
Central Valley Regional Water Quality Control Board

3 July 2019

Van Grayer, General Manager
Vaughn Water Company
10014 Glenn Street
Bakersfield, CA 93312

CERTIFIED MAIL
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NOTICE OF APPLICABILITY

CENTRAL VALLEY WATER BOARD 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; VAUGHN WATER COMPANY; HAGEMAN #2 WATER TREATMENT SYSTEM BACKWASH; KERN COUNTY

On 15 May 2019, Vaughn Water Company (Company or Discharger) submitted a Report of Waste Discharge (RWD) to obtain 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) for discharges of filter backwash water to land from its Hageman #2 Water Treatment System (Facility). According to the RWD, backwash water will be discharged to an unlined sump at the Facility. The Facility is currently regulated under a previous waiver, Resolution R5-2008-0182-010, which expired on 4 December 2013.

Based on the information provided in the RWD, the discharge meets the conditions of the Low Threat Waiver. The discharge is hereby enrolled under the Low Threat Waiver and assigned **enrollee number R5-2018-0085-0012**, and coverage under your existing waiver is officially terminated. Please include your enrollee number on all correspondence related to this discharge. In accordance with the requirements in Attachment A of the Low Threat Waiver, this NOA is accompanied by Monitoring and Reporting Program (MRP) R5-2018-0085-0012 to ensure compliance with the conditions in the Low Threat Waiver. This MRP was developed after consideration of your waste characterization and disposal practices described in the RWD.

PROJECT LOCATION

The Facility at 15684 Hageman Road, Bakersfield in Kern County is approximately 6.5 miles west of the city of Bakersfield; Latitude 35.3986°, Longitude -119.1764°

(Assessor's Parcel Number 463-050-65). 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.

PROJECT DESCRIPTION

The Company provides water service for residents in Kern County for the Rosedale area just west of Bakersfield. The Hageman #2 Water Treatment Facility was constructed in 2005 to remove hydrogen sulfide from the raw well water. A deep well pump with a capacity of 2,250 gallons per minute (gpm) pumps groundwater through an ozone treatment system and then into a 60,000-gallon storage tank. The water is then pumped through three granulated activated carbon (GAC) filters to provide polishing. As part of the routine maintenance for the treatment system, the GAC filters are automatically backwashed every three days to fluff the media and flush out particulate material clogging the filters.

The filter system is backwashed using potable water from the water distribution system. The potable water is treated with sodium hypochlorite to maintain a chlorine residual in the distribution system. The backwash process generates about 9,000 gallons per tank and 27,000 gallons per cycle of backwash water. Backwash water is then discharged to an on-site unlined sump. The capacity of the sump is approximately 213,000 gallons.

A sample of the backwash water was collected and submitted as part of the RWD. The results are presented in the table below and compared with samples of the well water prior to treatment and applicable Maximum Contaminant Levels (MCLs) for constituents of concern.

| Constituent | Units | Untreated Well Water (3/19/2019) ¹ | Backwash Sample (5/14/2019) | Maximum Contaminant Levels (MCLs) |
|------------------------------|----------|---|-----------------------------|-----------------------------------|
| Electrical Conductivity (EC) | umhos/cm | 693 | 684 | 900 |
| Total Dissolved Solids (TDS) | mg/L | 330 | 400 | 500 |
| Nitrate as Nitrogen | mg/L | <0.4 | <0.1 | 10 |
| Sodium | mg/L | 152 | 130 | --- |
| Chloride | mg/L | 168 | 180 | 250 |

1. ¹Sample results available on DDW's Public Water Systems database at: https://sdwis.waterboards.ca.gov/PDWW/JSP/MonitoringResults.jsp?tinwsys_is_number=1761&tinwsys_st_code=CA&counter=0.

| Constituent | Units | Untreated Well Water (3/19/2019) 1 | Backwash Sample (5/14/2019) | Maximum Contaminant Levels (MCLs) |
|-------------|-------|---------------------------------------|-----------------------------|-----------------------------------|
| Sulfate | mg/L | 0.8 | 1.7 | 250 |
| Iron | ug/L | <100 | 190 | 300 |
| Manganese | ug/L | <20 | <10 | 50 |
| Arsenic | ug/L | 3 | 3.5 | 10 |

umhos/cm=micromhos per centimeter, mg/L=milligrams per liter, and ug/L=micrograms per liter

Based on the sampling results, the backwash water is of similar quality to underlying groundwater and will not cause exceedances of water quality objectives. Therefore, the discharge of backwash water complies with the terms and conditions in the Low Threat Waiver.

FACILITY-SPECIFIC REQUIREMENTS

1. Discharge of filter backwash water shall be conducted as described in this NOA 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. Discharge of filtered backwash water shall be contained and disposed of onsite.
4. 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.
5. The Discharger shall comply with the attached Monitoring and Reporting Program (MRP) R5-2018-0085-0012.
6. Failure to abide by the conditions of this NOA, attached MRP R5-2018-0085-0012, and the Low Threat Waiver, could result in enforcement actions, as authorized by provisions of the California Water Code.

The Regional Water Quality Control Board, Central Valley Region (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 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: 758255, Facility Name: Vaughn Water Company, Hageman #2 Water Treatment System Backwash, Enrollee Number: R5-2018-0085-0012.

The Low Threat Waiver R5-2018-0085 and this NOA **will expire on 7 December 2023**. Prior to this date, the Discharger shall contact the Central Valley Water Board to submit a new RWD and application fee to continue coverage under a renewed Low Threat Waiver or to obtain individual waste discharge requirements or a waiver.

If you have any questions regarding this NOA, please contact Katie Carpenter at (559) 445-5551 or by email at katie.carpenter@waterboards.ca.gov.

Original Signed by Clay Rodgers for:

Patrick Pulupa
Executive Officer

Enclosures: Monitoring and Reporting Program R5-2018-0085-0012
Resolution R5-2018-0085 (Discharger Only)

cc: Horacio Perez, Vaughn Water Company, Bakersfield (via email)
Kern County Environmental Health Department, Bakersfield
State Water Resources Control Board, Division of Drinking Water, Fresno

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
MONITORING AND REPORTING PROGRAM R5-2018-0085-0012
FOR
VAUGHN WATER COMPANY
HAGEMAN #2 WATER TREATMENT SYSTEM BACKWASH
KERN COUNTY**

On 3 July 2019 the Vaughn Water Company was issued Notice of Applicability (NOA) R5-2018-0085-0012, 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) for discharge of filter backwash water to land from its Hageman #2 Water Treatment System (Facility). This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267. The Vaughn Water Company (or Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or the Executive Officer.

Water Code section 13267 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.”

Water Code section 13268 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, 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 and operates the Facility that is subject to NOA R5-2018-0085-0012. These reports are necessary to ensure that the Discharger complies with the NOA and the conditions specified in the Low Threat Waiver. 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.

WATER TREATMENT SYSTEM BACKWASH

Effluent Monitoring

Effluent samples shall be taken of the backwash water prior to discharge to the unlined sump. At a minimum, effluent monitoring shall consist of the following:

| <u>Constituent</u> | <u>Units</u> | <u>Sample Type</u> | <u>Sample Frequency</u> |
|-------------------------------|--------------|--------------------|----------------------------|
| Flow Rate | gpd | Meter ¹ | Continuous |
| Electrical Conductivity | µmhos/cm | Grab | Semi-Annually ² |
| Total Dissolved Solids | mg/L | Grab | Semi-Annually |
| General Minerals ³ | various | Grab | 1/Three Years ⁴ |

¹ Flow rate may be metered or estimated. Basis for estimate should be provided in annual monitoring report.

² Semi-annual sampling shall be conducted in April and October unless otherwise specified.

³ General Mineral analysis shall include, alkalinity (as CaCO₃), bicarbonate (as CaCO₃), boron, calcium, carbonate (as CaCO₃), chloride, hardness, magnesium, nitrate as nitrogen, phosphate, potassium., sodium, sulfate, total dissolved solids, and include verification that the analysis is complete (i.e., anion/cation balance).

⁴ Sample shall be collected every three years starting in 2020.

SUMP MONITORING

The Discharger shall inspect the unlined sump on a monthly basis. The results of the inspection shall be included as part of the annual monitoring report. Sump monitoring shall include the following:

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

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 sump, 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.

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 discernible. The data shall be summarized to clearly illustrate compliance with the Low Threat Waiver 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;
Facility Name: Vaughn Water Company Hageman #2 Water Treatment System Backwash;
Place ID: 758255;
Order: R5-2018-0085-0012.

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.)
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 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.

A transmittal letter shall accompany each monitoring 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 date of this MRP.

Ordered by:

Original Signed by Clay Rodgers for:

PATRICK PULUPA, Executive Officer

3 July 2019

DATE