17 March 2020

Michael Mahoney, President
River Island Homeowners Association
32903 Riverside Drive
Springville, California 93265

CERTIFIED MAIL
7019 2970 0001 5206 2940

NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5328, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; RIVER ISLAND EAST HOMEOWNERS ASSOCIATION; RIVER ISLAND EAST WASTEWATER TREATMENT FACILITY; TULARE COUNTY

On 8 December 2017, the River Island East Homeowners Association (Discharger) submitted a Report of Waste Discharge (RWD) consisting of a Form 200 and technical report for the River Island East Wastewater Treatment Facility (Facility). Based on the information provided, the Facility treats and disposes of less than 100,000 gallons per day (gpd), and is therefore eligible for coverage under the general and specific conditions of 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). This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below upon the rescission of Waste Discharge Requirements (WDRs) Order 91-111. You are hereby assigned General Order enrollee number **2014-0153-DWQ-R5328** 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-R5328. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The Facility currently receives and treats domestic wastewater from 73 developed lots. The River Island East development currently consists of 68 developed lots (37 lots still

undeveloped). In addition, five houses outside of River Island East discharge to the Facility.

The Facility is located at 31989 River Island Drive in Porterville (36.099°, -118.854°). The Facility consists of an influent lift station, influent fine screen, a flow equalization tank, two extended aeration package treatment units, dual tertiary sand filters, dual ultraviolet light (UV) disinfection units, a GeoFlow subsurface drip irrigation system, and a 100 KW standby generator. The package treatment units each have a 30,000 gpd capacity and consists of an anoxic/aeration tank, clarifier with sludge air lift, surface skimmer, and an effluent weir.

Concentrated sludge is hauled to the City of Porterville wastewater treatment facility for disposal. Screenings are washed, dewatered, and placed in a dumpster for landfill disposal.

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-R5328.

In accordance with Section B.1 of the General Order, treated wastewater discharged to the subsurface drip irrigation system shall not exceed a **monthly average daily discharge of 50,000 gpd**. Furthermore, the Discharger shall comply with the effluent limitations specified in Table 1 below when discharging to the onsite subsurface drip irrigation system. Compliance with the effluent limitations specified in Table 1 shall be determined at a point after the disinfection system prior to discharge to the drip irrigation system.

Table 1 - Effluent Limitations (Subsurface Drip Irrigation System)

Constituent	Unit	Daily Maximum	Average Monthly	7-Day Average	Annual Average
Biochemical Oxygen Demand (BOD)	mg/L	--	30	45	--
Total Suspended Solids (TSS)	mg/L	--	30	45	--
Total Coliform	MPN/100 mL	240	--	23	--
Total Nitrogen (as N)	mg/L	--	--	--	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.

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 2 - Site-Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well	Flowing Stream	Property Line
Aerobic Treatment Unit, Treatment System, and Collection System	150 ft.	50 ft.	5 ft.
Leach Field	100 ft.	100 ft.	5 ft.

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

1. Activated Sludge System requirements specified in Section B.4 of the General Order;
2. Subsurface Disposal System requirements specified in Section B.6 of the General Order;
3. Sludge/Solids/Biosolids Disposal requirements specified in Section B.8 of the General Order; and
4. 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 June 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).

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. 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, with all attachments, and MRP No. 2014-0153-DWQ-R5328 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.

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.

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 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**: 273152,
> **Facility Name:** River Island East WWTF,
> **Order:** 2014-0153-DWQ-R5328

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 General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention to Daniel Benas. Mr. Benas can be reached at (559) 445-5500 or by email at 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 (http://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 (http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf).

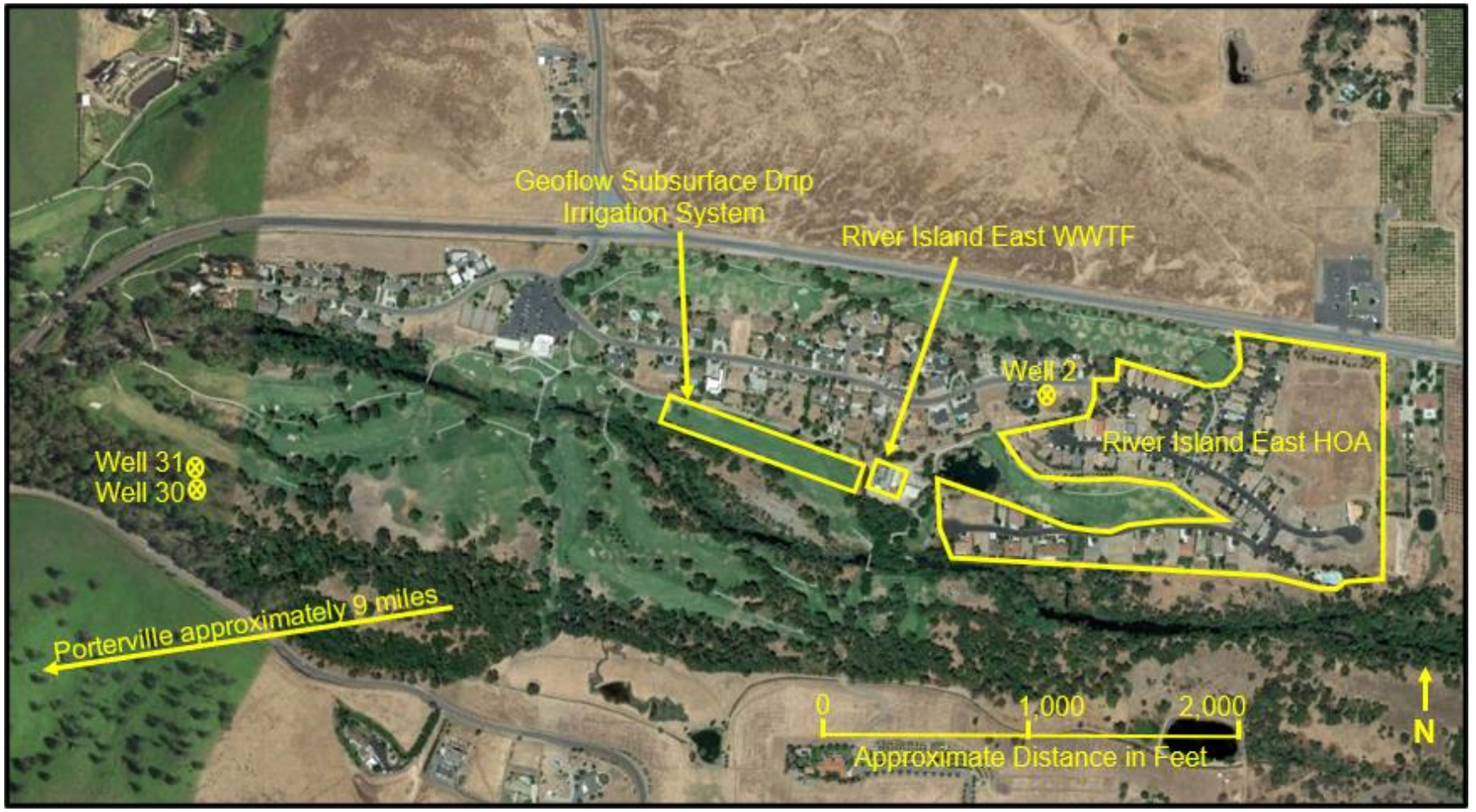
If you have any questions regarding this matter, please contact Daniel Benas by phone at (559) 445-5500, by email at Daniel.Benas@waterboards.ca.gov.

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

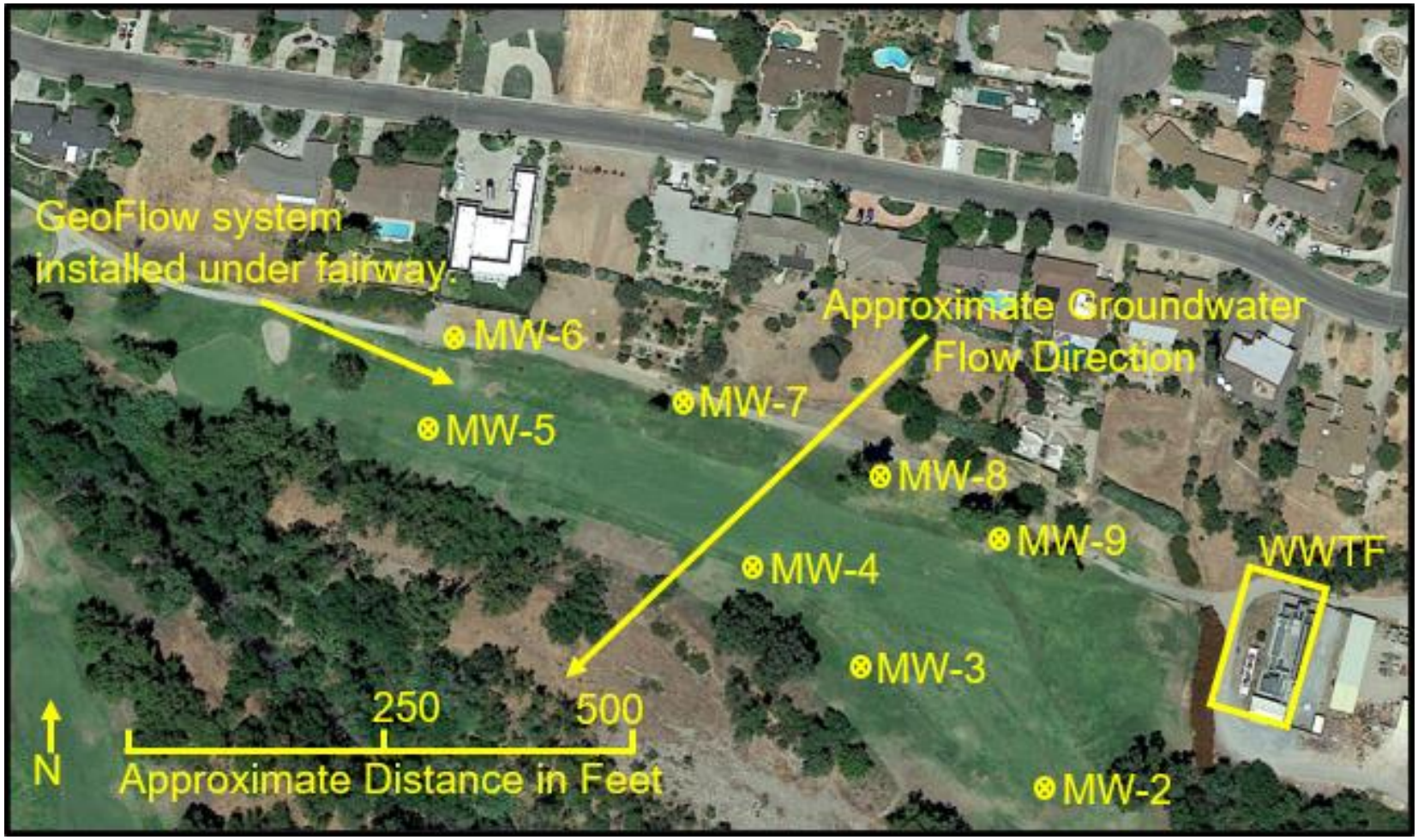
Attachments:
- Attachment A - Site Map
- Attachment B – Monitoring Well Map
- Attachment C - Flow Schematic

Enclosures:
- Monitoring and Reporting Program 2014-0153-DWQ-R5328
- 17 March 2020 Review Memorandum of River Island East WWTF
- State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger only)

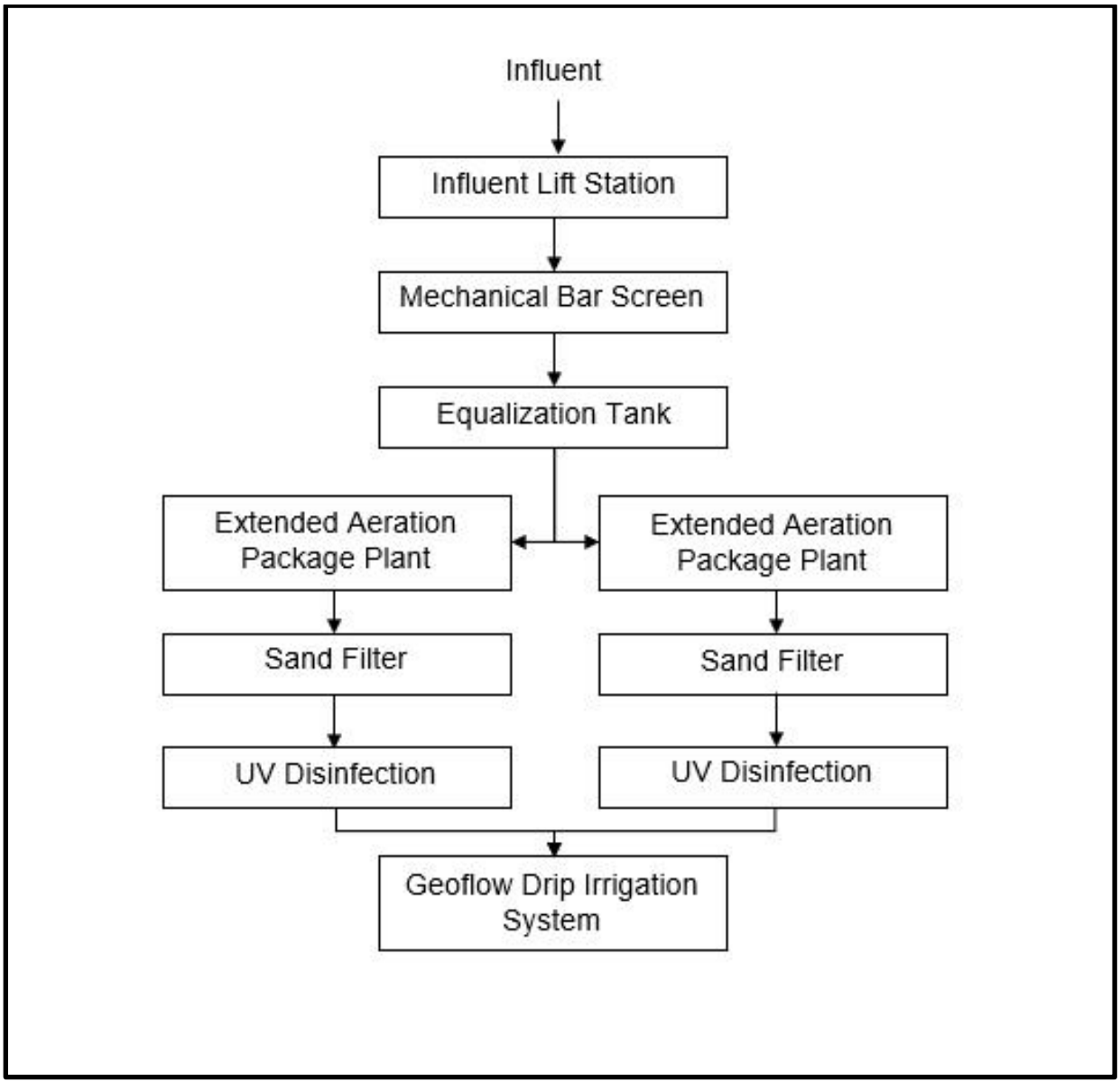
cc:
- Scott Couch, State Water Resources Control Board, Division of Water Quality (via email)
- Tulare County Environmental Health Division, 5957 S. Mooney Boulevard, Visalia, California
- Monty Dill; Water Dynamics; Fresno (via email)



ATTACHMENT A – SITE MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5328
FOR
RIVER ISLAND EAST HOMEOWNERS ASSOCIATION
RIVER ISLAND EAST WASTEWATER TREATMENT FACILITY
TULARE COUNTY



ATTACHMENT B – MONITORING WELL MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5328
FOR
RIVER ISLAND EAST HOMEOWNERS ASSOCIATION
RIVER ISLAND EAST WASTEWATER TREATMENT FACILITY
TULARE COUNTY



ATTACHMENT C – FLOW SCHEMATIC
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5328
FOR
RIVER ISLAND EAST HOMEOWNERS ASSOCIATION
RIVER ISLAND EAST WASTEWATER TREATMENT FACILITY
TULARE COUNTY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5328 FOR RIVER ISLAND EAST HOMEOWNERS ASSOCIATION RIVER ISLAND EAST WASTEWATER TREATMENT SYSTEM TULARE 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, River Island East Homeowners Association (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 River Island East Wastewater Treatment Facility (Facility) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5328. 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 SYSTEM MONITORING

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

Table 1 - Influent Monitoring Requirements

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
BOD_5	µmhos/cm	Grab	Monthly	Quarterly
TSS	mg/L	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly

Effluent samples shall be taken at an area after disinfection that represents the effluent quality distributed to the disposal area. At a minimum, effluent monitoring shall include the monitoring specified in Table 2 below.

Table 2 – Effluent Monitoring Requirements

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered	Continuous	Quarterly
BOD_5	µmhos/cm	Grab	Monthly	Quarterly
TSS	mg/L	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Monthly	Quarterly
pH	SU	Grab	Weekly	Quarterly
EC	µmhos/cm	Grab	Weekly	Quarterly

Ultraviolet light (UV) disinfection system monitoring shall be collected immediately downstream of the UV system. At a minimum, UV disinfection system monitoring shall include the monitoring specified in Table 3 below.

Table 3 – UV Disinfection System Monitoring Requirements

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL	Grab	Monthly	Quarterly
Turbidity (see 1 below)	NTU	Meter	Continuous	Quarterly
UV Transmittance (see 2 below)	Percent (%)	Meter	Continuous	Quarterly
UV Intensity	mW/cm^2	Meter	Continuous	Quarterly
UV Dose (see 3 below)	mJ/cm^2	Calculated	Continuous	Quarterly

1 The turbidity meter shall be stationed immediately after the filters, prior to the UV disinfection unit. Report daily average turbidity and maximum turbidity.
2 UV light transmittance at a wavelength of 254 nanometers.
3 Report daily minimum, daily average, and weekly average UV dose.

SUBSURFACE DISPOSAL AREA

In general monitoring shall be sufficient to determine if wastewater is evenly applied, the disposal area is not saturated, burrowing animals and/or deep-rooted plants are not present, and odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the disposal area. Monitoring of the subsurface drip irrigation system shall at a minimum, include the monitoring specified in Table 4.

Table 4 - Subsurface Disposal Area Monitoring Requirements

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, ect. (see 1. below)	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly

Constituent	Inspection Frequency	Reporting Frequency
Saturated Soil Conditions (see 2. below)	Quarterly	Quarterly
Plant Growth (see 3. below)	Quarterly	Quarterly
Vectors or Animals Burrowing (see 4. below)	Quarterly	Quarterly

1. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.
2. Inspect a disposal area for saturated conditions. If a mound system is used.
3. Shallow rooted plants are generally desirable, deep rooted plants such as trees shall be removed as necessary.
4. Evidence of animals burrowing shall be immediately investigated, and burrowing animal populations controlled as necessary.

SLUDGE/BIOSOLIDS 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.

GROUNDWATER MONITORING

Consistent with the Business and Professions Code, groundwater monitoring reports, well construction workplans, etc. shall be prepared under the supervision of a California licensed civil engineer or geologist. Prior to construction of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Water Board's staff for review and approval. Once installed, all monitoring wells designated as part of the monitoring network shall be sampled and analyzed according to the schedule below.

The data from routine groundwater monitoring events shall be submitted quarterly. Analysis of the data shall be performed at least annually and shall be performed under the supervision of a California licensed professional (as described above). The Discharger may request a reduced monitoring and reporting schedule once adequate data has been collected to characterize the site. (Typically two years of quarterly sampling is required for adequate characterization.)

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged of at least three well volumes and until pH and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are

described in an approved Sampling and Analysis Plan. Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods. Groundwater monitoring at MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9 and any other future monitoring wells added to the Facility's network shall include, at a minimum, the monitoring included in Table 5 below.

Table 5 – Groundwater Monitoring Requirements

Constituent	Units	Sample Type	Sampling Frequency
Groundwater Elevation (see 1. below)	0.01 Feet	Calculated	Quarterly
Depth to Groundwater	0.01 Feet	Measurement	Quarterly
pH	Std. Units	Grab	Quarterly
EC	µmhos/cm	Grab	Quarterly
TDS	mg/L	Grab	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly
TKN	mg/L	Grab	Quarterly
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly

1 Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernable. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence 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: 273152,
Facility Name: River Island East WWTF
Order: 2014-0153-DWQ-R5328

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 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).
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 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.

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.
7. A groundwater monitoring report prepared by a California licensed professional. This report may be prepared separately from the rest of the Annual Report. The report shall contain an analysis of groundwater data collected during the year. The analysis shall include a description of the sample events, copies of the field logs, purge method and volume, groundwater elevation and trend, a groundwater elevation map for each sample event, summary tables showing results for parameters measured, comparison of groundwater quality parameters to standards in the NOA, chain-of-custody forms, calibration logs for field equipment used, and a general evaluation of any impacts the wastewater discharge is having on groundwater quality.

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/), 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 Annual Volumetric Report, shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

> *"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

The Discharger shall implement the above monitoring program in the first month following the rescission of Order 91-111.

Ordered by:

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

3/17/2020
(Date)

GLOSSARY

BOD_5	Five-day biochemical oxygen demand
CaCO3	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
Total Coliform	Using a minimum of 15 tubes or three dilutions.
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

TO: Scott J. Hatton
Supervising Water Resource Control Engineer

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APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER DISCHARGE SYSTEMS; RIVER ISLAND EAST HOMEOWNERS ASSOCIATION; RIVER ISLAND EAST WASTEWATER TREATMENT FACILITY; TULARE COUNTY

On 8 December 2017, 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 River Island East Homeowners Association (Home Owners Association), River Island Wastewater Treatment Facility (Facility or WWTF) in Tulare County. The Facility is located at 31989 River Island Drive, Porterville in Tulare County. The Facility and disposal area are shown on the Springville U.S. Geological Survey 7.5 minute quadrangle map in Section 16, Township 21 South, Range 29 East Mount Diablo Baseline and Meridian. The wastewater treatment and disposal sites are granted a perpetual easement through a legal agreement between the River Island Country Club and the Home Owners Association on Assessor's Parcel No. 284-550-033-000.

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 Facility is currently regulated by Waste Discharge Requirements (WDRs) Order 91-111, which authorizes a discharge of up to 56,000 gallons per day to a leachfield. The Monitoring and Reporting Program (MRP) for the facility has been revised three times since adoption of the WDRs (1995, 2009, and 2014).

The Central Valley Water Board issued the Discharger a 13267 Order on 21 February 2006, which enclosed an inspection report from a 21 October 2005 inspection. The inspection report identified violations of WDRs Order 91-111, including odors causing nuisance conditions and effluent limit violations of biochemical oxygen demand (BOD), total suspended solids (TSS), and total coliform organisms. The 13267 letter cited the violations identified in the inspection report and required the Discharger submit the following reports to achieve compliance its WDRs:

- Complete self-monitoring reports in compliance with MRP 91-111;
- A technical report documenting calibration of all meters used to monitor the WWTF (flow and electrical conductivity), and maintenance and repair of aeration tank air supply nozzles;
- A technical report and work plan for a comprehensive technical evaluation of the WWTF including at the minimum, the following:
    a. Identification of improvements necessary to bring the WWTF into full and consistent compliance,
    b. Evaluation of the current disinfection method and its adequacy,
    c. Update of the WWTF operation and maintenance manual.

The Discharger submitted an 8 May 2006 technical report titled *Evaluation & Recommendations of the River Island East WWTF* and a 26 July 2006 reported titled *Technical Report of Drip Dispersal*. A 21 August 2006 Central Valley Water Board letter determined that the 8 May 2006 technical report satisfied the requirements of the 21 February 2006 13267 Order and transmitted a draft revised MRP. The technical report stated that the WWTF flow meter was calibrated and odors were under control and proposed to repair the WWTF aeration tank and to replace the existing leach field with a Geoflow subsurface drip irrigation system.

In an 8 August 2017 e-mail and a 6 September 2017 letter, Central Valley Water Board staff requested that the Home Owners Association submit a RWD and technical report requesting coverage under the General Order. On 8 December 2017 Water Dynamics (contract operator) submitted a complete RWD on behalf of the Discharger. The RWD was signed and stamped by Robert E. Dawyot (RCE 27580).

DESCRIPTION OF DISCHARGE

The River Island East development currently consists of 68 developed lots and 37 undeveloped lots. In addition, five houses outside of River Island East discharge to

the wastewater collection system for a total of 73 developed lots that discharge to the Facility.

The Facility consists of an influent lift station, influent fine screen, a flow equalization tank, two extended aeration package treatment units, dual tertiary sand filters, dual ultraviolet light (UV) disinfection units, a GeoFlow subsurface drip irrigation system, and a 100 KW standby generator. The two package treatment plants each have a capacity of 30,000 gallons per day (gpd) and consist of an anoxic/aeration tank, clarifier with sludge air lift, surface skimmer, and an effluent weir.

Concentrated sludge is hauled to the City of Porterville wastewater treatment facility for treatment and disposal. Screenings are washed, dewatered, and placed in a dumpster for landfill disposal.

As mentioned above, disposal is to a GeoFlow subsurface drip irrigation system. A 26 July 2006 *Technical Report of Drip Dispersal* (2006 Technical Report) prepared on behalf of the Discharger by Northstar Engineering indicates the design capacity of the GeoFlow subsurface drip irrigation system is 56,000 gpd. A 17 October 2008 California Department of Public Health (now Division of Drinking Water) letter agreed with the classification of the GeoFlow subsurface drip irrigation system as disposal rather than reclamation and that the Discharger was therefore not subject to the requirements of Title 22. The letter encourages the Central Valley Water Board include strong language against surfacing and ponding of effluent and include continuous UV intensity monitoring and recording and reporting of the lowest daily UV intensity.

Waste Discharge Requirements Order 91-111 includes the following limits:

- Flow limit of 56,500 gpd.
- BOD and TSS effluent limit of 40 mg/L (monthly average) and 80 mg/L (daily maximum). The TSS effluent limitations are only applicable when groundwater is within five feet of leachfield trench bottoms (no longer in existence).
- Settleable solids effluent limitations of 0.2 ml/L (monthly average) and 0.5 ml/L (daily maximum).
- Total coliform effluent limitations of 23 MPN/100 ml (7-day average) and 240 MPN/100 ml (daily maximum). The total coliform effluent limitations are only applicable when groundwater is within five feet of leachfield trench bottoms (no longer in existence).
- Electrical conductivity (EC) effluent limitation requiring that the maximum EC of the discharge shall not exceed the weighted average of source water EC plus 500 µmhos/cm or 900 µmhos/cm, whichever is less.

Table 1 below shows effluent wastewater quality for January 2017 through December 2019 (flow and turbidity are monthly averages; other constituents are one sample per month).

Table 1 - Effluent Quality

Month	Flow (gpd)	Turbidity (NTU)	Total Coliform (MPN/100 mL)	EC (µmhos/cm)	pH (S.U.)	Nitrate as N (mg/L)	TKN (mg/L)	Total N (mg/L)
Jan-17	9,292	0.81	< 2	1,100	8.0	11	2.4	14
Feb-17	8,661	0.6	7	1,255	7.2	15	2.3	17
Mar-17	7,573	0.54	< 2	1,801	7.5	20	2.3	22
Apr-17	7,497	0.61	< 2	1,491	7.5	13	2.4	15
May-17	7,521	0.61	2	1,830	7.9	19	2.7	22
Jun-17	7,307	0.69	4.5	1,693	7.7	12	1.4	14
Jul-17	7,324	0.65	130	1,806	8.2	12	1.7	14
Aug-17	8,209	0.57	4.5	1,344	7.8	9.2	2.4	12
Sep-17	8,208	0.51	542	1,268	8.4	7.6	1.8	9.4
Oct-17	9,372	0.69	<2	1,104	8.3	11	1.8	13
Nov-17	7,845	0.67	<2	1,155	7.8	10	1.3	11
Dec-17	8,132	0.57	<2	1,092	7.7	17	1.4	18
Jan-18	8,450	0.34	<2	1,307	7.7	7	1.4	8.4
Feb-18	7,860	0.44	<2	1,224	7.8	9.7	1.8	11
Mar-18	8,058	3.29	<2	1,207	7.3	6.2	1.9	8
Apr-18	7,426	1.34	4	1,700	7.9	4.5	0.57	5.1
May-18	6,964	0.52	2	1,402	8	1.9	0.87	2.8
Jun-18	6,551	0.51	<2	1,496	7.5	3.9	1.2	5.2
Jul-18	7,127	0.52	5	1,390	7.9	2.3	0.9	3.2
Aug-18	7,338	0.45	<2	1,318	7.8	ND	2.8	2.8
Sep-18	7,019	0.26	<2	1,289	7.2	1.2	1	2.2
Oct-18	7,177	0.28	<2	1,017	7.5	11	1.7	14
Nov-18	9,121	0.36	<2	1,000	7.5	4.3	1.4	5.6
Dec-18	3,117	0.29	<2	974	7.9	9.6	1.8	11
Jan-19	7,823	0.63	>1,600	1,009	7.4	2.5	0.66	3.1
Feb-19	8,146	0.91	<2	1,001	7.4	7.5	1.2	8.6
Mar-19	9,129	0.53	79	555	8	9.8	1.1	11
Apr-19	8,415	0.22	14	1,299	7.9	20	2	24
May-19	8,689	0.39	51	1,344	7.8	14	1.5	15
Jun-19	7,504	0.18	<2	1,490	7.8	13	1.5	14
Jul-19	9,076	N/A	23	1,466	7.7	2.8	1.1	3.9
Aug-19	8,285	N/A	8	1,414	7.86	5.7	1.8	7.6
Sep-19	8,193	N/A	<2	1,322	7.98	11	1.7	12
Oct-19	8,151	N/A	7.8	1,059	7.68	14	11	26
Nov-19	7,984	N/A	>1600	1,520	7.65	5.1	3.9	9
Dec-19	7,945	9.25	4.5	1,281	7.57	22	2.2	24
Ave.	**7,847**	**1**	**56**	**1,306**	**7.65**	**10**	**2**	**12**

BOD and TSS data were not included in Table 1 because TSS was reported as non-detect for every month during this period while BOD was reported non-detect for every month except for December 2018 (24 mg/L) and November 2019 (3.4 mg/L).

The Facility's monthly average discharge flow is under 100,000 gallons per day and is therefore eligible for coverage under the General Order. In a 3 March 2020 telephone conversation, Mr. Michael Mahoney, president of the River Island East HOA requested a flow limit of 50,000 gpd to be eligible for a 50 percent fee reduction. Because the Discharger wishes to have a flow limit of 50,000 gallon per day, a nitrogen evaluation is included below.

POTENTIAL THREAT TO WATER QUALITY

Finding 3 of WDRs 91-111 states that a mounded leach field system would be constructed where groundwater is less than 5 feet below the ground surface (bgs) and a conventional system elsewhere. The leachfield system was replaced with a Geoflow subsurface drip irrigation system sometime between 2006 and 2008. A 21 August 2006 Central Valley Water Board letter describes the proposed Geoflow system as a pressurized subsurface drip tubing system to disperse the treated effluent at about 6 to 8 inches below ground surface in order to increase separation from groundwater. The 1st quarter of 2019 self-monitoring report includes quarterly groundwater depth monitoring for monitoring wells 2-9. During the 1st quarter of 2019, groundwater depth ranged between 2.88 to 5.52 feet bgs.

Finding 6 of the General Order states dischargers enrolled under the General Order must comply with the applicable Basin Plan requirements, and that between the requirements of the General Order and the Basin Plan, the more stringent requirements prevails. The Tulare Lake Basin Plan, Section 3.2.1 contains a water quality objective for bacteria requiring groundwater designated as municipal and domestic supply (MUN) have total coliform of less than 2.2 MPN/100 mL over any 7-day period. Because of the shallow depth to groundwater and its MUN designation, it is appropriate to carryover the effluent total coliform limits of 23 MPN/100 mL over any 7-day period and a daily maximum limit of 240 MPN/100 mL.

WDRs 91-111 include receiving water limitations for groundwater electrical conductivity (annual average incremental increase of 3 µmhos/cm based on most recent five years or maximum of 900 µmhos/cm), total coliform organisms (not exceed 2.2 MPN/100 mL over any seven-day period), and taste and odor producing substances. Revised MRP 91-111 (issued on 1 February 2014) requires quarterly groundwater monitoring for depth to groundwater, groundwater elevation, pH, EC, nitrate as N, total coliform organisms, and annual monitoring for general minerals.

The 2006 Technical Report mentioned above states that "[t]he flow direction of shallow groundwater is assumed to follow the topographic slope, toward the Tule River in a southerly direction." In that case, MW-6, MW-7, MW-8 and MW-9 would be considered upgradient while MW-2, MW-3, MW-4, and MW-5 would be considered downgradient.

The upgradient monitoring wells, located on the northern side of the disposal area are near homes equipped with septic tank/leachfield systems, which could potentially impact monitoring results (as shown below). The Discharger does not typically report groundwater elevation as required by the MRP; however, they did report groundwater elevation in the 2019 2nd Quarter Monitoring Report, which confirms that the groundwater gradient is to the south/southwest following the topographic slope.

Table 2 below shows the results of quarterly groundwater sampling in which violations of groundwater total coliform limits occurred for the period January 2017 through December 2019. Upgradient Monitoring Wells (specifically MW-6 and MW-9) consistently have total coliform detections, which could indicate that groundwater in the area is being degraded by the surrounding individual onsite wastewater treatment systems.

Table 2 - Quarterly Total Coliform Violations in Groundwater (MPN/100ml)

Quarter	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9
1st QTR 2017	-	-	3.6	9.2	>23	>23	>23	9.2
2nd QTR 2017	-	-	9.2	>23	>23	16	6.9	23
3rd QTR 2017	>23	>23	>23	>23	>23	-	>23	>23
4th QTR 2017	-	-	-	-	>23	-	-	23
1st QTR 2018	-	-	-	-	>23	-	-	23
3rd QTR 2018	-	-	-	-	23	>23	-	>23
1st QTR 2019	-	-	23	16	>23	>23	>23	>23
2nd QTR 2019	>23	>23	>23	>23	>23	>23	>23	>23
3rd QTR 2019	>23	>23	>23	>23	>23	>23	>23	>23
4th QTR 2019	-	23	>23	>23	>23	>23	>23	16

In addition to the total coliform violations above, total nitrogen was reported above 10 mg/L in the 3rd quarter of 2017 (19 mg/L for MW-5) and 1st quarter of 2018 (12 mg/L for MW-9).

NITROGEN EVALUATION

The current flow rate for the Facility averages under 10,000 gallons per day; however, a nitrogen evaluation is appropriate because the Discharger has requested a the flow limit of 50,000 gallons per day in order to accommodate potential development of the remaining 37 undeveloped lots. Based on the following information (from the RWD, self-monitoring reports and the 2006 Technical Report) and the guidelines in Attachment 1 of the General Order, an annual average nitrogen limit requiring 50% reduction is appropriate for the Facility. Based on available data, it appears the Discharger would be able to comply with this annual effluent limitation.

1. The Facility's flow limit will exceed 20,000 gpd.

2. The disposal area meets the definition of shallow groundwater and excessive percolation rate from Table 5 of Attachment 1 of the General Order.

a. Percolation rates range from 2-60 minutes per inch according to the 2006 Technical Report, and

b. Groundwater ranges between 2.72 to 5.41 feet below ground surface (reported in the 2019 1st Quarter Monitoring Report)

3. From January 2017 through June 2019 the effluent total nitrogen averaged 11 mg/L and ranged from 2.2 mg/L to 24 mg/L.

4. Additional nitrogen attenuation will occur from plant uptake on the golf course.

SETBACKS

Table 3: *Summary of Wastewater System Setbacks* of the General Order includes setback distances for aerobic treatment units and subsurface disposal system. In a 10 August 2019 e-mail, Monty Dill, contract operator for the Discharger, provided coordinates for drinking water wells in the vicinity of the discharge. The closest well (Well 2) is approximately 1,100 feet from the eastern boundary of the subsurface disposal system (upgradient). Two other wells (Wells 30 and 31) are approximately 2,500 feet southwest of the subsurface disposal system. These setbacks meet the requirements of Table 3.

MONITORING REQUIREMENTS

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

- Activated Sludge Monitoring
- Disinfection System Monitoring
- Subsurface Disposal Area
- Solids Disposal Monitoring
- Groundwater 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 approximately four miles to the east of Groundwater Basin 5-022.09 (San Joaquin Valley - Tule) in 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 may be found on the internet (https://www.cvsalinity.org/public-info).

RECOMMENDATION
Staff proposes to enroll the Facility under the General Order, incorporating the following limits:

- A monthly average daily flow limit of 50,000 gallons per day;
- BOD and TSS effluent limits of 30 mg/L (monthly average) and 45 mg/L (7-day average) pursuant to Table 4 of the General Order;
- An annual total nitrogen limit requiring 50% reduction as required by the General Order for “Low Threat” (Adequate Attenuation) Situations; and
- Effluent total coliform limits of 23 MPN/100 mL (as a 7-day average) and 240 (daily maximum) to ensure protection of the Basin Plan water quality objective for bacteria.