



Central Valley Regional Water Quality Control Board

29 May 2020

Dale Gonzales, Director
California Water Service Company
1720 N. First Street
San Jose, CA 95112

CERTIFIED MAIL
7018 1830 0001 2775 3887

NOTICE OF APPLICABILITY

CENTRAL VALLEY WATER BOARD RESOLUTION R5-2018-0085; WAIVER OF REPORTS OF WASTE DISCHARGE AND WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE CENTRAL VALLEY REGION; CALIFORNIA WATER SERVICES COMPANY; NORTH GARDEN SYSTEM BACKWASH DISCHARGE; KERN COUNTY

On 9 April 2020, Dale Gonzales with California Water Service Company (hereafter Cal Water or Discharger) submitted a Report of Waste Discharger (RWD) for coverage under Resolution R5-2018-0085, *Approving Waiver of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge Within the Central Valley Region* (or Low Threat Waiver) for the discharge of backwash water from two wellhead treatment stations (Stations 214-01 and 219-01) within Cal Water's North Garden System in the Bakersfield District in Kern County.

Based on the information provided in the RWD and additional information provided by Dale Gonzales, the operator for the system, the discharge meets the required conditions for approval under the Low Threat Waiver. You are hereby assigned enrollee number **R5-2018-0085-0042**. Please include this number on all correspondence related to this discharge. A [copy of the Low Threat Waiver](#) is enclosed and available on the Central Valley Water Board's website at (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf).

Please familiarize yourself with the contents of the Low Threat Waiver, including the Conditions of Discharge (Attachment A of the Low Threat Waiver). The discharge must be managed in accordance with the requirements contained in the Conditions of Discharge and with the information submitted in the RWD and this Notice of Applicability (NOA). The Low Threat Waiver will expire on **7 December 2023**. Prior to this date, the Discharger shall

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

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

contact the Central Valley Water Board and either cease the discharge or submit a new RWD and application fee to continue the discharge under a renewed waiver, general order, or individual waste discharge requirements.

In accordance with the requirements in Attachment A of the Low Threat Waiver (Table 1, Category 13), this NOA is accompanied by Monitoring and Reporting Program (MRP) R5-2018-0085-0042 to ensure compliance with the conditions in the Low Threat Waiver.

LOCATION

Stations 214-01 and 219-01 are in Cal Water's North Garden System in the Bakersfield District and are as shown in **Attachment A** and **Attachment B**, respectively. Station 214-01 is at 12506 Spoleto Avenue (35° 25' 08" N, 119° 08' 26" W). Station 219-01 is at 12014 Novara Avenue (35° 25' 33" W, 119° 08' 09" W). These stations are both about 10 miles northwest of Bakersfield in Kern County. This portion of Kern County is within the Tulare Lake Basin.

The operative Water Quality Control Plan for the Tulare Lake Basin (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the basin.

DISCHARGE DESCRIPTION

Cal Water installed well head treatment systems consisting of two Model-12 Calgon granular activated carbon (GAC) vessels at both Station 214-01 and Station 219-01 to remove 1,2,3-trichloropropane (or 1,2,3-TCP) from groundwater for drinking water consumption. Each treatment system consists of two GAC vessels, a lead vessel and lag vessel. Due to sediment build up and accumulation of calcium and biofilm, backwashing frequency of the lead GAC vessel is projected to occur either annually or once every two years.

The 12-foot diameter GAC vessel requires flushing at a rate of about 832 gallons per minute (gpm) for a duration of 45 minutes (or approximately 37,500 gallons). Under normal operation, the GAC vessel operates by well water entering the top of vessel and flowing downward. During backwashing, this process is reversed with well water entering the bottom surface first then exiting through the top. A process flow diagram is included as **Attachment C**.

During the initial backwash, Cal Water proposes to acquire one or more rental trucks in order to retain all backwash water onsite for sampling. Sampling will include pH, electrical conductivity (EC), metals, and 1,2,3-TCP. If lab results indicate all contaminants are within acceptable levels (i.e., below maximum contaminant levels), water shall be discharged into nearby retention basins (or basins). Both Stations 214-01 and 219-01 have adjacently located retention basins, owned by the City of Bakersfield, as shown in Attachments A and B. The RWD included a use agreement from the City of Bakersfield for the discharge of backwash water to these terminal retention basins. According to Cal Water, Basin 224 is adjacent to Station 214-01 and has an estimated capacity of 3,258,065 gallons while Basin 270, adjacent to Station 219-01, has an estimated capacity of about 1,120,205 gallons.

Cal Water does not anticipate constituent concentrations in the backwash water will require the water to be treated prior to discharge. However, a tank truck filled with GAC will be connected for necessary remediation prior to the discharge to the retention basins, if necessary. The RWD included laboratory data for untreated raw well water for Stations 214-01 and 219-01, provided in the tables below.

Table 1: Station 214-01 Well Water (Untreated)

Parameter	Date Sampled	Lab Result	Detection Limit	Unit
pH	2/3/2020	8.9	N/A	Std Unit
EC	7/17/2019	498	1	µmhos/cm
1,2,3 – TCP	2/9/2020	0.097	0.005	ug/L
Aluminum	7/17/2019	ND	50	ug/L
Antimony	7/17/2019	ND	6	ug/L
Arsenic	7/17/2019	ND	2	ug/L
Total Chromium	7/17/2019	ND	10	ug/L
Copper	7/17/2019	ND	50	ug/L
Mercury	7/17/2019	ND	1	ug/L
Manganese	7/17/2019	ND	20	ug/L
Nickel	7/17/2019	ND	10	ug/L
Lead	7/17/2019	ND	5	ug/L
Silver	7/17/2019	ND	10	ug/L
Selenium	7/17/2019	ND	5	ug/L
Zinc	7/17/2019	ND	50	ug/L

Table 2: Station 219-01 Well Water (Untreated)

Parameter	Date Sampled	Lab Result	Detection Limit	Unit
pH	2/4/2020	8.9	N/A	Std Unit
EC	8/27/2019	498	1	umhos/cm
1,2,3 – TCP	12/12/2019	0.097	0.005	ug/L
Aluminum	8/27/2019	ND	50	ug/L
Antimony	8/27/2019	ND	6	ug/L
Arsenic	8/27/2019	ND	2	ug/L
Total Chromium	8/27/2019	ND	10	ug/L
Copper	8/27/2019	ND	50	ug/L
Mercury	8/27/2019	ND	1	ug/L
Manganese	8/27/2019	ND	20	ug/L
Nickel	8/27/2019	ND	10	ug/L
Lead	8/27/2019	ND	5	ug/L
Silver	8/27/2019	ND	10	ug/L
Selenium	8/27/2019	ND	5	ug/L
Zinc	8/27/2019	ND	50	ug/L

FACILITY-SPECIFIC REQUIREMENTS

The Low Threat Waiver and this NOA covers the discharge of filter backwash water from Stations 214-01 and 219-01. The Discharger shall comply with the requirements specified in the Low Threat Waiver and the facility-specific requirements listed below.

1. Discharge of filter backwash water shall be conducted as described in the RWD and in accordance with the requirements contained in the Low Threat Waiver.
2. Discharge of filtered backwash water at a location or in a manner different from that described in this NOA is prohibited.
3. The Discharger shall comply with the attached Monitoring and Reporting Program (MRP) R5-2018-0085-0042
4. Runoff or discharge of filter backwash water to a wetland, surface water (other than the retention basins specified above), surface water drainage course, or biologically or culturally sensitive area is prohibited.
5. Failure to comply with the requirements of this NOA, attached MRP R5-2018-0085-0042, and the Low Threat Waiver, could result in enforcement actions as authorized by provisions of the California Water Code.
6. The Discharger shall notify the Central Valley Water Board of any change in agreement or proposed use of the discharge of backwash water as described in the RWD and this NOA.

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleyfresno@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

Facility Name: Bakersfield District, North Garden System, Stations 214-01 & 219-01
Program: NON-15.
Resolution: R5-2018-0085-0042
CIWQS Place ID: 866792

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to:

Central Valley Regional Water Quality Control Board Fresno Office
1685 E Street
Fresno, CA 93706

All documents, including responses to inspections and written notifications, submitted to comply with this Waiver 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 Russel.Walls@waterboards.ca.gov. Questions regarding the permitting aspects of the Waiver, and notification for termination of coverage under the Waiver, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Katie Carpenter. Ms. Katie Carpenter can be reached at (559) 445-5551 or by email at Katie.Carpenter@waterboards.ca.gov.

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

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

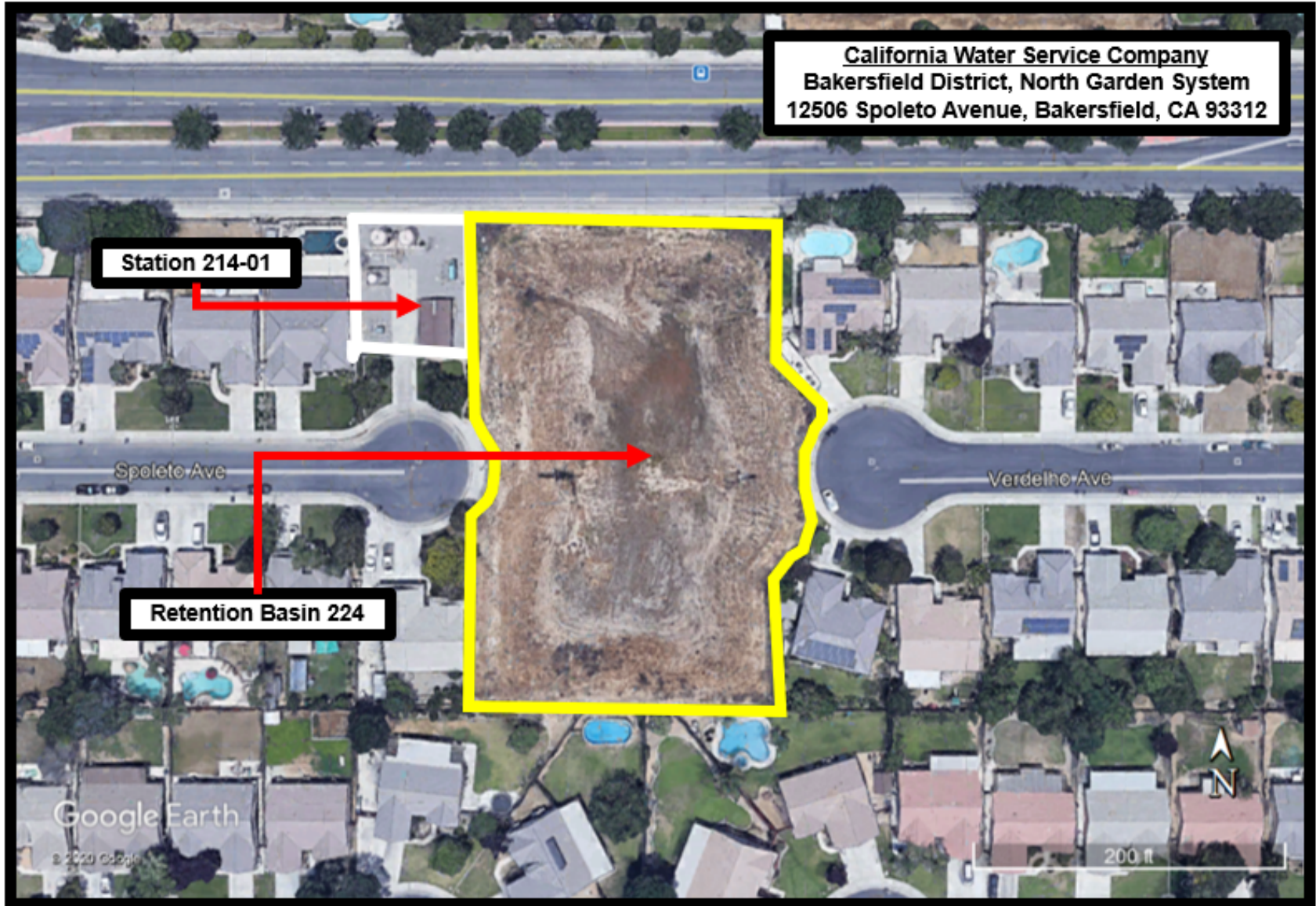
Original Signed by Clay L. Rodgers for
Patrick Pulupa,
Executive Officer

Attachments: Attachment A – Station 214-01
Attachment B – Station 219-01
Attachment C – Flow Diagram

Enclosures: Low Threat Waiver Resolution R5-2018-0085
Monitoring and Reporting Program R5-2018-0085-0042

cc w/o encs.: Chad Fisher, State Water Board Division of Drinking Water, (via email)
Russell Walls, Central Valley Water Board, (via email)
Kern County Environmental Health, Bakersfield
Jason Meadors, City of Bakersfield, (via email)
Neil McQueen, McQueen Environmental Consulting, (via email)

ATTACHMENT A – Station 214-01

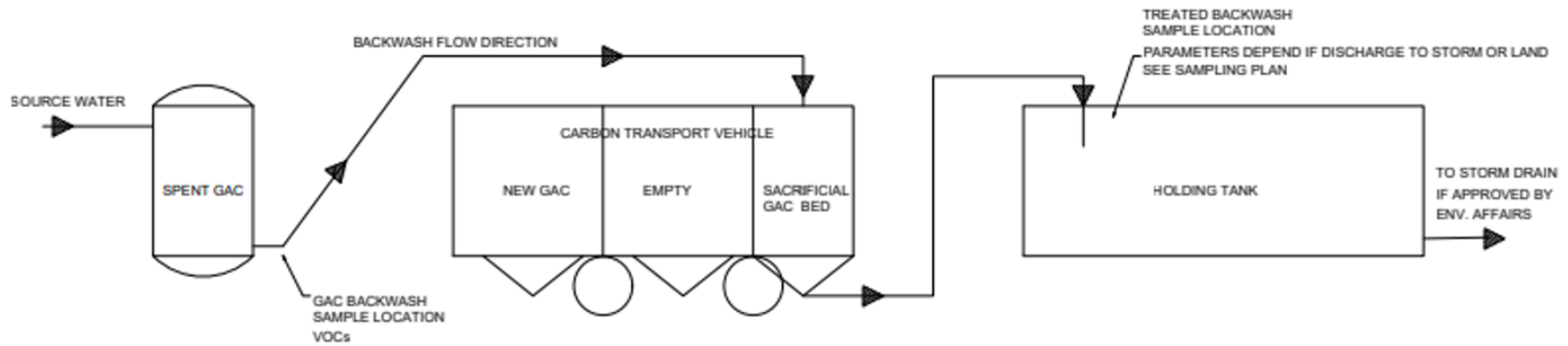


ATTACHMENT B – Station 219-01



ATTACHMENT C – Process Flow Diagram

GAC BACKWASH FLOW



Provided by
McQueen Environmental Consulting

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

**MONITORING AND REPORTING PROGRAM R5-2018-0085-0042
FOR
CALIFORNIA WATER SERVICE COMPANY
NORTH GARDEN SYSTEM BACKWASH DISCHARGE
KERN COUNTY**

On 29 May 2020 the Central Valley Regional Water Quality Control Board (Central Valley Water Board) Executive Officer issued California Water Service Company (Cal Water or Discharger) Notice of Applicability (NOA) R5-2018-0085-0042 for coverage under Resolution R5-2018-0085, *Approving Waiver of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge Within the Central Valley Region* (Low Threat Waiver or Waiver). NOA R5-2018-0085-0042 is for the discharge of filter backwash water to land from granular activated carbon (GAC) vessels. The GAC vessels are at Stations 214-01 and 219-01 within Cal Water Bakersfield District's North Garden System. This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts, or the Executive Officer issues, a revised MRP.

Section 13267, subsection (b)(1) of the California Water Code states:

"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."

The Discharger owns the water treatment systems that are subject to NOA R5-2018-0085-0042, and the monitoring reports are necessary to ensure the Discharger complies with the NOA and the conditions specified in the Low Threat Waiver. Pursuant to Water Code section 13268, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

Section 13268 of the California Water Code states, in part:

"(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, 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.”

A glossary of terms used in this MRP is included on the last page.

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. The measurements may be based on flow meter readings or pump run time estimate. The method of measurement must be specified. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

B. MONITORING AND SAMPLING LOCATIONS

Samples shall be obtained at the monitoring points specified in this MRP. The Central Valley Water Board Executive Officer shall approve any proposed changes to sampling locations prior to implementation of the change.

The Discharger shall monitor the following locations (Tables 1 and 2) to demonstrate compliance with the requirements of this MRP:

Table 1. Station 214-01 Monitoring Locations

Monitoring Location	Monitoring Location Description
INF-001	Location where a sample of the backwash water from Station 214-01 can be collected after the GAC vessel(s) but prior to treatment and/or discharge to the unlined basin.
EFF-001	Location where a sample of the backwash water from Station 214-01 can be collected after treatment but prior to discharge to the unlined basin.
Basin 224	Unlined basin used for discharge of backwash water from Station 214-01.

Table 2. Station 219-01 Monitoring Locations

Monitoring Location	Monitoring Location Description
INF-002	Location where a sample of the backwash water from Station 219-01 can be collected after the GAC vessel(s) but prior to treatment and/or discharge to the unlined basin.
EFF-002	Location where a sample of the backwash water from Station 219-01 can be collected after treatment but prior to discharge to the unlined basin.
Basin 270	Unlined basin used for discharge of backwash water from Station 219-01.

C. SAMPLING AND SAMPLE ANALYSIS

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the “Reporting” section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA);
- *Test Methods for Evaluating Solid Waste* (EPA);
- *Methods for Chemical Analysis of Water and Wastes* (EPA);
- *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA);

- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and
- *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water’s Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

II. SPECIFIC MONITORING REQUIREMENTS

A. WATER TREATMENT SYSTEM BACKWASH

Monitoring related to the discharge of backwash water from Stations 214-01 and 219-01 shall consist of the following.

Influent Monitoring

Influent samples shall be taken of the backwash water at INF-001 and INF-002 after it leaves the GAC vessel(s) but prior to any treatment and/or discharge to the unlined basin(s). At a minimum, influent monitoring shall consist of the following:

Table 3. Influent Monitoring

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Flow	gallons	Meter	Continuous	Annually
pH	pH units	Grab	Once per Event	Annually
EC	µmhos/cm	Grab	Once per Event	Annually
TSS	mg/L	Grab	Once per Event	Annually
1,2,3-TCP	µg/L	Grab	Once per Event	Annually
General Minerals	various	Grab	Once/3 years	Annually

Effluent Monitoring

Effluent samples shall be taken of the backwash water at EFF-001 and EFF-002 after treatment but prior to discharge to the unlined basin(s). If the backwash water is not treated, effluent monitoring is not required. At a minimum, effluent monitoring shall consist of the following:

Table 4. Effluent Monitoring

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Flow	gallons	Meter	Continuous	Annually
pH	pH units	Grab	Once per Event	Annually
EC	µmhos/cm	Grab	Once per Event	Annually
1,2,3-TCP	various	Grab	Once per Event	Annually

B. BASIN MONITORING

The Discharger shall inspect Basins 224 and 270 both prior to and during each backwash event from Station 214-01 and 219-01, respectively. The results of the inspection shall be included as part of the annual monitoring report. Basin monitoring shall include the following:

Table 5. Basin Monitoring

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Reporting Frequency</u>
Freeboard	feet	Measurement	Annually
Nuisance Odors or Vectors	--	Observation	Annually
Berm Condition	--	Observation	Annually

In addition, prior to each backwash event, the Discharger shall contact the City of Bakersfield to confirm acceptance of the discharge and implement any additional best management practices (BMPs) as required by the City of Bakersfield for the discharge.

C. SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids associated with the water treatment system and discharge of backwash water (e.g., filter material, sludge from the unlined basins, etc.). Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed, the disposal facility name and address, and copies of any analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

III. REPORTING REQUIREMENTS

All monitoring reports 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 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
Region 5 – Fresno Office
1685 “E” St.
Fresno, California 93706

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15,
Facility: Bakersfield District, North Garden System, Stations 214-01 & 219-01
Order: MRP R5-2018-0085-0042
County: Kern
Place ID: 866792

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger’s authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer’s knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports shall be included in the monitoring reports. All laboratory reports must also be retained for a minimum of three years. For a discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

Monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to

practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

A. ANNUAL MONITORING REPORTS

The Annual Monitoring Report shall be submitted to the Central Valley Water Board by **February 1st of each year**. The report shall bear the certification and signature of the Discharger or his/her authorized representative. At a minimum, the annual report shall include the following information.

1. Results of all required monitoring data shall be presented in tabular format. If no discharge occurred during the calendar year the annual report shall so state.
2. Copies of all laboratory analytical report(s) and chain of custody form(s) for in-house and contracted laboratory analyses.
3. The names and contact information for the operator(s) responsible for operation, maintenance, and monitoring of the treatment system and discharge of filter backwash water.
4. A discussion and summary of the compliance record for the reporting period identifying all corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or Low Threat Waiver.
5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the NOA and the conditions specified in the Low Threat Waiver, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 MRP, 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 on request.

The Discharger shall implement the above monitoring program by the date of this MRP.

Ordered by: *Original Signed by Clay L. Rodgers for*

PATRICK PULUPA, Executive Officer

5/29/2020

(Date)

IV. 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.
Once per Event	Samples shall be collected once during each backwash event.
Once/3 Years	Sample shall be collected once during the first backwash event, and at least once every three years.
Daily	Every day except weekends or holidays.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Annually	Once per year. Annual samples shall be collected in the third quarter between July and September.
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
General Minerals	Analysis shall include; alkalinity (as CaCO ₃), bicarbonate (as CaCO ₃), boron, calcium, carbonate (as CaCO ₃), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, and verification that the analysis is complete (i.e., cation/anion balance).