1.5	1.1
Calcium	mg/L	---	115	28	175	111
Chloride	mg/L	78	46	60	58	65
Electrical Conductivity	umhos/cm	1,517	1,860	1,370	2,450	1,700
Total Dissolved Solids	mg/L	1,150	---	700	---	
Magnesium	mg/L	---	133	12	192	125
Nitrate (as N)	mg/L	1.4	---	<1	13.1	3.6
Sodium	mg/L	---	125	260	168	124
Sulfate	mg/L	611	836	470	1,260	723
pH	pH Units	---	7.1	8.2	8.2	8.0

The groundwater data above demonstrates that underlying groundwater is of poor quality with respect to salinity with EC ranging from 1,370 to 2,450 umhos/cm. For nitrogen, underlying groundwater appears to be relatively good with concentrations of nitrate (as N) ranging from <1 to 13.1 mg/L, and there are no sensitive receptors within one mile of the WWTF. In addition, flows at the WWTF will reportedly not increase above the currently permitted flow of 61,000 gpd.

Based on 1) percolation rate and depth to groundwater, 2) strength of influent domestic wastewater (not expected to exceed typical domestic strength), 3) continued nitrogen monitoring to evaluate the discharge and its potential impacts to groundwater, and 4) no future plans to increase growth within the District, the discharge is not expected to significantly impact underlying groundwater for nitrogen. Therefore, based on the nitrogen effluent limit evaluation prescribed in the General Order (Attachment 1) a

nitrogen effluent limit for the WWTF is not necessary at this time. The NOA will include a more robust monitoring schedule that requires nitrogen monitoring to better characterize the wastewater.

MONITORING REQUIREMENTS

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

- Pond System Monitoring
- Solids Disposal Monitoring

SALT AND NITRATE CONTROL PROGRAMS

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments. Upon receipt of the Notice to Comply, the District will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). For the Nitrate Control Program, the WWTF falls within Groundwater Basin 5-22.09 (San Joaquin Valley – Westside) a non-prioritized basin/sub-basin. Implementation within a non-prioritized basin/sub-basin will occur as directed by the Central Valley Water Board Executive Officer.