



Central Valley Regional Water Quality Control Board

17 June 2021

Michael Pucheu, Chairperson
Tranquillity Public Utilities District
P.O. Box 622
Tranquillity, California 93668

CERTIFIED MAIL
7019 2970 0001 5201 5830

NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5361, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; TRANQUILLITY PUBLIC UTILITIES DISTRICT; TRANQUILLITY WASTEWATER TREATMENT FACILITY; FRESNO COUNTY

On 26 July 2019, the Tranquillity Public Utility District (Discharger) submitted a Report of Waste Discharge (RWD) consisting of a Form 200 and technical report for the Tranquillity Wastewater Treatment Facility (Facility or WWTF). The Discharger is requesting coverage under 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 Report of Waste Discharge (RWD) included a completed and signed Form 200 and a technical report prepared and signed by Michael L. Giersch (RCE 38160) and Kenneth F. Hutchings (RCE 42304) with Giersch & Associates, Inc.

Based on the information provided and a review of available information, the Facility treats and disposes of less than 100,000 gallons of domestic wastewater per day and is therefore eligible for coverage under the General Order. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described. You are hereby assigned General Order **2014-0153-DWQ-R5361** for your system. Coverage under General Order 2014-0153-DWQ will become effective after Waste Discharge Requirements Order 80-081 has been rescinded.

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-R5361**. This MRP was developed after

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

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

consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

Tranquillity, California is recognized as a Census Designated Place by the U.S. Census Bureau. According to the 2010 U.S. Census, Tranquillity has an estimated population of 799 people and a housing stock of 271 units.

The WWTF consists of six stabilization ponds, which operate in series. Influent enters Pond 3 and overflows to Ponds 2, 1, 4, 5, and 6. Two additional ponds referred to as Irrigation Lagoons A and B are also available for discharge.

FACILITY SPECIFIC REQUIREMENTS AND EFFLUENT LIMITATIONS

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-R5361.

In accordance with Section B.1 of the General Order, the **monthly average influent flow to the Facility shall not exceed 100,000 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.

The Discharger is not authorized to reclaimed treated wastewater (e.g., land application of treated wastewater for crop irrigation) until the Discharger submits a Title 22 Engineering Report to the State Water Resources Control Board, Division of Drinking Water (DDW) (and receives approval from DDW) and submits a revised Report of Waste Discharge proposing the change in discharge.

The General Order states in Section B.1 that the Discharger shall comply with the setbacks as 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	Property Line
Impoundment (undisinfected secondary recycled water)	150 ft.	80 ft. (see 1 below)	50 ft.
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System	50 ft.	50 ft.	5 ft.

- 1 See the enclosed staff memorandum regarding the setback distance of 80 feet from a flowing stream.

The Discharger shall comply with all applicable sections in the General Order, including:

1. Pond system requirements specified in Section B.5 of the General Order;
2. Solids/Solids/Biosolids Disposal requirements specified in Section B.8 of the General Order; and
3. Groundwater and Surface Water Limitations specified in Section C.1 of the General Order.

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 (**15 September 2021**):

- 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)

The General Order requires that the Sludge Management Plan be submitted to the Central Valley Water Board within **90 days** of the issuance of the NOA (**15 September 2021**). A copy of the Spill Prevention and Emergency Response Plan and the Sampling and Analysis Plan shall be maintained at the treatment facility and shall be presented to the Regional Water Board staff upon request.

As stated in Section E.2.w., 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 Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) Executive Officer.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ-R5361, with all attachments, and MRP No. 2014-0153-DWQ-R5361 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.

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (i.e., Salt and Nitrate Control Programs) as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (**CV-SALTS**) initiative. These Basin Plan alternatives became effective on 17 January 2020. As required by the

Notice to Comply (CV-SALTS ID: 2734), you must submit a Notice of Intent by 15 July 2021 informing the Central Valley Water Board of your choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). Further details of the Salt and Nitrate Control Programs are discussed in the enclosed memorandum. For more information regarding the Salt and Nitrate Control Program, you are encouraged to go to the [CV-SALTS Info Webpage](https://www.cvsalinity.org/public-info) (<https://www.cvsalinity.org/public-info>).

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.

All regulatory documents, submissions, materials, data, monitoring reports, and 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: 273195,
Facility Name: Tranquillity WWTF,
Order: 2014-0153-DWQ-R5361

All documents, including responses to inspections and written notifications, 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 Small Domestic General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Mr. Daniel Benas. Mr. Benas can be reached at (559) 445-5500 or Daniel.Benas@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, sections 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 Order 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 or will be provided upon request.

(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

In order to conserve paper and reduce mailing costs, a paper copy of the General Order has been sent only to the Discharger. Others are advised that the [General Order](#) is available on the State Water Board's website:

(http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf).

WDRs Order 80-081 is proposed to be rescinded at the August 2021 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 Daniel Benas by phone at (559) 445-5500, by email at Daniel.Benas@waterboards.ca.gov.

Original Signed by Clay L. Rodgers for:
Patrick Pulupa
Executive Officer

(see next page for Attachments, Enclosures, and cc's)

- Attachments:
- Attachment A – Vicinity Map
 - Attachment B – Facility Map
- Enclosures:
- Monitoring and Reporting Program 2014-0153-DWQ-R5361
 - Review Memorandum of Tranquillity PUD, Tranquillity Wastewater Treatment Facility
 - State Water Resources Control Board WQ 2014-0153-DWQ (Discharger Only)
- cc:
- David Lancaster, State Water Resources Control Board, OCC, Sacramento (via email)
 - Laurel Warddrip, State Water Resources Control Board, DWQ, Sacramento (via email)
 - Russell Walls, Senior Engineer, Central Valley Water Board, Compliance and Enforcement Unit, Fresno (via email)
 - Adam Forbes, State Water Resources Control Board, DDW, Fresno (via email)
 - Michael Pucheu, Tranquillity Public Utility District (via email)
 - Michael Giersch, Giersch & Associates, Inc. (via email)
 - Kenneth Hutchings, Giersch & Associates, Inc. (via email)
 - Louis Mendoza, Chief Plant Operator (via email)
 - Debbie Webster, Central Valley Clean Water Association, Sacramento (via email)



Drawing Reference:
Google Earth
Map Data: © 2019



0 0.25 0.5



Approximate Distance in Miles

Attachment A
Vicinity Map
Tranquillity PUD
Tranquillity WWTF
Fresno County



Drawing Reference:
Google Earth
Map Data © 2019



0 250 500

Approximate Distance in Feet

Attachment B
Facility Map
Tranquillity PUD
Tranquillity WWTF
Fresno County

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

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5361
FOR
TRANQUILLITY PUBLIC UTILITY DISTRICT
TRANQUILLITY WASTEWATER TREATMENT SYSTEM
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. Tranquillity Public Utility District (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 and 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 the Tranquillity Wastewater Treatment Facility that is subject to the Notice of Applicability (NOA) 2014-0153-DWQ-R5361 enrolling the Facility under State Water Resources Control Board (State Water Board) Water Quality

Order 2014-0153-DWQ, *General Water Discharger Requirements for Small Domestic Wastewater Treatment Systems* (General Order) upon rescission of WDRs Order 80-081. 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.

POND SYSTEM MONITORING

Influent Monitoring

Influent samples shall be taken from a location that provides representative samples of the wastewater and flow rate prior to entering the treatment ponds. At a minimum, influent monitoring shall consists of the following:

Table 1 – Influent Monitoring

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered	Continuous	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
BOD	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Annually	Annually

Effluent Monitoring

Effluent samples shall be taken from the last lagoon in the treatment train that contains wastewater. At a minimum, effluent monitoring shall consist of the following:

Table 2 – Effluent Monitoring

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
pH	s.u.	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
BOD	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Annually

Wastewater Pond Monitoring

All wastewater treatment and disposal ponds shall be monitored as specified below:

Table 3 – Pond Monitoring

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

- DO shall be measured between 8:00 am and 10:00 am and shall be taken opposite the pond inlet at a depth of approximately one foot, when there is sufficient water in the pond(s). If there is insufficient water in the pond(s) no sample shall be collected and the reason provided in the quarterly monitoring report. Should the DO be below 1.0 mg/L during a monthly sampling event, the Discharger shall take all reasonable steps to correct the problem and commence daily DO monitoring in the affected ponds until the problem has been resolved.

SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, ect) 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.

All regulatory documents, submissions, materials, data, monitoring reports, and 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 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: 273195,
Facility Name: Tranquillity WWTF,
Order: 2014-0153-DWQ-R5361

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.
2. A comparison of monitoring data to the requirements (including the flow limitation), 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 February 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 nuisances' 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. 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.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. 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. 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 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 the first day of the month following rescission of WDRs Order 80-081.

Ordered by:

Original Signed by Clay L. Rodgers for:
PATRICK PALUPA, Executive Officer

6/17/2021
(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 eight aliquots	Samples shall be a flow-proportioned composite consisting of at least 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.
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
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
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
NA	Denotes not applicable

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

Daniel B. Benas
Water Resource Control Engineer

DATE: 17 June 2021

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER DISCHARGE SYSTEMS; TRANQUILLITY PUBLIC UTILITY DISTRICT; TRANQUILLITY WASTEWATER TREATMENT FACILITY; FRESNO COUNTY

On 26 July 2019, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) consisting of a Form 200 and Technical Report for the Tranquillity Public Utility District (PUD) Wastewater Treatment Facility (WWTF or Facility) in Fresno County. The technical report was prepared and signed by Michael L. Giersch (RCE 38160) and Kenneth F. Hutchings (RCE 42304) with Giersch & Associates, Inc. This memorandum provides a summary of the applicability of this discharge to be covered under State Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order).

BACKGROUND INFORMATION

The Tranquillity PUD owns and operates the Tranquillity WWTF, which treats and disposes domestic wastewater from the unincorporated community of Tranquillity. The Facility is located near South James Road and South Levee Road about half a mile northeast of Tranquillity in Fresno County. The site is in Section 4, Township 15 South, Range 16 East Mount Diablo Baseline and Meridian (MDB&M). The Facility is currently regulated by Waste Discharge Requirements Order 80-081.

A 30 August 2016 Notice of Violation (NOV) cited the Discharger in violation of WDRs Order for (1) not maintaining its clarifier in good working order, (2) for collecting

effluent samples at a location inconsistent with the requirements of the MRP, and (3) for exceeding the effluent electrical conductivity (EC) limit. In a 27 September 2016 letter, Giersch & Associates, Inc. responded to the NOV on behalf of the Discharger; in part, the response stated that the clarigester was no longer functioning and recommended the Order be amended to allow the treatment via the facultative ponds. The response letter also recommended the District install a bar screen but states that due to limited funding that the District would need to obtain grant funding. The RWD does not indicate a bar screen was installed since the NOV response letter was received.

An 11 January 2017 Giersh and Associates, Inc. email requested a reduction in monitoring frequency from three times per week to weekly for daily flow, EC, settleable matter and dissolved oxygen. A revised MRP was issued for the facility on 26 April 2017.

DESCRIPTION OF DISCHARGE

The Facility consists of six stabilization ponds which operate in series. Influent enters Pond 3 and overflows to ponds 2, 1, 4, 5, and 6. Two additional ponds referred to as Irrigation Lagoons A and B are designed to supply irrigation water to a nearby reclamation area, although the RWD reports that the irrigation area hasn't been used since at least 2010. The RWD states that Lagoon A is occasionally used for discharge. The RWD does not propose to retain use of the former reclamation area.

The RWD indicates that that the population served by the WWTF has remained fairly stable and that the wastewater flow for the period 2016 through 2018 was also stable, averaging 53,300 gallons per day. During 2020, the monthly flow averaged 0.058 million gallons per day; however, the dataset was missing the month of April due to the flow meter being out of service. The minimum and maximum average monthly flows during 2020 were 0.045 and 0.073 million gallons per day in May and August, respectively. The RWD requests an effluent flow limit of 70,000 gpd; however, it also states that the Facility was designed for a flow rate of 120,000 gpd, which is the flow limit in the current WDRs. In a 7 June 2021 email, Kenneth Hutchings of Giersch and Associates states that the lack of flow data for April 2020 was due to a lift station upgrade which required a bypass of the lift station for a short period of time. Mr. Hutchings further explains that a new flow meter was installed at the conclusion of the upgrade project and that influent flow to the WWTF averaged 62,000 gpd for the period June 2020 through December 2020. During the month of August 2020, the monthly average daily flow rate was 72,600 gpd. Staff recommends issuing the Notice of Applicability with a monthly average daily flow limit of 100,000 gallons per day.

In accordance with the requirements in the General Order, discharges with flow rates greater than 20,000 gallons per day are required to conduct a nitrogen evaluation. Based on the following information (from the RWD and 28 April 2016 Facilities Inspection Report) and the guidelines in Attachment 1 of the General Order, no nitrogen limit is recommended for the Facility discharge at this time:

- Flow rate exceeds 20,000 gpd.
- The discharge of advanced primary-treated wastewater to the unlined oxidation lagoons do not meet the definition of shallow groundwater or excessive percolation rate from Table 5 of the General Order. The soil percolation rate is approximately 0.06 feet per day (0.72 inches per day), and the approximate groundwater depth is 75 feet below ground surface based on Department of Water Resources (DWR) maps of the area.
- The effluent sample result reported in the 28 April 2016 Facilities Inspection Report shows a total nitrogen concentration of 22 mg/L. Total Kjeldahl nitrogen was 22 mg/L and nitrate (as N) was 0.064 mg/L (estimated).
- Due to the slow percolation rate and depth to groundwater, it is possible that nitrification and denitrification in the vadose zone will adequately attenuate nitrogen in the percolate from the oxidation lagoons.
- The Tranquillity WWTF lies within a non-prioritized basins/sub-basin and will receive a Notice to Comply with the Nitrate Control Program in the future as directed by the Central Valley Water Board Executive Officer. See Salt and Nitrate Control Programs section below for more information.

Waste Discharge Requirements Order 80-081 includes the following limits:

- 30-day average dry weather flow limit of 0.12 million gallons per day (mgd)
- Biochemical oxygen demand (BOD) limits – 40 mg/L (30-day average) and 80 mg/L (daily maximum)
- Settleable matter limits – 0.2 ml/L (30-day average) and 1 ml/L (daily maximum)
- Pond dissolved oxygen limit of not less than 1.0 mg/L for 16 hours in any 24-hour period.

POTENTIAL THREAT TO WATER QUALITY

Table 1 below provides characterization of the effluent BOD, dissolved oxygen, and EC for the period 2016 through 2020. According to the Facility operator, effluent samples were taken from the far end of oxidation lagoon 2.

Table 1 – Effluent Data (2016-2018)

Year	BOD (mg/L)	EC (µmhos/cm)	TSS (mg/L)
2016	50	2,650	153
2017	60	2,350	137
2018	70	2,190	165

Year	BOD (mg/L)	EC (µmhos/cm)	TSS (mg/L)
2019	88	2,143	98
2020	75	2,138	96
Minimum	20	1,820	39
Maximum	170	3,620	490

BASIN PLAN REQUIREMENTS

The *Water Quality Control Plan for the Tulare Lake Basin*, Third Edition, revised May 2018 (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 60-70 percent removal or reduction to 70 mg/L, whichever is more restrictive, for BOD. The Basin Plan states that advanced primary treatment is “satisfactory for smaller facilities in outlying or remote area 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 BOD effluent limitation in the Basin Plan of 70 mg/L is more restrictive than the 90 mg/L BOD effluent limitation specified in the General Order for a wastewater pond system. Therefore, the more stringent effluent limitation will apply; however, the BOD effluent limit will only apply if wastewater is discharged to a land application area or subsurface disposal area as specified in the General Order. Note the Facility currently discharges only to disposal ponds so this limit is not currently applicable but is applicable if the Discharger pursues land application disposal or subsurface disposal in the future.

SETBACKS

Potable water for the community is provided by the Tranquillity Irrigation District. According to the 2018 Consumer Confidence Report, the Tranquillity Irrigation District has two wells, City Well #6 and #7 located near the intersection of Colorado Road and South Contra Costa Road which is approximately 4,600 feet to the south of the treatment facility. These distances meet the setback requirements for impoundment of undisinfected secondary recycled water from *Table 3: Summary of Wastewater System Setbacks of the General Order* (Table 3).

Table 3 requires wastewater treatment ponds to have a setback distance of 150 feet from a flowing stream. The Fresno Slough is approximately 80 feet to the east of stabilization ponds 1 – 4. According to the General Order, this setback distance is based on best professional judgement and not based on specific regulatory requirements (e.g., Title 22, plumbing code, etc.). General Order Section B.1.I.v. allows setbacks not based on a regulatory requirement be revise by the Regional Water Board Executive Officer on site-specific conditions. The Information Sheet for the current WDRs Order indicates that at the time of adoption that the Facility was near the completion of a Clean Water Grant Project to provide the original design capacity and replace deteriorating treatment facilities and that several cases of discharge to Fresno Slough were documented as violations of its previous WDRs. A review of the case file did not reveal any discharges to the Fresno Slough since modifications to the Facility were completed. Therefore, the current setback distance of 80 feet is appropriate.

MONITORING REQUIREMENTS

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

- Pond Monitoring, and
- 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.

Tranquillity PUD was issued a Notice to Comply (NTC) for the Salinity Control Program on 5 January 2021. The NTC requires the Discharger to submit a Notice of Intent by 15 July 2021 informing 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 in Groundwater Basin 5-022.07 (San Joaquin Valley - Mendota), 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. More information related to the Salt and Nitrate Control Programs can be at the [CV-SALTS Website](https://www.cvsalinity.org/public-info) (https://www.cvsalinity.org/public-info).

RECOMMENDATION

Staff proposes to enroll the Facility under the General Order, incorporating a monthly average daily flow limit of 100,000 gallons per day.