



Central Valley Regional Water Quality Control Board

21 February 2020

Liza McNulty
City of Berkeley
2180 Milvia Street, 3rd Floor
Berkeley, California 94704

CERTIFIED MAIL
7019 2970 0001 5206 2698

NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5330, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; CITY OF BERKELEY; BERKELEY TUOLUMNE CAMP ONSITE WASTEWATER TREATMENT SYSTEM, TUOLUMNE COUNTY

On 20 November 2019, the City of Berkeley, submitted a Report of Waste Discharge (RWD) for the Berkeley Tuolumne Camp onsite wastewater treatment system (OWTS or Facility). The Discharger is requesting coverage under the State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ, *General Water Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The Report of Waste Discharge (RWD) included a completed and signed Form 200 and a technical report prepared by Zheng Teng, a California registered civil engineer (RCE 68783).

Based on the information provided and a review of available information, the Facility treats and disposes of less than 100,000 gallons per day (gpd) of domestic wastewater and is eligible for coverage under the General Order. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described. You are hereby assigned General Order **2014-0153-DWQ-R5330** 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-R5330**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

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

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

DISCHARGE DESCRIPTION

The City of Berkeley will own and operate the Facility. Due to damage from the Rim Fire (which started on 17 August 2013 and burned 257,000 acres, including 109 of 128 existing structures at the Berkeley Tuolumne Camp), the City of Berkeley is planning to reconstruct the Berkeley Tuolumne Camp. The Berkeley Tuolumne Camp site is located at Hardin Flat Road, south of State Highway 120 about 21.8 miles south east of Groveland in Tuolumne County (Section 1, Township 15 South, Range 32 East, Mount Diablo Base and Meridian).

The Berkeley Tuolumne Camp will discharge domestic wastewater generated from the dining hall kitchen, restrooms, showers, and laundry to the Facility (as well as backwash water from the drinking water treatment system). The RWD estimates that at full capacity the average daily domestic wastewater flow will be 16,200 gpd and the maximum daily flow (domestic wastewater and backwash water) will be 19,000 gpd.

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-R5330.

In accordance with Section B.1 of the General Order, **treated wastewater discharged to the leachfield system shall not exceed a monthly average daily discharge of 19,000 gpd.** In accordance with the requirements of the General Order this NOA does not specify a nitrogen effluent limitation since the Facility flow rate is less than 20,000 gpd.

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 1: Site-Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line
Septic Tank, Treatment System, or Collection System	150 ft.	50 ft.	50 ft.	5 ft.
Leachfield	100 ft.	100 ft.	50 ft.	5 ft.

The Discharger shall comply with the septic system requirements in Section B.2 of the General Order. The General Order states in Section B.2.d that septic tanks shall be pumped when any of the following conditions exist:

- i. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.

- ii. The scum layer is within 3 inches of the outlet device.
- iii. The sludge layer is within 8 inches of the outlet device.

The Discharger shall comply with the subsurface disposal system requirements in Section B.6 of the General Order, including Section B.6.g, which states leachfield must comply with USEPA Underground Injection Control requirements. The Facility's disposal system is classified as Class V well. Therefore, it must be registered with USEPA either by completing the [Underground Injection Well Registration for Region 9 online form](https://www.epa.gov/uic/forms/underground-injection-well-registration-pacific-southwest-region-9) (<https://www.epa.gov/uic/forms/underground-injection-well-registration-pacific-southwest-region-9>) or by completing and submitting [Form 7520-16: Inventory of Injection Wells](https://www.epa.gov/sites/production/files/2015-10/documents/7520-16_508c.pdf) (https://www.epa.gov/sites/production/files/2015-10/documents/7520-16_508c.pdf).

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 (**21 May 2020**):

- Spill Prevention and Emergency Response Plan (Provision E.1.a.).
- Sampling and Analysis Plan (Provision E.1.b).

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.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5330 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.

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.

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 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: 748025,
Facility Name: Berkeley Tuolumne Camp OWTS,
Order: 2014-0153-DWQ-R5330

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).

All documents, including responses to inspections and written notifications, submitted to comply with this NOA shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Russell Walls. Mr. Walls can be reached at (559) 488-4392 or Russel.Walls@waterboards.ca.gov. Questions regarding the permitting aspects of the NOA, and notification for termination of coverage under the Small Domestic General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Jeff Pyle. Mr. Pyle can be reached at (559) 445-5145 or by email at Jeffrey.Pyle@waterboards.ca.gov.

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

If you have any questions regarding this matter, please contact Jeff Pyle by phone at (559) 445-5145, by email at Jeffrey.Pyle@waterboards.ca.gov.

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

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

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

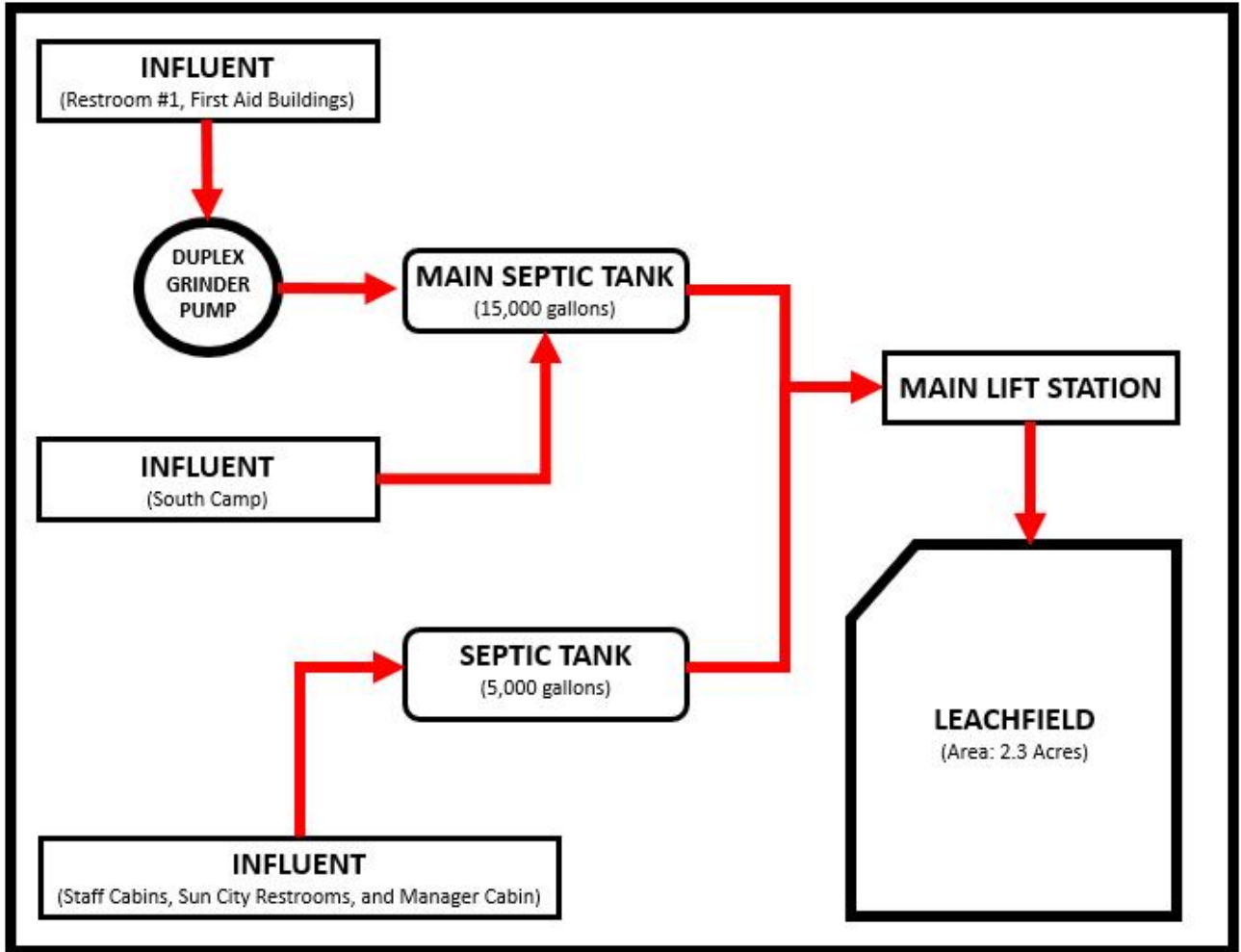
- Enclosures:
- Monitoring and Reporting Program 2014-0153-DWQ-R5330
 - Staff Review Memorandum of the Berkeley Tuolumne Camp OWTS
 - State Water Resources Control Board WQ 2014-0153-DWQ (Discharger Only)

cc:

- Scott Couch, State Water Resources Control Board, Division of Water Quality (via email)
- Tricia Wathen, Division of Drinking Water, Fresno (via email)
- Russel Walls, Senior Engineer, Compliance and Enforcement Unit, Central Valley Water Board, Fresno (via email)
- Liza McNulty, City of Berkeley (via email)
- Jerry Teng, Provost and Prichard Consulting Group (via email)
- Tuolumne County Environmental Health Division, A.N. Francisco Building 48 Yaney Ave. Floors 3 and 4 Sonora, CA 95370



ATTACHMENT A- SITE MAP
 NOTICE OF APPLICABILITY 2014-0153-DWQ-R5330
 CITY OF BERKELEY
 BERKELEY TUOLUMNE CAMP
 ONSITE WASTEWATER TREATMENT SYSTEM
 TUOLUMNE COUNTY



ATTACHMENT B – FLOW SCHEMATIC
 NOTICE OF APPLICABILITY 2014-0153-DWQ-R5330
 CITY OF BERKELEY
 BERKELEY TUOLUMNE CAMP
 ONSITE WASTEWATER TREATMENT SYSTEM
 TUOLUMNE COUNTY

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

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5330

FOR

**CITY OF BERKELEY
BERKELEY TUOLUMNE CAMP
ONSITE WASTEWATER TREATMENT SYSTEM
TUOLUMNE 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. The City of Berkeley (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.

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) 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 will operate the Berkeley Tuolumne Camp and the onsite wastewater treatment system (OWTS or Facility) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5330. 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.

SEPTIC TANK MONITORING

Effluent samples shall be taken from a location that represents the septic tank effluent quality distributed to the leachfield system. At a minimum, effluent monitoring shall include the following:

Table 1 - Septic Tank Effluent Monitoring Requirements

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

All septic tanks shall be inspected and/or pumped at least as frequently as described below in table 2. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

Table 2 – Septic Tank Monitoring Requirements

Parameter	Units	Measurement Type	Inspection/Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank	Feet	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually
Effluent filter condition (if equipped, clean as needed)	NA	NA	Annually

Septic tanks shall be pumped when any one of the following conditions exists:

1. The combined thickness of sludge and scum exceeds one third of the tank depth of this first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

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 seepage pits shall, at a minimum, include the monitoring specific in table 3.

Table 3: Subsurface Disposal Area Monitoring Requirements

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, etc. (see 1. Below)	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
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.
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, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

REPORTING

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

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence 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. Documents that are 50 MB 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: 748025,
Facility Name: Berkeley Tuolumne Camp
Order: 2014-0153-DWQ-R5330

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. A comparison of monitoring data to the requirements (including the flow limitation), disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format).
3. Copies of laboratory analytical report(s) and chain of custody form(s).

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. 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.
3. 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.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

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

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

The Discharger shall implement the above monitoring program on **21 February 2020**. Until the Camp is constructed, the Discharger shall only need to provide quarterly updates on the status of the Camp construction and the anticipated date of commencing discharge to the Facility.

Ordered by:

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

2/21/2020
(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite 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



Central Valley Regional Water Quality Control Board

TO: Scott J Hatton
Supervising Water Resource Control Engineer

FROM Alexander S. Mushegan
Senior Water Resource Control Engineer
RCE 84208

Jeffrey S. Pyle
Engineering Geologist
PG No. 7375

Ernesto Garcia
Scientific Aid

DATE: 21 February 2020

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5330; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; CITY OF BERKELEY; BERKELEY TUOLUMNE CAMP ONSITE WASTEWATER TREATMENT FACILITY; TUOLUMNE COUNTY

On 20 November 2019, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) from the City of Berkeley (City or Discharger) for the Berkeley Tuolumne Camp onsite wastewater treatment system (OWTS or Facility) in Tuolumne County. The RWD requested coverage under the State Water Resources Control Board's Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order) for the Facility. The RWD includes a Form 200 and a technical report prepared by Zheng Teng, a California registered civil engineer (RCE 68783) with Provost & Pritchard Consulting Group. The Discharger also submitted a Geotechnical Engineering Investigation Report dated 2 August 2019, signed and stamped by Paul Cottingham (CEG 2505) and Jonathon Boland (RGE 2763) of ENGEO Incorporated.

BACKGROUND INFORMATION

Berkeley Tuolumne Camp was built in 1922 and is located seven miles from the western entrance to Yosemite National Park. The Camp was destroyed by the Rim Fire

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

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

in 2013 (only 19 of the existing 128 structures survived the fire). The Camp has reportedly been nonoperational since the fire. The City intends to reconstruct the Camp and is currently in the planning/construction phase. The Camp (which operates from April to October) will function as a family camp for the summer months and also a youth camp part of the time for at-risk children and youth with disabilities. The Camp is located at Hardin Flat Road in Groveland (37°48'41.50"N, 119°55'57.08"W) in Tuolumne County. The Facility will treat and dispose of domestic wastewater produced from the reconstructed Berkeley Tuolumne Camp.

The proposed Camp will be comprised of 77 tent decks (200 square feet per tent deck, accommodating 3-4 people each), 19 staff cabins, 4 restrooms buildings, 3 shower buildings, a dining hall (serving up to 360 meals, 3 times a day when at camp capacity), a recreational hall, an outdoor amphitheater, a multi-use sports court, a small archery range, and half a dozen other miscellaneous buildings.

DESCRIPTION OF DISCHARGE

The Facility will consist of two septic tanks (Main Septic Tank with a capacity of 15,000 gallons and a Secondary Septic Tank with a capacity of 5,000 gallons), a main lift station, a duplex grinder pump, a 2.3-acre leachfield area, and a 100 percent replacement area for the proposed leachfield. The Berkeley Tuolumne Camp's source water is proposed to be from the South Fork Tuolumne River, which will be delivered via a raw surface water intake system to a prepackaged water treatment plant and will be stored in a domestic water storage tank. The RWD also proposes to discharge backwash water from the surface water treatment plant to the OWTS.

Attachment B of the Notice of Applicability (NOA) shows a flow schematic for the proposed Facility. Influent generated from buildings on the southern portion of the Camp (Restroom #1 and the First Aid building) will gravity flow to a lift station on the southwest corner of Camp. The influent will be transferred to the Main Septic Tank via a grinding pump. Influent generated from the remaining buildings on the campus will gravity flow to the Main Septic Tank, which will be located by the dining hall. Effluent from the Main Septic Tank will gravity flow across the pedestrian bridge to the main lift station, which is located on the west side of the South Fork Tuolumne River. The sewer line at the crossing is a fusion welded 4-inch high density polyethylene pipe that will be housed within the bridge support framing. The lowest point of the bridge is at least 1 foot above the 100-year water level and all other aspects of the sewer system (pumps, septic tanks, etc.) are located outside of the 100-year flood plain.

Influent generated from Staff Cabins, the Sun City Restrooms, and the Manager Cabin (all proposed to be located on the west side of the South Fork Tuolumne River) will collect in the secondary septic tank. Effluent from the secondary septic tank will gravity flow to the main lift station. The main lift station will pump all collected effluent to the leachfield (proposed location southwest of the North Parking Lot).

Historically, water use records reflect daily peak flows of around 23,000 gpd. The RWD estimated maximum flows for the Facility based on the proposed Camp's maximum capacity (300 campers and 60 staff members). With the newly constructed water system and modern low-flow fixtures, water usage of the redesigned camp will have an

expected peak daily flow of 18,000 gpd (360 people by 45 gallons per day per capita) and an average daily flow of 16,200 gpd. In addition to the domestic wastewater flow, the RWD proposes the Facility will receive an additional 1,000 gpd of backwash water from the surface water treatment system. The backwash flow stream is stored in a settling tank (2,500-gallon tank) before gradual release to sewer system. Therefore, according to the RWD, the leachfield disposal capacity was designed to handle a total flow of about 19,000 gpd.

The General Order states facilities discharging under 100,000 gpd are eligible for coverage. Furthermore, since the Facility will have flows below 20,000 gpd, no nitrogen evaluation is necessary at this time.

POTENTIAL THREAT TO WATER QUALITY

The RWD estimates the influent and sept tank effluent quality for a few constituents. According to the RWD, influent 5-day biochemical oxygen demand (BOD₅) concentrations will be around 430 mg/L and total suspended solids (TSS) concentrations will be around 480 mg/L. These values are higher than the typical domestic wastewater. Provost and Pritchard staff were conservative with their estimates due to the Camp having a commercial kitchen in the dining hall and due to water conservation efforts. Actual values will likely be lower according to Ms. Liza McNulty of the City of Berkeley. The anticipated effluent quality is predicted based on an assumed BOD₅ reduction of 30% within the septic tank and a 60% reduction in TSS. Therefore, the RWD estimates the treated effluent from the septic tank will have BOD₅ around 300 mg/L and TSS around 190 mg/L. The RWD did not address nitrogen in the discharge, but the General Order summarizes the characteristics of domestic wastewater in Table 1 and lists the total nitrogen in septic tank effluent as ranging from 40 mg/L to 100 mg/L. Monitoring the discharge for total nitrogen should be included in the monitoring and reporting program.

SOIL AND GROUNDWATER

According to the RWD, groundwater was not encountered in test pits during field investigations within the proposed leachfield area (range of 6 to 9.5 feet in depth). Groundwater was encountered at depths ranging from 6 to 11.5 feet below the ground surface (bgs) in test pits excavated at lower elevations adjacent the South Fork of the Tuolumne River. The groundwater elevations were reported to range from about 3,495 to 3,535 feet above mean sea level. The average elevation of the leachfield is about 3,600 feet above mean sea level.

As part of the geotechnical exploration discussed in the August 2019 Geotechnical Exploration Report, ENGEО's staff excavated 24 tests pits under direction of Tuolumne County Health Inspector. Soils of silty sand and clayey sand were encountered from 1.5 to 9 feet bgs, with weathered granitic bedrock underlying the surficial soils. Soil findings from ENGEО's field exploration were found to be in reasonable agreement with the United States Department of Agriculture – Soil Survey for the Stanislaus National Forest with soil types predominantly silty sands or clayey sands located in upper soil horizons down to residual weathered granitic bedrock at depth. ENGEО performed percolation testing on 5 September 2018. Percolation rates were estimated using the

“*Falling Head Percolation Test Procedure*” in EPA Design Manual 625/1-80-012. Percolation test holes were dug with a 6-inch diameter hand auger creating test pit depths of 3.5 to 4.5 feet below the surface of the ground with the percolation test holes augered 14 inches below the bottom of the test pits for an overall total depth of ranging from 4 ½ feet to 6 feet. Based on the field test data, Provost and Prichard estimated the effluent application rate from about 0.18 to 0.98 gal/ft²/day and the County assigned an application rate of 0.45 gal/ft²/day. With a total of 8 square feet of absorption area per linear foot of trench, the minimum length of total leach lines required is approximately 5,277 linear feet to accommodate the 19,000 gpd design flow. Therefore, a total leachfield area of approximately 2.3 acres is proposed (with a separate 100% replacement area).

Based on available information, including the depth to groundwater, underlying soil conditions, expected strength of the domestic wastewater, and proposed flowrate, the proposed Facility appears to meet the conditions of the Small Domestic General Order.

MONITORING REQUIREMENTS

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

- Septic Tank Monitoring
- Subsurface Disposal Monitoring
- Solids Disposal

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 nitration accumulation in the Central Valley at its 31 May 2018 Board Meeting.

On 16 October 2019, the State Water Resources 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 District will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). For the Nitrate Control Program, the WWTF falls outside of Groundwater Basin 5-022.02 (San Joaquin Valley – Modesto) and, therefore, is 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.