



Central Valley Regional Water Quality Control Board

8 August 2024

Chad Brown
Madera County
200 W. 4th Street, Suite 3100
Madera, CA 93637

CERTIFIED MAIL
7020 2450 0000 6785 4248

NOTICE OF APPLICABILITY; STATE WATER RESOURCES CONTROL BOARD ORDER WQ-2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; MADERA COUNTY MAINTENANCE DISTRICT #19; PARKWOOD WASTEWATER TREATMENT FACILITY; MADERA COUNTY

On 26 July 2023, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) received a Report of Waste Discharge (RWD) requesting coverage under State Water Resources Control Board Order WQ-2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order), for the Madera County Maintenance Division #19, Parkwood Wastewater Treatment Facility (Parkwood WWTF). The RWD was prepared and signed by Craig R. Wagner (C041221), a registered professional civil engineer with the California Rural Water Association, on behalf of Madera County Maintenance Division #19 (hereafter referred to as County or Discharger). A Form 200 was submitted on 23 January 2023 and signed by Utility Manager Chad Brown.

Based on the information provided in the RWD, the Parkwood WWTF treats and disposes of less than 100,000 gallons per day (gpd) of domestic wastewater and is therefore eligible for coverage under the general and specific conditions of the General Order. 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 enrollee number **2014-0153-DWQ-R5412** for your system. Coverage under the General Order will become effective immediately following rescission of WDRs Order 85-109. WDRs Order 85-109 is tentatively scheduled for rescission at the Central Valley Water Board's 18 October 2024 Board Meeting.

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

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

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

treatment system sections of the General Order and the attached Monitoring and Reporting Program (MRP) No. **2014-0153-DWQ-R5412**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The Parkwood WWTF is located on the southeastern edge of the City of Madera, about a mile west of Highway 99, one-half mile north of Avenue 12, and about a quarter mile east of Highway 145 in Madera County as shown on Attachment A - Site Location Map.

Wastewater is generated from a 250-home community, and a small commercial shopping center. The Parkwood WWTF consists of a wet/dry well followed by a manual bar screen, aeration tank, clarifier, and sludge drying beds prior to wastewater disposal in one of three unlined percolation/evaporation ponds as shown on Attachment B - Site Plan Map.

The domestic wastewater is not metered, and the flow rates are estimated using pump run times. The RWD indicates flows are about 23,000 gpd, averaging 22,688 gpd. The file record indicates there may have been some issues with inflow and infiltration at the WWTF during January 2023, with reported flows up to 0.296 million gallons per day. The Discharger indicated that the high reported flows are overestimations due to increased run times of the old, inefficient pumps (see the attached memorandum for further discussion). This NOA includes a requirement for the Discharger to evaluate the method of recording/estimating the volume of wastewater processed by the WWTF.

The Parkwood WWTF is near the City of Madera WWTF, which is located at the northwest corner of Road 21 ½ and Avenue 13. The RWD notes that the City of Madera collection system runs parallel to the 16,000 lineal foot Parkwood WWTF collection system and notes that some roads have both Parkwood and City of Madera collection system lines. The Parkwood WWTF collection system was constructed in the 1950's. The RWD indicates the mains rarely have conveyance issues, but laterals constructed with Orangeburg pipe (a bituminous fiber pipe) are past the 30-to-50-year life expectancy and have frequent tree root intrusions and collapses. A flow diagram for the Parkwood WWTF is presented on Attachment C, Process Flow Diagram.

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 Notice of Applicability (NOA), General Order 2014-0153-DWQ, all attachments, and MRP No. 2014-0153-DWQ-R5412.

In accordance with Section B.1.a of the General Order, the monthly average total discharge from the WWTF to the percolation pond **shall not exceed 100,000 gpd**.

The General Order states in Section D that discharge shall not exceed the applicable effluent limitations as described in Table 4 of the General Order. Table 1 below

summarizes the applicable 5-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS) effluent limitations for the Facility's discharge to the Ponds.

Table 1 Effluent Limitations

Constituents	Units	Monthly Average	7-Day Average
BOD ₅	mg/L	30	45
TSS	mg/L	30	45

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 Table 2 below:

Table 2 – Site Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well (feet)	Flowing Stream (feet)	Ephemeral Stream Drainage (feet)	Property Line (feet)	Lake or Reservoir (feet)
Septic Tank, Treatment Unit, Treatment System, or Collection System	150	50	50	5	200
Impoundment (undisinfected secondary recycled water)	150	150	150	50	200

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

- Section B.4 - Activated Sludge Systems
- Section B.5 - Pond Systems
- Section B.8 - Sludge/Solids/Biosolids Disposal

Provision E.1 of the General Order requires enrolled dischargers to prepare and implement the following reports **by 90 days** of issuance of the NOA:

- 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 and the Sampling and Analysis Plan, and Sludge Management Plan shall be maintained at the Parkwood WWTF 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 **by 6 November 2024.**

In addition to the plans requested above, the Discharger needs to evaluate the discrepancy in the estimated daily flows (approximately 64,000 gpd in 2023) reported in monthly monitoring reports for 2023, and the average daily flow reported in the RWD (22,688 gpd). By **10 February 2025**, the Discharger shall submit a Work Plan that evaluates the accuracy of the current method for measuring Facility flows. The Work Plan shall provide a timeline for making the necessary modifications to the Facility's flow measuring method (if needed) to ensure the Discharger is collecting and reporting accurate flow data

As stated in Section E.2.w., in the event any change in control or ownership of the Parkwood WWTF, 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.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and **MRP No. 2014-0153-DWQ-R5412** could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of waste 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. If wastewater flows to the WWTF substantially increase or the evaluation of increased flows for 2023 indicate a more accurate flow rate, the Central Valley Water Board staff must be contacted to determine if further analysis is required.

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 Programs are met.

All monitoring reports and other 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 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: 201067

Facility Name: Madera County #19 - Parkwood WWTF

Order: 2014-0153-DWQ-R5412

All documents, including responses to inspections and written notifications, submitted to comply with this NOA shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Omar Mostafa. Mr. Mostafa can be reached at (559) 445-5197 or Omar.Mostafa@waterboards.ca.gov. Questions regarding the permitting aspects of the NOA, 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 Jeff Pyle. Mr. Pyle can be reached at (559) 445-5145 or by email at Jeffrey.Pyle@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 at [Copies of the laws and regulations applicable to filing petitions](https://www.waterboards.ca.gov/public_notices/petitions/water_quality) (https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request. If you have any questions regarding this matter, please contact Jeff Pyle by phone at (559) 445-5145 or by email at Jeffrey.Pyle@waterboards.ca.gov.

In order to conserve paper and reduce mailing costs, a paper copy of General Order WQO 2014-0153-DWQ 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).

Original Digitally Signed by Alexander S. Mushegan
For Patrick Pulupa
Executive Officer

(See next page for attachments, enclosures, and cc's)

Attachments:

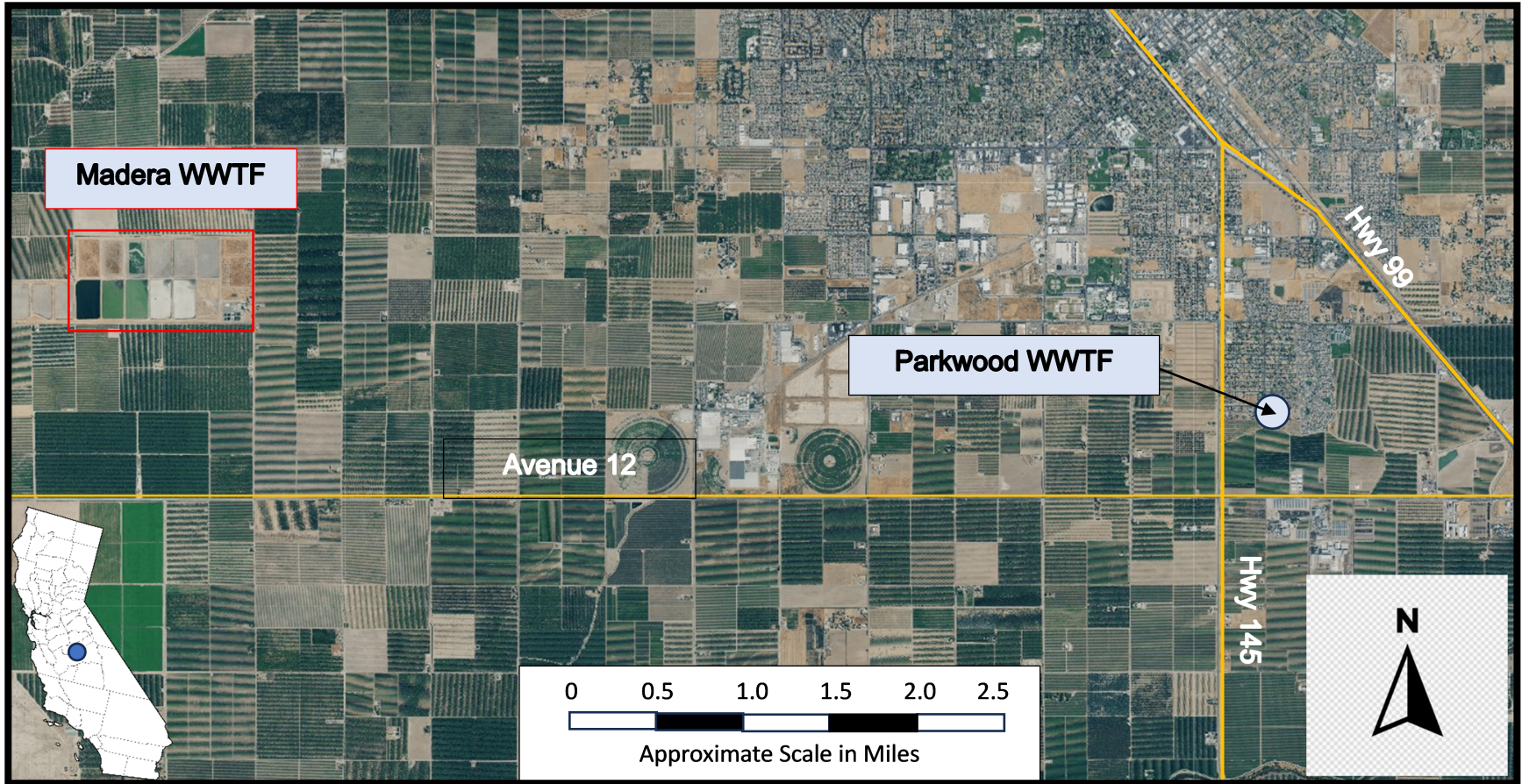
- Attachment A – Site Location Map
- Attachment B – Site Plan Map
- Attachment C – Process Flow Diagram

Enclosures:

- Monitoring and Reporting Program 2014-0153-DWQ-R5412
- Staff Review Memorandum for Madera County Maintenance Division #19, Parkwood WWTF
- State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger only)

cc's

- Kennedy Knight, State Water Resources Control Board, OCC, Sacramento (via email)
- Laurel Warddrip, State Water Resources Control Board, Division of Water Quality, Sacramento (via email)
- Omar Mostafa, Central Valley Water Board, Fresno (via email)
- Orlando Gonzalez, State Water Resources Control Board, Division of Drinking Water, (via email)
- Madera County Department of Public Works (via email)
- Chad Bown, Madera County, Utility Manager (via email)
- Craig Wagner, Madera County, Public Works Engineering Services (via email)
- Jason Mitchell, Madera County, Public Works Maintenance and Operations (via email)



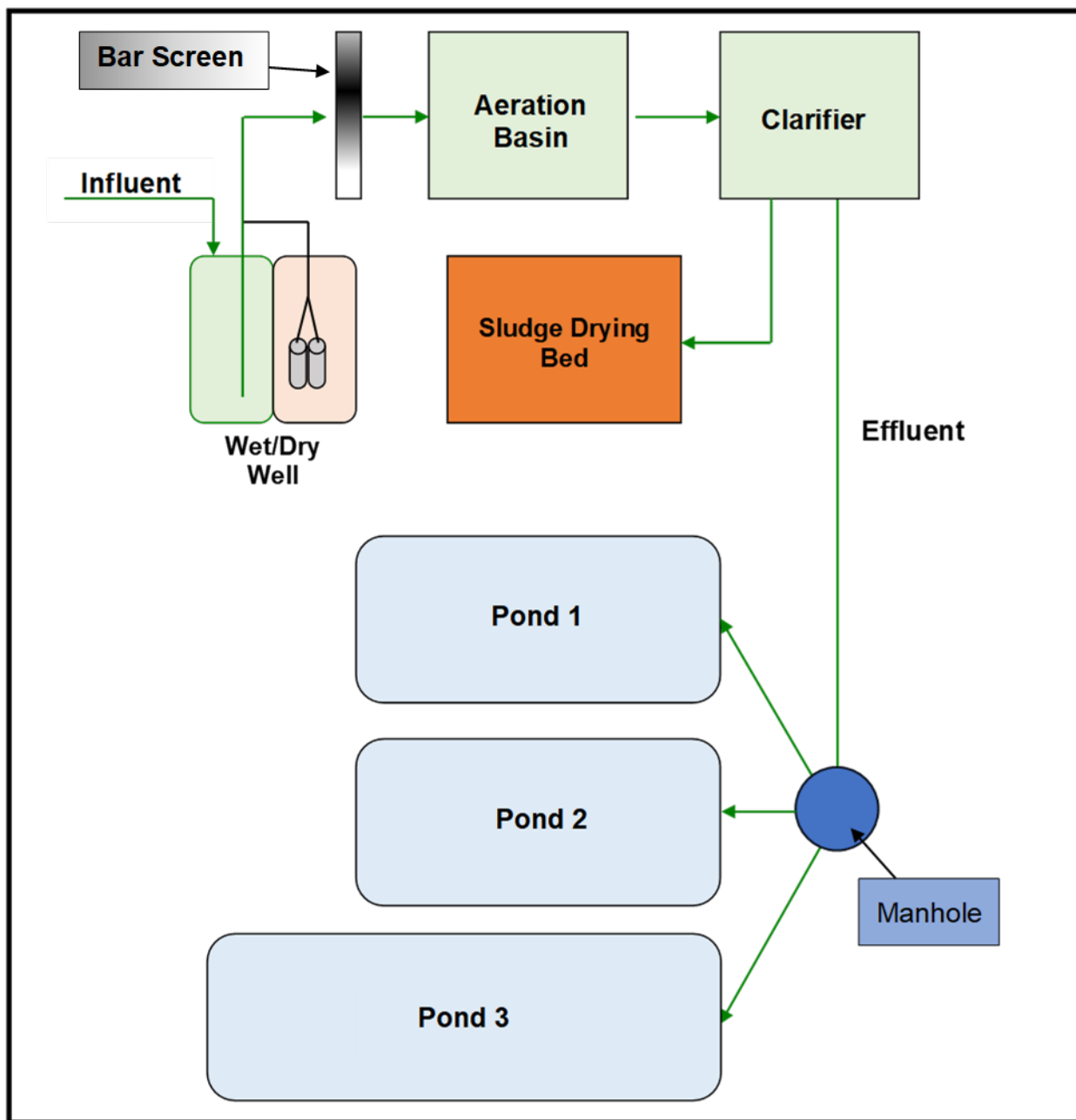
ATTACHMENT A – SITE LOCATION MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5412



ATTACHMENT B – SITE PLAN MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5412



ATTACHMENT C – PROCESS FLOW DIAGRAM

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5412

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

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5412
FOR
MADERA COUNTY MAINTENANCE DISTRICT #19
PARKWOOD WASTEWATER TREATMENT FACILITY
MADERA COUNTY**

This Monitoring and Reporting Program (MRP) describes requirements for the Madera County Maintenance District #19 Parkwood Wastewater Treatment System (WWTF). This MRP is issued pursuant to Water Code section 13267. Madera County Maintenance District #19 (hereafter referred to as County or 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 the WWTF that is subject to the Notice of Applicability (NOA) 2014-0153-DWQ-R5412, which enrolls the WWTF under State Water Resources

Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order) upon the rescission of Waste Discharge Requirements (WDRs) Order 85-109. The reports required in this MRP 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.

ACTIVATED SLUDGE TREATMENT SYSTEM MONITORING

Effluent Monitoring

Effluent samples shall be taken from a location following treatment but prior to discharge into the pond or ponds that provide representative samples of the wastewater. At a minimum, influent monitoring shall consist of the following:

Table 1 – Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	mgd	Meter (see 1 below)	Continuous (see 2 below)	Quarterly
pH	Standard pH Units	Grab	Monthly	Quarterly
BOD ₅	mg/L	Grab	Monthly	Quarterly

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
TSS	mg/L	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Monthly	Quarterly

1. Flow rate may be metered or estimated based on potable water supply meter readings or other approved method.
2. For continuous analyzers, the Discharger shall document routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation.

Wastewater Pond Monitoring

All wastewater and treated wastewater storage ponds (lined and unlined) shall be monitored as specified below.

Table 2 – Wastewater Pond Monitoring

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Dissolved Oxygen	mg/L	Grab	Monthly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Odors	---	Observation	Monthly	Quarterly
Berm Condition	---	Observation	Monthly	Quarterly

SOLIDS DISPOSAL MONITORING

The Discharger shall report on the handling and disposal of all solids (e.g. screenings, grit, sludge, biosolids, etc.) generated at the wastewater treatment facility. 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: 201067
Facility Name: Madera County #19 Parkwood WWTF
Order: 2014-0153-DWQ-R5412

1. 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).
4. A copy of the logs from the wastewater collection system observations conducted during the quarter. The Discharger shall note whether repairs were conducted or need to be conducted.

2. 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.

3. 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.

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 on the first day of the month following rescission of WDRs Order 85-109.

Ordered by:

*Original Digitally Signed by Alexander S.
Mushegan*
For PATRICK PULUPA, Executive Officer

8 August 2024
(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
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
Weekly	Once per week
Monthly	Once per calendar month
Quarterly	Once per calendar quarter
Annually	Once per year
mg/L	Milligrams per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
NA	Denotes not applicable

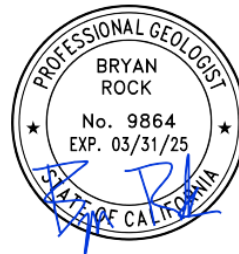


Central Valley Regional Water Quality Control Board

TO: Alexander S. Mushegan
Supervising Water Resource Control Engineer

FROM: Bryan Rock
Senior Engineering Geologist
PG 9864

Jeffrey S. Pyle
Engineering Geologist
PG 7375



DATE: 8 August 2024

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; MADERA COUNTY MAINTENANCE DIVISION #19, PARKWOOD WASTEWATER TREATMENT FACILITY; FRESNO COUNTY

On 26 July 2023, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a *Technical Report per the Attachment B1 of the General Order* or Report of Waste Discharge (RWD) prepared by the California Rural Water Association for the Parkwood Wastewater Treatment Facility (WWTF) on behalf of the Madera County (Discharger) Maintenance Division #19. The RWD was stamped and signed by Craig R. Wagner (RCE 41221) of the California Rural Water Association. Central Valley Water Board staff requested the submittal of the RWD in an 8 June 2022 letter (Directive) sent to the Discharger, in accordance with Water Code, Section 13260. The Directive indicated the WWTF was eligible for coverage under the State Water Resources Control Board's Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Systems (General Order). The Parkwood WWTF is currently regulated under Waste Discharge Requirements (WDRs) 85-109.

This memorandum provides a summary of Central Valley Water Board staff's review of the July 2023 RWD, and other provided documents, and the applicability of the Facility's discharge to be covered under the General Order.

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

BACKGROUND INFORMATION

The Parkwood residential development was built in the 1950's and the collection system delivers wastewater from eight subdivisions that contain 250 homes and a small commercial shopping center. The WWTF is on the Madera Quadrangle, 7.5 Minute Topographic Map, within Section 31, Township 11 south, Range 17 east (36.93092, -120.04897). The WWTF, and the 7.2-acre Assessor Parcel Number 047-014-001-000 that contains the Parkwood WWTF are owned and operated by the Discharger.

The WWTF is currently regulated by Waste Discharge Requirements Order 85-109 (WDRs), which allows a discharge up to 0.1 mgd. Average reported flows from January 2022 through September 2023 were 0.061 mgd, which meets eligibility criteria for coverage under the General Order.

The onsite WWTF consists of a wet/dry well followed by a manual bar screen, an aeration tank, a clarifier, sludge drying beds, and three unlined effluent evaporation/percolation ponds. The dimensions and capacities of the components of the WWTF are shown in Table 1 below.

Table 1 – WWTF Component Construction Details and Capacities

Equipment	Length (feet)	Width (feet)	Height (Feet)	Capacity (Gallons)
Aeration Basin	35	35	20	183,260
Clarifier	35	10	20	52,360
Pond 1	400	125	6	2,244,000
Pond 2	400	125	6	2,244,000
Pond 3	540	80	6	1,938,952
Sludge Bed	85	80	6	305,184

All wastewater is pumped to a wet/dry well equipped with two 7.5-horsepower pumps that have a combined flow rate of 180 gallons per minute. Waste is routed through a manual bar screen as primary treatment. Screenings and grit are collected and placed in a 55-gallon drum for offsite disposal at a landfill.

Wastewater then flows to an aeration basin package plant where settleable solids/matter are allowed to collect in a settling tank within the aeration basin and then into a clarifier. The aeration basin is equipped with one 10-hp surface aerator. Sludge that settles out in the aeration basin sludge is removed and placed into the unlined waste/sludge pit for drying. Dried sludge is disposed of offsite when necessary.

The July 2023 RWD indicates the present dry weather flow averages about 0.02 mgd, or 22,688 gallons per day (gpd), and indicates that inflow and infiltration are not an issue. The Discharger noted that reported flows in the self-monitoring reports (SMRs)

are estimated based on pump run times and that they likely overestimate the flows due to the pumps being old and not pumping at peak efficiency. The Discharger indicated it is evaluating the best way to rectify the current methods of measuring flow to the WWTF. Data in the 2022 and 2023 SMRs indicate wastewater flows were higher than the average flow reported in the 2023 RWD and averaged about 0.061 mgd since January 2022. This Order includes a requirement for the Discharger to evaluate the actual flows from the Parkwood WWTF.

According to the operator, the WWTF provides sufficient treatment to comply with the biochemical oxygen demand (BOD) and total suspended solids (TSS) effluent limitations specified in the General Order for activated sludge treatment systems (i.e., monthly average of 30 mg/L and 7-day average of 45 mg/L). However as indicated below in Table 2, the effluent has exceeded the monthly average for both BOD and TSS twice in both 2022 and 2023.

POTENTIAL THREAT TO WATER QUALITY

Monthly average effluent 5-day biochemical oxygen demand (BOD₅) for 2022 and 2023 is summarized in Table 2 below. Generally, these results comply with the effluent limitation specified in the General Order for pond systems (monthly average limit of 30 mg/L BOD₅). However, for May 2022 and August 2023, the monthly average BOD₅ concentrations were 61 and 73 mg/L, respectively. September BOD results in both 2022 and 2023 were 32 mg/L, above the 30 mg/L limit, but to a lesser degree.

Table 2 – Effluent BOD results 2022 and 2023

	2022	2022	2023	2023
	BOD	TSS	BOD	TSS
Month	(mg/L)	(mg/L)	(mg/L)	(mg/L)
January	16	8	28	32
February	26	22	26	28
March	22	20	73	41
April	19	20	25	16
May	61	160	29	20
June	15	23	27	24
July	15	19	16	22
August	18	17	--- (see 1 below)	---
September	32	40	32	32
October	20	11	27	23
November	---	---	29	25
December	11	22	26	30

1. --- = No data available.

The July RWD does not discuss underlying groundwater or supply water quality. There is however, depth to groundwater information available at: [California Department of Water Resources \(DWR\) Sustainable Groundwater Management Act \(SGMA\) Data Viewer](https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#currentconditions) (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#currentconditions)

SGMA Data Viewer depth to groundwater contours from the spring 2015 through the spring of 2020 depict depths to groundwater ranging from about 140 to 205 feet below the ground surface (bgs) and indicate that groundwater flow direction is towards the northeast. However in the fall of 2020, an apparent groundwater mound developed north of the WWTF and the depth to water contour lines indicated that groundwater was present about 30 feet bgs beneath the Parkwood WWTF. During the episode of apparent mounding, depth to water contour lines indicated that the groundwater flow direction was to the south. The following year, DWR information indicated that groundwater was present at approximately 200 and 205 feet bgs in the spring and fall of 2021, respectively. Since the spring of 2022, depth to water contour lines indicate that the depth to groundwater beneath the WWTF has ranged from 35 to 185 feet bgs, and the groundwater flow direction has been to the southwest and southeast.

There is no known historical groundwater monitoring data for the Parkwood WWTF. To help determine underlying groundwater quality, Central Valley Water Board staff reviewed available well data for nearby wells using the [Groundwater Ambient Monitoring and Assessment Program](https://gamagroundwater.waterboards.ca.gov/gama) (https://gamagroundwater.waterboards.ca.gov/gama). There are six wells shown within a half mile from the WWTF, four of which are listed as municipal wells, while the other two are listed as domestic wells. Construction information is available for three of the municipal wells as shown in Table 3.

Table 3 – Regional Municipal Well Construction Details

Well Number	Well Depth (feet bgs)	Screened Interval (feet bgs)	Screen Length (feet bgs)
CA2010002_032_032	600	310 to 600	290
CA2010004_004_004	240	138 - 238	100
CA2010004_003_003	456	240 - 456	216

Water quality results for the four municipal wells are available from 1987 to 2023, and samples from each of the wells resulted in similar quality. Nitrate as nitrogen (Nitrate as N) results in the municipal wells averaged 2.3 to 3.0 mg/L with a maximum result of 4.9 mg/L. The average EC result from samples collected from the three municipal wells ranged from 281 to 351 micromhos per centimeter ($\mu\text{mhos/cm}$). Chloride averaged from 24 to 39 mg/L and sodium averaged from 23 to 28 mg/L in samples collected from the four municipal wells. The two domestic wells were sampled once each in 2020 for Nitrate as N with results of 2.3 and 5.6 mg/L.

Based on available information, including the depth to groundwater, expected strength of the domestic wastewater, and existing flow conditions, the Parkwood WWTF appears

to meet the conditions of the General Order.

MONITORING REQUIREMENTS

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

- Activated Sludge System Monitoring
- Pond Monitoring
- Solids Disposal Monitoring

NITROGEN LIMIT EVALUATION

The General Order requires a nitrogen effluent limitation if the WWTF flow rate is more than 20,000 gpd. The RWD indicated the average daily flow to be 22,688 gpd, slightly higher than the 20,000 gpd flow requiring a nitrogen effluent limit evaluation. However, Attachment 1 of the General Order includes a flow chart that provides guidance for determining whether a nitrogen effluent limit is necessary, and includes the following flow and site-specific considerations:

- A.1. Exceed 20,000 gallons gpd flow rate?
- A.2. Shallow groundwater?
- A.3. Excessive percolation rate and/or fractured rock environment?
- A.4. Exceed domestic wastewater strength?
- A.5. Nitrogen removal required?

While the Parkwood WWTF average daily flow rate does exceed 20,000 gpd, consideration's A.2. though A.5. are not applicable. Additionally, Central Valley Water Board staff reviewed nitrate (as N) results from six domestic/municipal supply wells located within 2 miles of the Parkwood WWTF. The dates of sampling ranged from January 1987 through February 2023 and the results ranged from 1.0 to 5.6 mg/L. None of the results exceeded the California Primary Maximum Contaminant Level of 10 mg/L. Furthermore, the Discharger received a Notice to Comply for the Nitrate Control Program on 29 December 2023, and the Discharger has indicated it will participate in the Madera subbasin Management Zone, which will require an in-depth nitrogen analysis. Based on the General Order flow chart evaluation for determining the need for a nitrogen effluent limit, the regional groundwater quality and occurrence, and the Dischargers intent to comply with the Nitrate Control Program, this NOA doesn't specify a nitrogen limit. However, the Discharger is required to conduct effluent nitrogen monitoring to characterize the WWTF's discharge.

SALT AND NITRATE CONTROL PROGRAMS

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 (Resolution R5-2018-0034). The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](#)

(https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf)

Pursuant to the Basin Plan amendments, the Discharger was sent a Notice to Comply (**CV-SALTS ID: 1735**) on 5 January 2021 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 Discharger was given until 15 July 2021 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 Salt Control Program, the Discharger selected Pathway 2 (Alternative Salinity Permitting Approach). According to our records, the Discharger is in compliance with the Salt Control Program.

For the Nitrate Control Program, the Parkwood WWTF is within the Madera Groundwater Sub-Basin 5-22.06 (San Joaquin Valley – Madera), a Priority 2 basin/sub-basin. The Discharger was mailed a Nitrate Control Program Notice to Comply on 29 December 2023 and has until 25 February 2025 to respond. The Discharger has indicated they will participate in Pathway B (Management Zone Permitting Approach).

More information on the Salt and Nitrate Control Programs can be found at the [CV-SALTS Website](https://www.cvsalinity.org/public-info) (<https://www.cvsalinity.org/public-info>).