



Central Valley Regional Water Quality Control Board

6 February 2020

Richard Hewitson
I-5 Property Services, Inc.
39482 State Highway 33
Avenal, California 93204

CERTIFIED MAIL
7018 1830 0001 0015 4465

NOTICE OF APPLICABILITY (NOA); STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5281; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; I-5 PROPERTY SERVICES, INC.; I-5 AND PANOCHÉ ROAD WASTEWATER TREATMENT FACILITY; FRESNO COUNTY

On 5 June 2018, Mr. Alfonso Manrique, on behalf of I-5 Property Services, Inc. (Discharger), submitted a Report of Waste Discharge (RWD) for the Interstate Highway 5 (I-5) and Panoche Road 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 technical report prepared by Mr. Manrique, a California registered engineer (RCE 63673). Nitrogen data was submitted on 13 September 2019, 5 November 2019, and 20 December 2019. A Form 200 signed by Darla Harrel, Vice-President of I-5 Property Services, Inc. was submitted on 10 December 2019. Based on the information provided, the discharge from your WWTF is eligible for coverage under the General Order. This letter serves a formal notice that the General Order is applicable to your system and the wastewater discharge described below upon rescission of Waste Discharge Requirements (WDRs) Order 95-122. You are hereby assigned General Order **2014-0153-DWQ-R5281** for your system.

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-R5281**. 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

The Discharger owns the I-5 and Panoche Road WWTF in the southwest corner of I-5 and Panoche Road about 20 miles southwest of Mendota in Fresno County (section 11 and 12, Township 15 South, Range 12 East, Mount Diablo Base and Meridian (MDB&M)). According to the June 2018 RWD, California Water Services is the contract operator for the WWTF.

The WWTF is currently regulated by WDRs 95-122, which allows a discharge of up to 76,000 gallons per day (gpd) from an activated sludge treatment plant to five evaporation/percolation ponds, to 320 acres of cotton fields owned by a nearby farmer and 50 acres owned by the Discharger. The WWTF treats domestic wastewater from the highway commercial development that includes one motel, three restaurants, and four service stations. The WWTF flow schematic is show in **Attachment A**, which is incorporated by reference and considered part of this Notice of Applicability (NOA).

In 2016, the activated sludge treatment plant and clarifier were abandoned and replaced with a new biological filtration treatment process (BIDA® system). The BIDA® system is a passive biological filtration treatment process that works like a trickling filter and consists of worms living in the wood chips (top layer) and bacteria living in the river cobble (lower layer). The new WWTF consists of an influent screen, and influent lift station, a rotary drum screen, and intermediate lift station, a 10,000-gallon equalization tank, a filter feed pump station, the BIDA® system, an effluent lift station, five evaporation/percolation ponds, and an irrigation pump station. The new WWTF has a design treatment capacity of 80,000 gpd. According to water balance in the June 2018 RWD, the maximum flow the evaporation/percolation ponds can accommodate during a 100-year return precipitation event is 50,000 gpd. Based on self-monitoring reports (SMRs) from January 2017 through November 2019, the monthly average flows at the WWTF range from 21,579 to 38,036 gpd. Treated wastewater is now disposed on approximately 20 acres of land (disposal field) owned by Bishop Farms 15, LLC and operated by I-5 Property Services, Inc., through its contract operator California Water Services. The 20 acres are located southwest of the WWTF (section 14, Township 15 South, Range 12 East, MDB&M) as shown in **Attachment B**.

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-R5281.

In accordance with Section B.1 of the General Order, treated wastewater discharged from the treatment system to either the ponds and/or disposal field, **shall not exceed a monthly average daily discharge of 50,000 gallons per day (gpd)**.

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	Ephemeral Stream Drainage	Property Line
Aerobic Treatment Unit, Treatment System, and Collection System	150 ft	50 ft	5 ft
Impoundment (undisinfected secondary water)	150 ft	150 ft	50 ft
Land Application Areas (undisinfected secondary water)	150 ft	100 ft	100 ft
Spray Irrigation	--	--	See 1. below

1. No spray irrigation of wastewater shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.

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

1. Aerobic Treatment Unit requirements specified in Section B.3 of the General Order;
2. Pond System requirements specified in Section B.5 of the General Order;
3. Land Application System requirements in Section B.7 of the General Order; and
4. Sludge/Solids/Biosolids Disposal requirements in Section B.8 of the General Order.

The proposed discharge has a flow rate that exceeds 20,000 gpd and a nitrogen evaluation was conducted as described in Attachment 1 of the General Order to determine if nitrogen effluent limits are required. The attached memorandum includes a nitrogen effluent limit evaluation. Based on the evaluation, Central Valley Water Board staff determined that the nitrogen limit for low threat situations (50% removal) is appropriate for the WWTF. The Discharger shall comply with the applicable effluent limitations, as summarized in the following table:

Table 2 – Effluent Limitations

Constituent	Unit	Monthly Average	7-Day Average	Annual Average
Biochemical Oxygen Demand (BOD)	mg/L	30	45	--
Total Suspended Solids (TSS)	mg/L	30	45	--
Total Nitrogen (% Reduction)	%	--	--	50 (see 1. below)

1. The value represents the minimum percent reduction compared to the untreated wastewater value. Reduction shall be calculated on an annual basis. In no case shall the reduction result in an effluent limit lower than 10 mg/L total nitrogen.

Provision E.1 of the General Order requires discharges enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of the NOA (**6 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 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 **within 90 days** of the issuance of the NOA.

Failure to comply with the requirements in this NOA, General Order **2014-0153-DWQ-R5281**, with all attachments, and MRP No. 2014-0153-DWQ-R5281 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 WWTF 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: 232098,
Facility Name: I-5 and Panoche Road WWTF,
Order: 2014-0153-DWQ-R5281

All document, 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 Denise Soria.

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 (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/) or will be provided upon request.

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

WDRs Order 95-122 are 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.

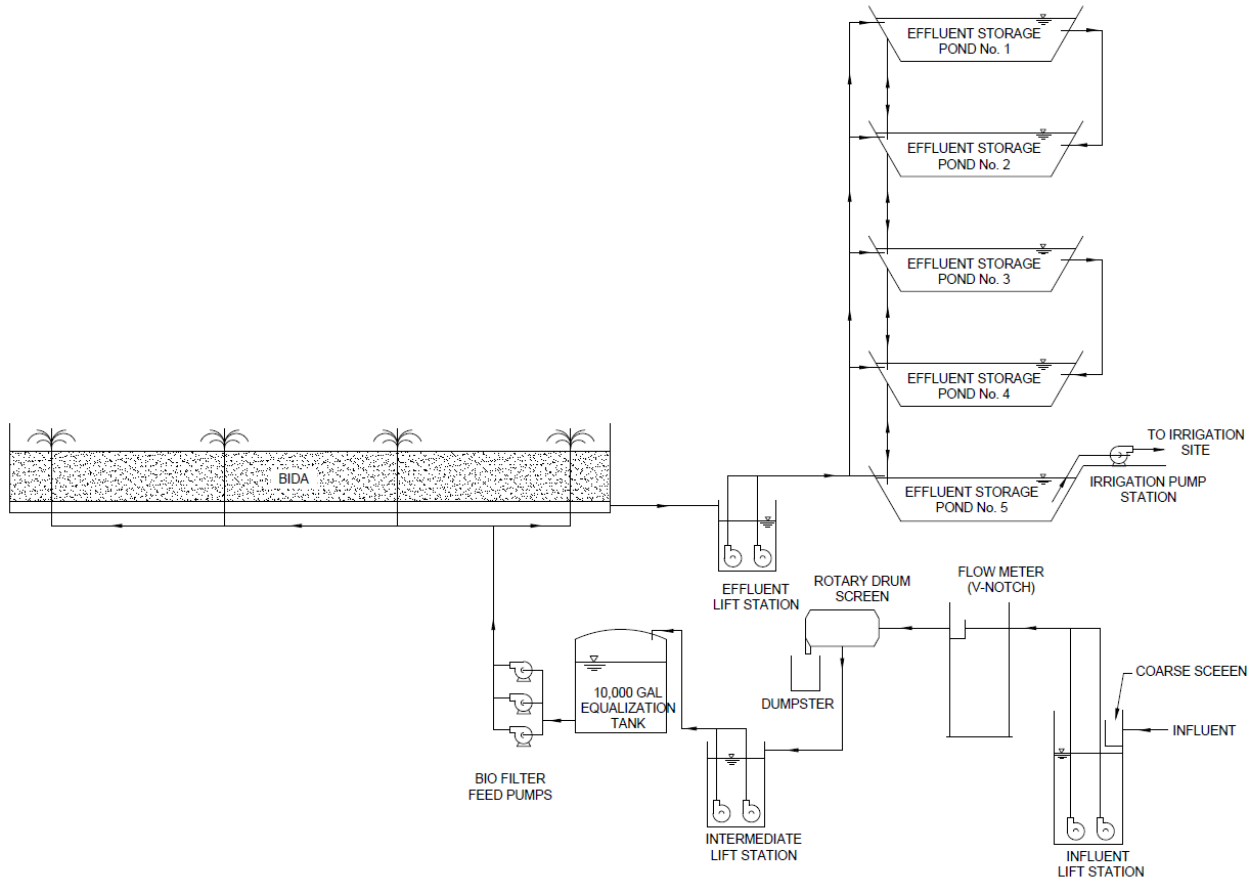
If you have any questions regarding this matter, please contact Denise Soria by phone at (559) 444-2488, by email at dsoria@waterboards.ca.gov.

Original Signed by Scott Hatton for:
Patrick Pulupa
Executive Officer

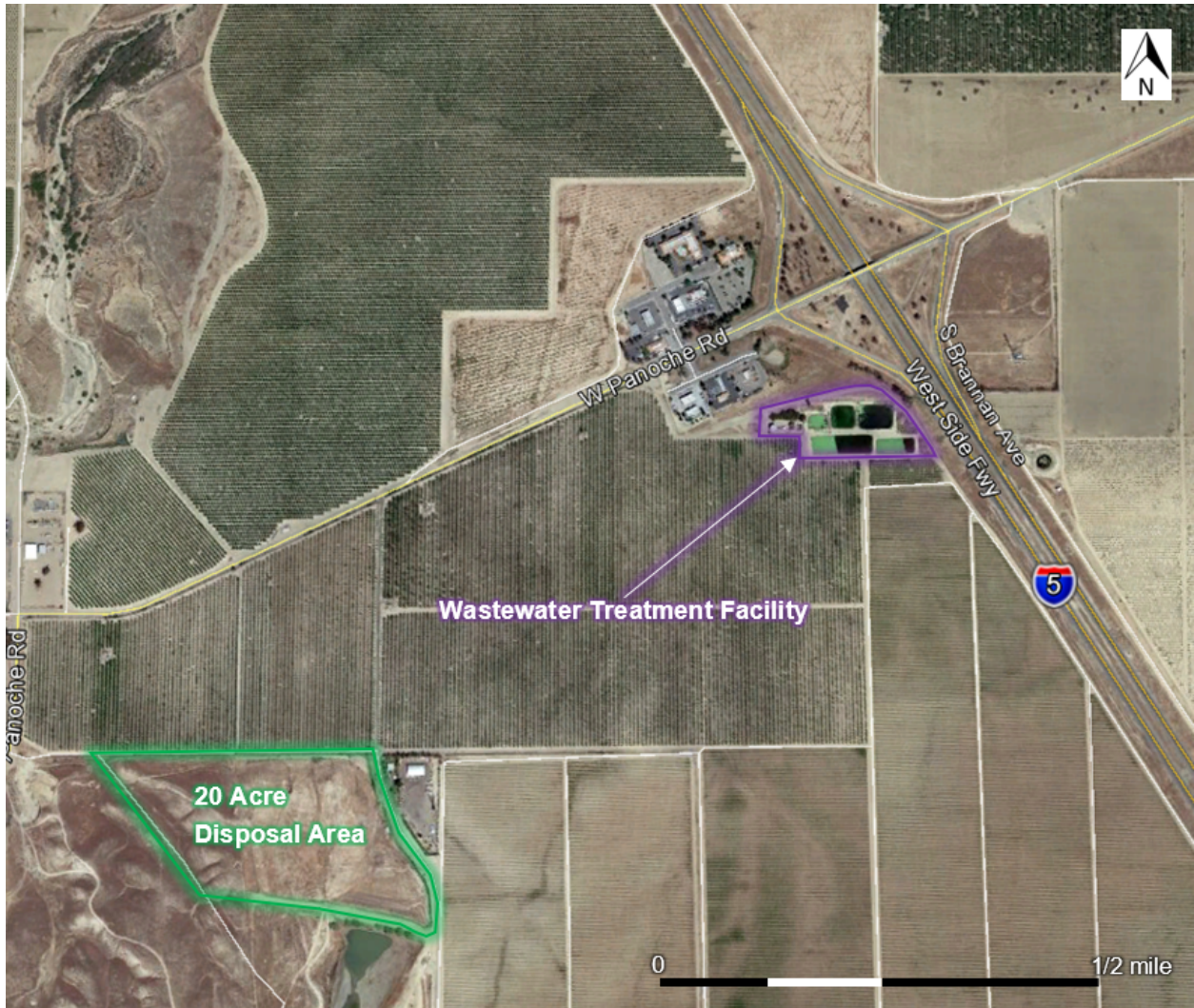
Attachments: • Attachment A – Flow Schematic
 • Attachment B – Site Map

Enclosures: ○ Monitoring and Reporting Program 2014-0153-DWQ-R5281
 ○ 6 February 2020 Regional Water Board Staff Memorandum
 ○ State Water Resources Control Board Order WQ 2014-0153-DWQ
 (Discharger Only)

cc: ○ Alfonso Manrique, AM Consulting Engineers, Inc. (via email)
 ○ Bishop Farms 15, LLC, Fresno
 ○ Fresno County, Environmental Health, Fresno
 ○ Fresno County, Public Works and Planning, Fresno



ATTACHMENT A – FLOW SCHEMATIC
 NOTICE OF APPLICABILITY 2014-0153-DWQ-R5281
 FOR
 I-5 PROPERTY SERVICES, INC.
 I-5 AND PANOCHE ROAD
 WASTEWATER TREATMENT FACILITY
 FRESNO COUNTY



ATTACHMENT B – SITE MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5281
FOR
I-5 PROPERTY SERVICES, INC.
I-5 AND PANOCHÉ ROAD
WASTEWATER TREATMENT FACILITY
FRESNO COUNTY

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

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5281
FOR
I-5 PROPERTY SERVICES, INC.
I-5 AND PANOCHÉ ROAD
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, I-5 Property Services, Inc. (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 the I-5 and Panoche Road wastewater treatment facility (WWTF) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5281. According to the June 2018 RWD, California Water Services

is the contract operator for the WWTF. 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.

TREATMENT UNIT MONITORING

Influent samples shall be taken from a location that provides representative samples of the wastewater and flow rate. At a minimum, influent monitoring shall include the monitoring specified in Table 1 below.

Table 1 – Influent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered	Continuous	Quarterly
EC	µmhos/cm	Composite	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Composite	Monthly	Quarterly
BOD ₅	mg/L	Composite	Monthly	Quarterly
TSS	mg/L	Composite	Monthly	Quarterly

Effluent samples shall be taken from a location that represents the effluent quality after the BIDA® system and prior to the evaporation/percolation ponds. At a minimum, effluent monitoring shall consist of the following:

Table 2 – Effluent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered	Continuous	Quarterly
EC	umhos/cm	Composite	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Composite	Monthly	Quarterly
BOD	mg/L	Composite	Monthly	Quarterly
TSS	mg/L	Composite	Monthly	Quarterly

POND SYSTEM MONITORING

All wastewater and treated wastewater storage ponds (lined and unlined) shall be monitored as specified in Table 3 below. Pond samples shall be collected opposite the pond inlet at a depth of one foot. Dissolved oxygen (DO) samples shall be measured between 08:00 and 10:00.

Table 3 – Wastewater Pond Monitoring

Parameter	Units	Measurement Type	Sampling 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

LAND APPLICATION AREA MONITORING

The Discharger shall monitor the 20-acre disposal field when wastewater and/or supplemental irrigation water is applied. If wastewater/supplemental irrigation water is not applied during a reporting period, the monitoring report shall so state. Land application area monitoring shall include the following:

Table 4 – Land Application Area Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Supplemental Irrigation	gpd	Meter (see 1. below)	Monthly	Quarterly
Wastewater Flow	gpd	Meter (see 1. below)	Monthly	Quarterly
Local Rainfall	Inches	Weather Station (see 2. below)	Monthly	Quarterly
Acreage Applied (see 3. below)	Acres	Calculated	Monthly	Quarterly

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Application Rate (see 4. below)	gal/acre/mo	Calculated	Monthly	Quarterly
Soil Erosion Evidence	---	Observation	Monthly	Quarterly
Containment Berm Condition	---	Observation	Monthly	Quarterly
Soil Saturation/Ponding	---	Observation	Monthly	Quarterly
Nuisance Odors/Vectors	---	Observation	Monthly	Quarterly
Discharge Off-Site	---	Observation	Monthly	Quarterly

1. Meter requires meter reading, a pump run time meter, or other approved method.
2. Weather station may be site-specific station or nearby governmental weather reporting station.
3. Acreage applied denotes the acreage to which wastewater is applied.
4. Application rate may also be reported as inch/acre/month.

SOLIDS 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.

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: 232098,
Facility Name: I-5 and Panoche Road WWTF,
Order: 2014-0153-DWQ-R5281

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. For each month of the quarter, a calculation of the average total nitrogen concentration (influent and effluent) and a calculation of the 12-month rolling average total nitrogen reduction (as a percentage) using the nitrogen data from that month and the previous 11 months.
3. 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).
4. 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. Calculation of the annual average total nitrogen reduction for the calendar year and a comparison to the total nitrogen reduction limit of 50 percent.
3. 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.
4. Copies of laboratory analytical report(s) and chain of custody form(s).
5. 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.
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. 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/>). 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 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 first month following rescission of WDRs Order 95-122.

Ordered by:

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

Original Signed by Scott Hatton for:
(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.
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
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

Denise Soria
Water Resource Control Engineer

DATE: 6 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; I-5 PROPERTY SERVICES, INC.; I-5 AND PANOCHÉ ROAD WASTEWATER TREATMENT FACILITY, FRESNO COUNTY

BACKGROUND INFORMATION

Waste Discharge Requirements (WDRs) Order 95-122 for I-5 Property Services, Inc. (Discharger) regulates the discharge of treated domestic wastewater from the Interstate Highway 5 (I-5) and Panoche Road wastewater treatment facility (WWTF) for a flow of up to 76,000 gallons per day (gpd) to five evaporation/percolation ponds and to 320 acres of cotton fields owned by a nearby farmer and 50 acres owned by the Discharger. The WWTF originally consisted of a primary clarifier, an activated sludge treatment plant, effluent flow meter, two sludge drying beds, and five evaporation/percolation ponds.

In December 2016, I-5 Property Services, Inc. (Discharger) replaced the WWTF with a new biological filtration treatment process (BIDA® system). The old activated sludge treatment plant and clarifiers have been abandoned.

On 5 June 2018, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) from Mr. Alfonso Manrique of AM Consulting Engineers, Inc, on behalf of the Discharger, for the WWTF. The RWD requests coverage under the State Water Resources Control Board's Water Quality Order 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (General Order)* for the WWTF.

The RWD includes a technical report signed and stamped by Mr. Manrique, a California registered engineer (RCE 63673). Nitrogen data was submitted on 13 September 2019, 5 November 2019, and 20 December 2019. A Form 200 signed by Darla Harrel, Vice-President of I-5 Property Services, Inc was submitted on 10 December 2019.

WDRs Order 95-122 needs to be revised to ensure the discharge is consistent with Central Valley Water Board plans and policies. 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

I-5 Property Services, Inc. owns the WWTF. According to the June 2018 RWD, California Water Services is the contract operator for the WWTF. The WWTF is about 20 miles southwest of Mendota in Fresno County (sections 11 and 12, Township 15 South, Range 12 East, Mount Diablo Base and Meridian [MDB&M]). Bishop Farms 15, LLC owns the 20 acres of disposal area where treated effluent is applied (section 14, Township 15 South, Range 12 East, MDB&M). A site map is shown on **Attachment B** of the Notice of Applicability (NOA).

The WWTF consists of an influent screen, influent lift station, rotary drum screen, intermediate lift station, a 10,000-gallon equalization tank, a filter feed pump station, a biological filtration treatment system (BIDA® system), an effluent lift station, five evaporation/percolation ponds, and an irrigation pump station. The BIDA® system is a passive biological filtration treatment process that works like a trickling filter and consists of worms living in the wood chips (top layer) and bacteria living in the river cobble (lower layer). The five evaporation/percolation ponds have a total volume of 5.9 million gallons. Evaporation/percolation ponds 1, 2, and 3 are designed as emergency ponds in an event that untreated or partially treated wastewater needs to be stored. Evaporation/percolation ponds 1, 2, and 3 have a combined volume of approximately 2.8 million gallons. Evaporation/percolation ponds 4 and 5 are used to store treated wastewater prior to applying to land. Evaporation/percolation ponds 4 and 5 have a combined volume of approximately 3.1 million gallons. The WWTF flow schematic is show on **Attachment A** of the NOA.

The new WWTF has a design treatment capacity of 80,000 gpd. According to water balance in the June 2018 RWD, the maximum flow the evaporation/percolation ponds can accommodate during a 100-year return precipitation event is 50,000 gpd. Based on self-monitoring report (SMRs) from January 2017 through November 2019, the monthly average flows at the WWTF range from 21,579 to 38,036 gpd as shown in Table 1. Therefore, based on the information provided the water balance, a flow limitation of 50,000 gpd from the WWTF is adequate.

Table 1 - Monthly Average Wastewater Flows (in gallons per day)

Month	2017	2018	2019
January	29,320	23,321	25,567
February	22,870	22,011	21,579

Month	2017	2018	2019
March	21,851	24,307	25,446
April	25,276	26,712	27,492
May	23,735	22,381	29,003
June	28,159	25,519	31,457
July	30,029	27,446	38,036
August	27,788	27,828	32,281
September	27,657	23,031	34,605
October	29,021	24,413	30,894
November	24,712	24,336	26,827
December	28,099	25,536	---

Monitoring and Reporting Program (MRP) 95-122 does not require influent monitoring. However, starting in April 2017, the Discharger began influent monitoring specifically for biochemical oxygen demand (BOD) and total suspended solids (TSS). The monthly average concentrations for BOD and TSS are tabulated below.

Table 2 – Influent and Effluent BOD and TSS Data

Month	Inf. BOD (mg/L)	Eff. BOD (mg/L)	BOD Removed (% Removal)	Inf. TSS (mg/L)	Eff. TSS (mg/L)	TSS Removed (% Removal)
January 2018	483	21	96	740	20	97
February 2018	437	26	94	540	24	95
March 2018	540	11	98	470	20	96
April 2018	540	15	97	330	22	93
May 2018	700	15	98	720	20	97
June 2018	195	10	95	209	24	89
July 2018	700	27	96	3080	23	99
August 2018	705	20	97	770	17	98
September 2018	450	34	92	425	32	93
October 2018	405	33	92	229	36	84
November 2018	305	12	96	290	25	91
December 2018	---	7	---	---	---	---
January 2019	580	30	95	715	18	97
February 2019	590	7	99	600	24	96
March 2019	605	8	99	630	40	94
April 2019	550	6	99	480	33	93
May 2019	250	5	98	155	29	81
June 2019	340	11	97	325	42	87
July 2019	248	5	98	121	36	70
August 2019	134	8	94	235	22	91
September 2019	365	10	97	160	16	90
October 2019	210	7	97	153	23	85

Month	Inf. BOD (mg/L)	Eff. BOD (mg/L)	BOD Removed (% Removal)	Inf. TSS (mg/L)	Eff. TSS (mg/L)	TSS Removed (% Removal)
November 2019	250	5	98	240	17	93

As shown in Table 2, effluent BOD concentrations meet the monthly average limit of 40 mg/L prescribed in WDRs Order 95-122. WDRs Order 95-122 does not include an effluent limit for TSS. Based on data from January 2018 through November 2019 SMRs, it appears that BOD and TSS concentrations of the discharge meet both the monthly average and 7-day average effluent limitations of 30 mg/L and 45 mg/L, respectively, prescribed in Table 4 of the General Order for Activated Sludge, MBR, or similar treatment systems.

Influent and effluent monitoring for nitrogen was also not required by MRP 95-122. However, the Discharger began collecting influent and effluent samples at the WWTF to characterize nitrogen in the wastewater. Collected data are shown in Table 3.

Table 3 - Influent and Effluent Total Nitrogen Data

Date	Sample Type	Influent TN (mg/L)	Effluent TN (mg/L)	TN Removed (%)
6/14/2018	Grab	180	85	53
6/19/2018	Grab	96	110	-15
6/29/2018	Grab	160	100	38
9/28/2018	Grab	150	83	45
10/2/2018	Grab	120	97	19
10/9/2018	Grab	130	85	35
8/7/2019	Composite	110	51	54
8/9/2019	Composite	120	44	63
8/14/2019	Composite	120	51	58
8/21/2019	Composite	120	54	55
8/30/2019	Composite	130	51	61
9/6/2019	Composite	120	67	44
9/11/2019	Composite	100	63	37
9/13/2019	Composite	110	56	49
9/18/2019	Composite	110	53	52
9/20/2019	Composite	120	58	52
9/25/2019	Composite	94	59	37
9/27/2019	Composite	98	55	44
10/4/2019	Composite	120	50	58
10/9/2019	Composite	92	50	46
10/16/2019	Composite	110	56	49
10/18/2019	Composite	120	61	49
11/1/2019	Composite	95	61	36
11/8/2019	Composite	140	66	53

Date	Sample Type	Influent TN (mg/L)	Effluent TN (mg/L)	TN Removed (%)
11/13/2019	Composite	120	69	43
11/15/2019	Composite	120	74	38
11/20/2019	Composite	110	71	36
11/22/2019	Composite	140	72	49
11/27/2019	Composite	180	75	58
12/4/2019	Composite	140	130	7

The Discharger provided electrical conductivity (EC) data collected in the field and reported in the January 2019 through November 2019 SMRs as shown in Table 4 below.

Table 4 - Influent and Effluent EC Data

Date	Influent EC (umhos/cm)	Effluent EC (umhos/cm)
1/8/2019	1,120	1,253
2/5/2019	1,700	1,400
2/25/2019	1,824	1,440
3/5/2019	1,513	1,341
3/19/2019	1,175	1,265
4/2/2019	1,044	1,224
5/7/2019	1,068	1,125
5/21/2019	1,148	1,150
6/4/2019	950	1,175
6/18/2019	963	1,063
7/2/2019	757	1,222
8/6/2019	1,350	940
8/20/2019	674	840
9/3/2019	524	698
9/17/2019	1,275	990
10/8/2019	1,146	911
11/5/2019	---	1,128
11/18/2019	1,340	1,087

According to Order 95-122, treated wastewater was used for reclamation on about 320 acres of cotton, but this is no longer the case. According to the RWD, treated wastewater is only used for disposal at the 20-acre property owned by Bishop Farms 15, LLC. According to the Chief Plant Operator of the WWTF and confirmed during Central Valley Water Board staff's 5 December 2019 inspection, no crops are grown on the disposal field. Native grass reportedly only grows in the disposal field, but nothing is harvested. Furthermore, during the inspection, staff noted that the disposal area is surrounded by a fence to preclude public access. As described in Finding 7 of the

General Order, application of treated wastewater to land that does not meet the definition of beneficial use is allowed and is therefore not subject to Title 22 requirements.

POTENTIAL THREAT TO WATER QUALITY

The WWTF does not have a groundwater monitoring well network. Based on available information, first encountered groundwater in the area exists in a semi-confined aquifer above the Corcoran Clay layer. A lower confined groundwater zone exists below the Corcoran Clay layer. The Corcoran Clay layer is found below the WWTF at a depth ranging from 450 to 550 feet below ground surface (bgs) in sections 11 and 12, Township 15 South, Range 12 East, MDB&M according to the *Depth to Top of Corcoran Clay* map published by the Department of Water Resources in 1981.

The Starwood-Midway Power Plant located about 2.5 miles east of the WWTF has a groundwater monitoring well network consisting of three wells (MW-1 through MW-3) screened in the semi-confined aquifer. Groundwater monitoring well MW-1 was constructed with a 5-inch diameter polyvinyl chloride casing. Groundwater monitoring wells MW-2 and MW-3 were constructed with a 4-inch diameter polyvinyl chloride casing. All three groundwater monitoring wells were constructed with a screen interval ranging from 160 to 220 feet bgs. WDRs Order R5-2009-0052 for the Starwood-Midway Power Plant requires groundwater monitoring of the wells. Average groundwater quality based on quarterly SMRs from June 2018 through May 2019 are show below.

Table 5. Groundwater Quality from Starwood-Midway Power Plant Wells

Parameter	Units	Well-1	Well-2	Well-3
Alkalinity as CaCO ₃	mg/L	113	92	89
Bicarbonate as CaCO ₃	mg/L	113	92	89
Chloride	mg/L	470	870	650
Electrical Conductivity	umhos/cm	5,800	7,525	6,900
Nitrate as N	mg/L	104	226	152
Total Dissolved Solids	mg/L	4,475	5,250	5,267
Dissolved Arsenic	mg/L	3.8	5.8	5.8
Dissolved Barium	mg/L	9.8	10.7	9.0
Dissolved Boron	mg/L	2.9	3.2	4.4
Dissolved Calcium	mg/L	445	613	610
Dissolved Iron	mg/L	<0.03	<0.03	<0.03
Dissolved Magnesium	mg/L	373	428	393
Dissolved Potassium	mg/L	10.4	14.3	12
Dissolved Selenium	mg/L	498	1,085	772
Dissolved Sodium	mg/L	558	733	740

The groundwater data above demonstrates that underlying groundwater is of poor quality with respect to salinity and nitrate.

NITROGEN LIMIT EVALUATION

Attachment 1 of the General Order includes five site-specific considerations (Step A) that shall be considered when evaluating a discharge and the need for nitrogen effluent limits. These five site-specific considerations 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.

The predominant soil types below the disposal area are Polvadero-Guijarral Complex and Milham-Guijarral Association while soils below the evaporation/percolation ponds are Excelsior sandy loam, according to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Services. Both Polvadero-Guijarral Complex and Milham-Guijarral have an irrigated capability classification of 3e. Soils with "Class 3" soils have severe limitations that restrict the choice of plants or require special conservation practices, or both. The subclass "e" shows that the main problem is the hazard of erosion unless close-growing plant cover is maintained. The susceptibility to erosion and past erosion damage are the major soil-related factors affecting the soils that are assigned this subclass letter. Excelsior sandy loam has an irrigation capability classification of 1. Soils with "Class 1" soils have slight limitations that restrict their use.

As shown in Tables 2 and 3 above, the influent wastewater concentrations for BOD, TSS, and TN at the WWTF exceed the typical strength of domestic wastewater presented in Table 1 of the General Order (Finding 8). It appears that influent concentrations for BOD and TSS have been decreasing since May 2019 and are now within the typical strength of domestic wastewater of 200-290 mg/L. It appears that after treatment, the discharge will meet the monthly average limit of 30 mg/L and the 7-day average limit of 45 mg/L for both BOD and TSS prescribed in the General Order.

The June 2018 RWD did not provide a summary of groundwater quality in the area of the discharge nor does it provide an evaluation of the potential impacts the discharge can have on groundwater, specifically with regards to nitrogen. However, based on the information above, it appears that underlying groundwater in the area is of poor quality with respect to nitrogen.

Based on the information described above (e.g., high strength wastewater available for the discharge), per the General Order's nitrogen effluent limit evaluation (Step A), a nitrogen limit for the WWTF is required. Following Step B of the evaluation, the WWTF is in a low-threat situation since the significant depth to groundwater in the area, provides additional attenuation for percolated effluent. As shown in Table 3 above, the Discharger began collecting nitrogen influent and effluent composite samples in 2019. Based on twenty-four composite samples, the nitrogen percent reduction at the WWTF ranges from 7 to 63 percent. The WWTF is currently providing approximately 50 percent reduction for total nitrogen. Therefore, it appears the WWTF can, if properly operated, comply with an annual average nitrogen limitation of 50 percent reduction (minimum percent reduction compared to the untreated wastewater value).

MONITORING REQUIREMENTS

Due to the apparent variability in the influent and effluent data, composite sampling of the influent and effluent should be required in the associated monitoring and reporting program. Monitoring requirements included in the following sections from Attachment C of the General Order are appropriate for this discharge:

- Aerobic Treatment Unit Monitoring
- Pond System Monitoring
- Land Application Area 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 Resource 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 Discharger will have no more than six months to submit their Notice of Intent informing the Central Valley Water Board of their choice between Option 1 (Conservative Salinity Permitting Approach) or Option 2 (Alternative Salinity Permitting Approach).

For the Nitrate Control Program, the WWTF falls within Groundwater Basin 5-022.09 (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.

[More information on the Salt and Nitrate Control Program](https://www.cvsalinity.org/public-info) may be found on the internet (<https://www.cvsalinity.org/public-info>).