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## Central Valley Regional Water Quality Control Board

19 August 2019

George Cumberland  
San Francisco Recreation & Parks Department  
501 Stanyon Street  
San Francisco, CA 94117

**CERTIFIED MAIL**  
**7018 3090 0001 1194 6534**

**NOTICE OF APPLICABILITY (NOA); STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5265; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; SAN FRANCISCO RECREATION AND PARKS DEPARTMENT; CAMP MATHER ONSITE WASTEWATER TREATMENT SYSTEM; TUOLUMNE COUNTY**

On 25 June 2010, the San Francisco Recreation and Parks Department (Discharger) submitted a Report of Waste Discharge (ROWD) for the Camp Mather Onsite Wastewater Treatment System (OWTS or Facility). As discussed in greater detail in the attached memorandum, multiple reports, including a Nitrogen Limit Evaluation Technical Report and Leach Field Capacity Evaluation Technical Report, were provided subsequent to the 2010 ROWD. Based on the information provided, the onsite wastewater treatment system (OWTS) 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. Effective immediately, you are hereby assigned General Order **2014-0153-DWQ-R5265** 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-R5265**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

### **DISCHARGE DESCRIPTION**

The Facility is located at 35250 Mather Road, Groveland in Tuolumne County, approximately 12 miles east of Groveland, and 10 miles northeast of Highway 120. The Facility consists of a small septic tank and a leach field which is utilized during the winter (Winter OWTS), and a larger septic system connected to five leach fields utilized during the summer (Summer OWTS). For majority of the year, there is only one staff member at the camp. During such times, typical wastewater flow is about 350 gpd. Throughout the summer months the OWTS treats domestic wastewater from approximately 500 students and 50 staff members. In 2018, the reported maximum monthly average flowrate was approximately 18,000 gpd. In the past, when festivals were held at Camp Mather, peak daily flows reached 40,000 gpd. However, according to the Discharger, festivals are no longer held at Camp Mather.

### **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-R5265.

In accordance with Section B.1 of the General Order, the discharge to the Summer OWTS **shall not exceed 20,000 gpd as a monthly average**. Per the requirements of the General Order, discharges with flow rates less than 20,000 gpd are not required to meet a nitrogen effluent limit.

The General Order states in Section B.1.I that the Discharger shall comply with the setbacks as described in Table 3. This table summarizes different setback requirements for wastewater 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**

<b>Equipment or Activity</b>	<b>Domestic Well</b>	<b>Flowing Stream<sup>1</sup></b>	<b>Property Line</b>	<b>Lake or Reservoir<sup>2</sup></b>
Septic Tank, Treatment System, and Collection System <sup>3</sup>	150 ft. <sup>4</sup>	50 ft. <sup>5</sup>	5 ft. <sup>5</sup>	200 ft. <sup>6</sup>
Leach Field <sup>7</sup>	100 ft. <sup>5,8</sup>	100 ft. <sup>5</sup>	5 ft. <sup>5</sup>	200 ft. <sup>6</sup>

The Discharger shall comply with the septic system requirements in Section B.2 of the General Order and the subsurface disposal system requirements in Section B.6. 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.

Disposal systems that are classified as Class V wells must be registered with USEPA either by completing the [USEPA Underground Injection Well Registration Form](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](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 (**18 November 2019**):

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

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<sup>1</sup> A flowing stream shall be measured from the ordinary high-water mark established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation type, presence of litter or debris, or other appropriate means.

<sup>2</sup> Lake or reservoir boundary measured from the high-water line.

<sup>3</sup> Septic Tank, Treatment System, or Collection System addresses equipment located below ground or that impedes leak detection by routine visual inspection.

<sup>4</sup> Setback established by Onsite Wastewater Treatment System Policy, section 7.5.6.

<sup>5</sup> Setback established by California Plumbing Code, Table K-1.

<sup>6</sup> Setback established by the Onsite Wastewater Treatment System Policy 7.5.5.

<sup>7</sup> Leach Field includes all subsurface dispersal systems.

<sup>8</sup> California Well Standards, part II, section 8.

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-R5265**, with all attachments, and MRP No. **2014-0153-DWQ-R5265** 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 Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate.

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](mailto: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:** 737529,  
**Facility Name:** Camp Mather Onsite Wastewater Treatment System,  
**Order:** 2014-0153-DWQ-R5265

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

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available on the State Water Board's website  
([http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2014/wqo2014\\_0153\\_dwq.pdf](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 Alex Mushegan by phone at (559) 488-4397, by email at [Alexander.Mushegan@waterboards.ca.gov](mailto:Alexander.Mushegan@waterboards.ca.gov).

Ordered by:

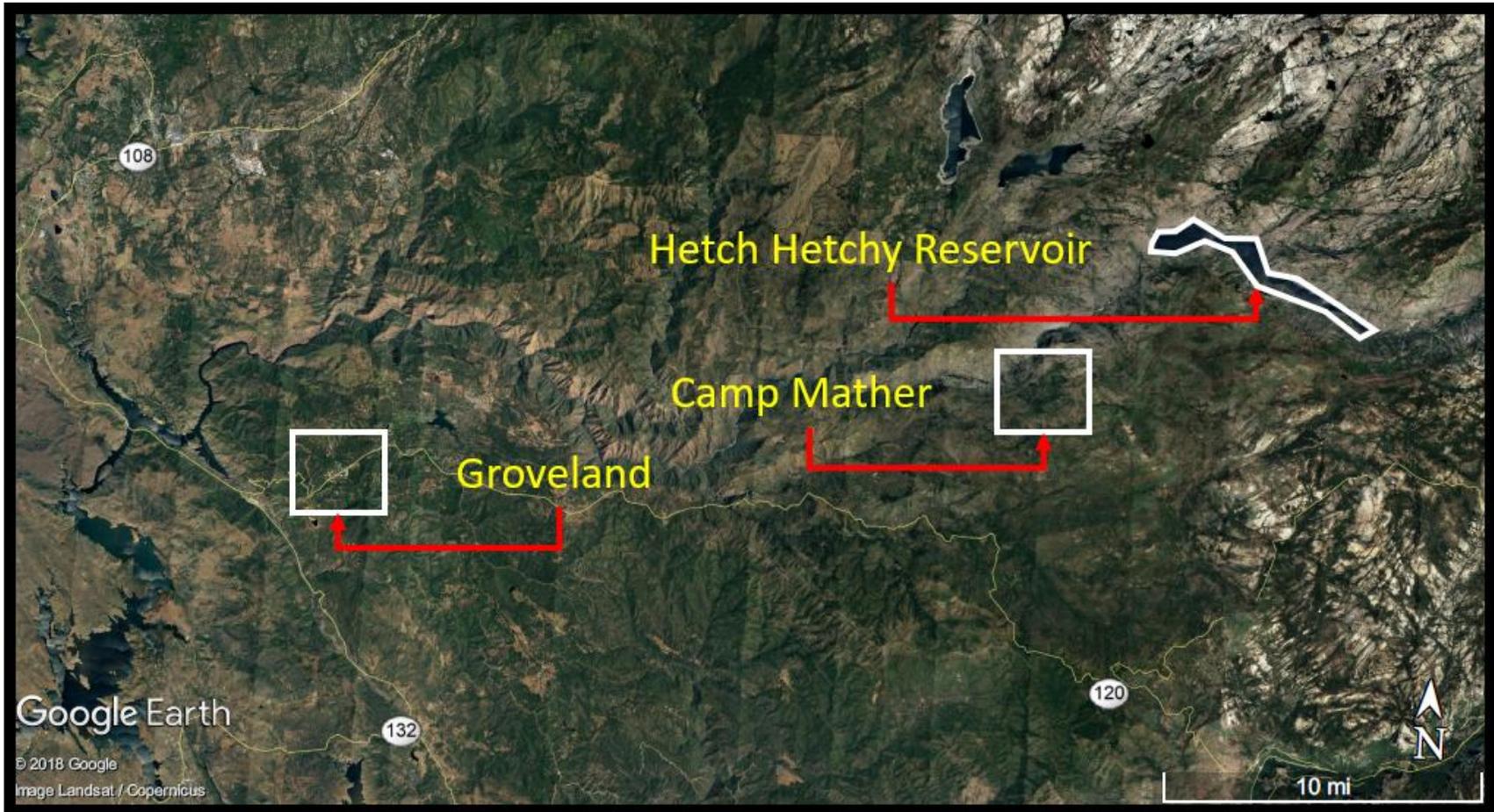
*Original Signed by Clay L. Rodgers for*  
PATRICK PALUPA, Executive Officer

*19 August 2019*

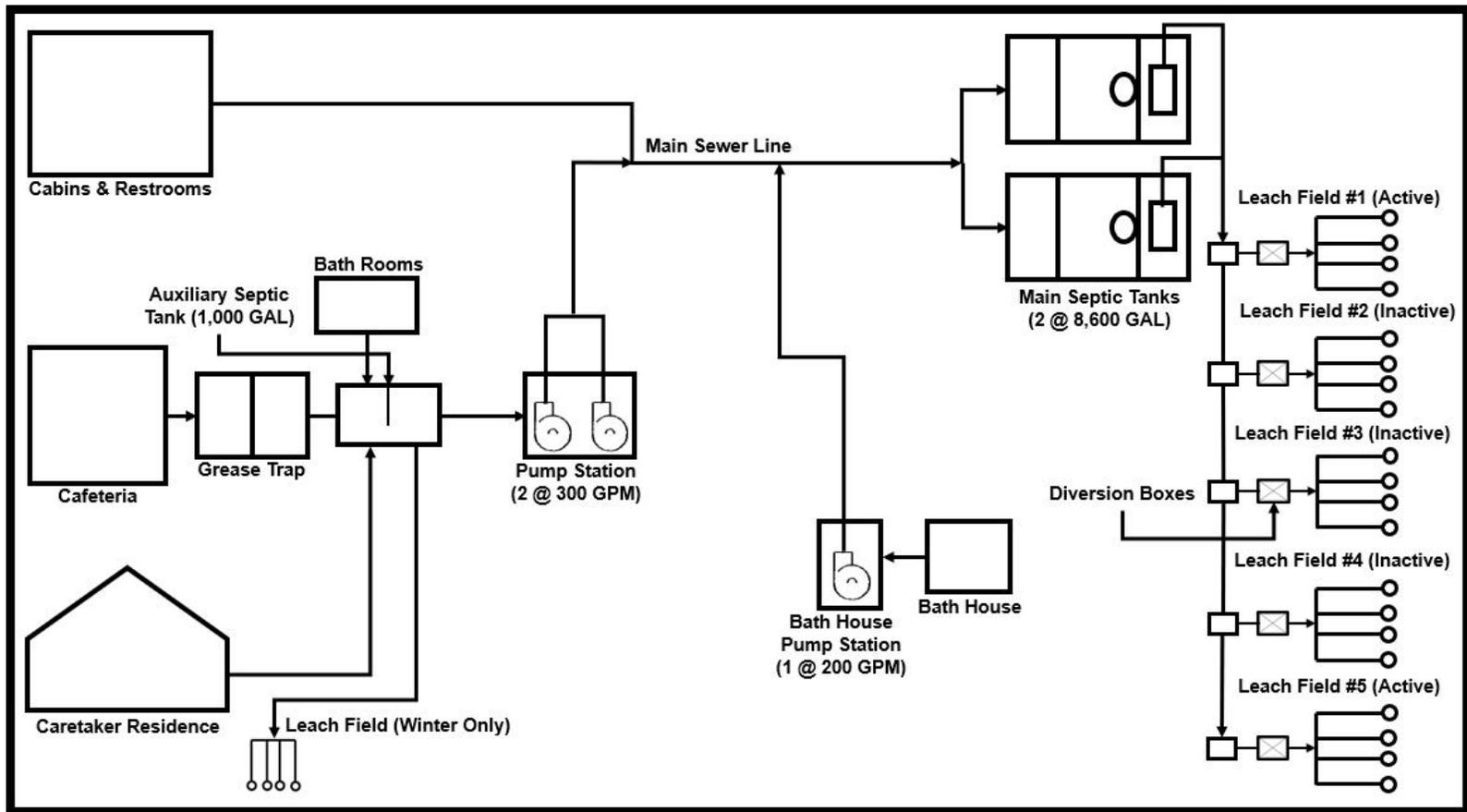
(Date)

- Attachments:
- Attachment A - Site Map
  - Attachment B - Flow Schematic
  - Monitoring and Reporting Program 2014-0153-DWQ-R5265
  - Review Memorandum of Camp Mather OWTS
  - State Water Resources Control Board Order WQ 2014 0153 DWQ (Discharger only)

- cc:
- John Ascariz, Senior Stationary Engineer, San Francisco Recreation and Park Department (via email)
  - Eric Zeigler, Senior Environmental Scientist, Stantec (via email)
  - Tuolumne County Public Health Department, 20111 Cedar Rd, Sonora, CA 95370



**ATTACHMENT A – SITE MAP**  
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5265  
FOR  
SAN FRANCISCO RECREATION AND PARKS DEPARTMENT  
CAMP MATHER  
ONSITE WASTEWATER TREATMENT SYSTEM



**ATTACHMENT B – FLOW SCHEMATIC**  
 NOTICE OF APPLICABILITY 2014-0153-DWQ-R5265  
 FOR  
 SAN FRANCISCO RECREATION AND PARKS DEPARTMENT  
 CAMP MATHER  
 ONSITE WASTEWATER TREATMENT SYSTEM

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

**MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5265  
FOR**

SAN FRANCISCO RECREATION AND PARKS DEPARTMENT  
CAMP MATHER ONSITE WASTEWATER TREATMENT SYSTEM  
TUOLUMNE COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring an onsite wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. San Francisco Recreation and Parks Department (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)(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 Camp Mather Onsite Wastewater Treatment System (OWTS or Facility) that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R265. 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.

### SEPTIC TANK MONITORING

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

**Table 1 - Septic Tank Monitoring Requirements**

<b>Parameter</b>	<b>Units</b>	<b>Measurement Type</b>	<b>Inspection/Reporting Frequency</b>
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 the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

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 (and any sand or media filter if present). Monitoring of all leach fields at Camp Mather shall include, at a minimum, the following:

**Table 2 - Subsurface Disposal Area Monitoring**

<b>Constituent</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Pump Controllers, Automatic Valves, etc. <sup>1</sup>	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
Saturated Soil Conditions <sup>2</sup>	Quarterly	Quarterly
Plant Growth <sup>3</sup>	Quarterly	Quarterly
Vectors or Animal Burrowing <sup>4</sup>	Quarterly	Quarterly

**EFFLUENT MONITORING**

Effluent samples shall be taken from a location that provides representative samples of the wastewater being discharged to the leach field system when the camp is open to the public (i.e., summer months). Monitoring shall include, at minimum, the following:

**Table 3 - Effluent Monitoring**

<b>Constituent</b>	<b>Units</b>	<b>Sample Type</b>	<b>Sample Frequency</b>	<b>Reporting Frequency</b>
Flowrate <sup>5</sup>	gpd	Meter	Continuous	Quarterly
Biological Oxygen Demand	mg/L	Grab	Monthly	Quarterly
Total Suspended Solids	mg/L	Grab	Monthly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Annually	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 necessary.

4 Evidence of animals burrowing shall be immediately investigated, and burrowing animal populations controlled as necessary.

5 Flowrate may be metered or estimated based on potable water supply readings or other approved method. Basis for estimate should be provided in quarterly monitoring reports.

### **SOLIDS DISPOSAL MONITORING**

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

### **REPORTING**

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. 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 50 MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto: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:** 737529,  
**Facility Name:** Camp Mather Onsite Wastewater Treatment System,  
**Order:** 2014-0153-DWQ-R5265.

#### **A. Quarterly Report**

Quarterly reports shall be submitted to the Central Valley 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 1<sup>st</sup>). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required monitoring.
2. A comparison of monitoring data to the discharge specifications, flow limit, 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 Central Valley Water Board by **March 1st following the monitoring year** (the annual report can be included with the 4th quarter report). The Annual Report shall include the following:

1. The start and end dates of when the camp was open to the public.
2. Tabular and graphical summaries of all monitoring data collected during the year.
3. An evaluation of the performance of the wastewater treatment system, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
4. If septic tanks are pumped during the calendar year, provide a summary of which septic tanks were pumped by whom and when.
5. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.
8. An update on the status of repairing the inoperable leach fields (Leach Fields #2, 3, and 5).
9. An update on the status of installing an effluent flow meter to monitor the flowrate to the leach field system.

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 begin implementing the above monitoring program on **1 October 2019.**

Ordered by:

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PATRICK PALUPA, Executive Officer

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(Date)

BOD <sub>5</sub>	Five-day biochemical oxygen demand
CaCO <sub>3</sub>	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Every day except weekends or holidays.
Twice Weekly	Twice per week on non-consecutive days.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
NA	Denotes not applicable

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## 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

Ernesto P. Garcia  
Scientific Aide

**Date:** 19 August 2019

### **APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; SAN FRANCISCO RECREATION AND PARKS DEPARTMENT; CAMP MATHER ONSITE WASTEWATER TREATMENT SYSTEM; TUOLUMNE COUNTY**

On 25 June 2010, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (ROWD), prepared by Kennedy/Jenks Consultants and signed and stamped by Patrick A. Johnston (RCE 59028), from the San Francisco Recreation and Parks Department (Discharger) for the Camp Mather Onsite Wastewater Treatment System (OWTS or Facility). On 16 February 2018, the Central Valley Water Board staff conducted a prerequisite inspection to get familiar with the Facility to help evaluate the Facility's eligibility for enrollment under State Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). On 9 March 2018, the Central Valley Water Board issued the Discharger a Facilities Inspection Report for the 16 February 2018 inspection.

As part of the Facilities Inspection Report, staff requested the following be submitted by 9 April 2018: 1) a nitrogen effluent limit evaluation, in accordance with Attachment 1 of the General Order and 2) a report describing the maximum flow rate the two only operational leach fields can receive without effluent surfacing and a timeline for repairing the three nonoperational leach fields. A Nitrogen Limit Evaluation Technical Report, prepared by Stantec, was originally submitted on 2 July 2018. A memorandum prepared by Stantec, reviewing the Nitrogen Limit Evaluation Technical Report (stamped and signed by Richard E. Stowell [RCE 38812]), was submitted on 25 October 2018. On 13 January 2019, the Discharger submitted a Leach Field

Capacity Evaluation Technical Report for the Facility, prepared by Stantec. The report was resubmitted on 9 May 2019, signed and stamped by Richard E. Stowell (RCE 38812).

The Facility is located at 35250 Mather Road, Groveland in Tuolumne County (Section 2, Township 1 South, Range 19 East MDB&M), approximately 12 miles east of Groveland and 10 miles northeast of Highway 120. This memorandum provides a summary of Central Valley Water Board's review of the ROWD, the supplemental information provided, and the applicability of this discharge to be covered under the General Order.

### **BACKGROUND INFORMATION**

The Facility is located on City and County of San Francisco property, as a charter city. Tuolumne County and the City and County of San Francisco have mutually agreed the Discharger would apply for a permit to receive coverage by the State of California, avoiding potential conflicts between the City and County of San Francisco and Tuolumne County zoning and planning codes.

Camp Mather consists of 97 cabins, tent camps, a dining hall and a recreational area that are primarily utilized seasonally by about 500 campers and 50 staff members from June through August. Music festivals were occasionally held at the camp during Memorial and Labor Day weekends, resulting in a larger number of visitors to the camp. However, according to the Discharger, these festivals no longer occur. During the winter seasons, the camp is only occupied by the caretaker and sometimes maintenance and construction personnel during the spring and fall.

### **POTENTIAL THREAT TO WATER QUALITY**

The Facility consists of two separate onsite wastewater treatment systems (OWTS), a small septic system with a leach field that is utilized year round and a larger septic tank attached to five leach fields operated during the summer months. The original OWTS for Camp Mather was designed in 1927, approved by M.M. O'Shaunessy, a City Engineer who planned the Hetch Hetchy Water Supply and created Camp Mather. The plans indicate the OWTS was originally designed to accommodate approximately 500 people, assuming wastewater flow of 30 gallons per capita per day or 15,000 gallons per day.

Currently, the Camp Mather OWTS has two operational leach fields (Leach Field #1 and Leach Field #2). The 2019 Leach Field Capacity Evaluation Technical Report recommends that a maximum month hydraulic limit of 20,000 gallons per day (gpd) be established for the Facility until the Discharger demonstrates the system can support a higher flow. According to the 2010 ROWD, the Facility in the past experienced flows up to at least 40,000 gpd as the result of Camp Mather hosting festivals. In 2009, just following a festival held at Camp Mather, Tuolumne County Environmental Health Division staff observed evidence of sewage overflows at the Facility. As previously

mentioned, festivals are reportedly no longer held at Camp Mather. According to the technical report, the Discharger monitored Facility wastewater flows in 2018, and the maximum monthly average flow for 2018 was 18,369 gpd.

The septic tanks are pumped out annually to restore capacity for the following camping season. Originally, four serpentine leach fields were constructed in series for the OWTS utilized during the summer. A new leach field (Leach Field #5) was added to the OWTS in 1988. As previously mentioned, Leach Fields #1 and #5 are currently operational. Leach Fields #2, 3, and 4 need to be renovated or decommissioned and disconnected.

The wastewater generated at the camp is from public toilets, washrooms, a kitchen and a cafeteria. Limited water quality data is available for the Facility since the Discharger currently does not have a monitoring and reporting program. The ROWD characterizes the Facility's influent domestic wastewater as follows:

- pH around 7;
- Electrical conductivity around 200  $\mu\text{mhos/cm}$ ;
- Biological oxygen demand (BOD);
- Total suspended solids around 250 mg/L;
- Fats, oils and grease about 50 mg/L; and
- Low chlorides and sulfates.

In November 2008, Condor Earth Technologies, Inc. was contracted to perform a soil test pit characterization near the five leach fields. The report determined that the soils exposed in the test pits consisted of sandy loam overlying granite bedrock. The ROWD includes a map of the leach field areas and shows granite boulders and bedrock outcroppings. The leach fields are located amongst and between these rock outcroppings. For the six test pits, the excavation depth ranged from 48 inches to greater than 96 inches in depth. Groundwater was not detected during the test pit soil characterization.

### **NITROGEN LIMIT EVALUATION**

To determine if a nitrogen effluent limit is necessary, Attachment 1 of the General Order includes site-specific considerations that should be considered when evaluating a discharge and the need for nitrogen control. These site-specific considerations include groundwater depth, percolation rate, wastewater strength, and if nitrogen is a constituent of concern for the area.

The Discharger hired Stantec to evaluate the nitrogen in the Facility's effluent. Stantec prepared the July 2018 Nitrogen Limit Evaluation Technical Report, which evaluated the Facility's effluent, with regards to nitrogen, and its potential impact on underlying groundwater. The Nitrogen Limit Evaluation Technical Report concluded that the

General Order's nitrogen effluent limitations should not be applicable to the Facility's discharge.

For the July 2018 Nitrogen Limit Evaluation Technical Report, the most recent flow estimates for the Facility were reportedly from 2008 and 2009. In 2008 the estimated peak month flow was 21,400 gpd. In 2009 the estimated flow was 26,700 gpd. However, as previously mentioned, the January 2019 Nitrogen Limit Evaluation Technical Report mentions that the maximum monthly average flow for 2018 was 18,369 gpd. The Nitrogen Limit Evaluation Technical Report emphasizes that the threat from the Facility's discharge is reduced in that the majority of the discharge occurs only seasonally (May through September).

The approximate percolation rate at the site is 20 to 30 minutes per inch, which according to Table 5 of the General Order (Minimum Depth to Groundwater and Minimum Soil Depth from the Bottom of Dispersal System), the required minimum depth to groundwater is 8 feet. The leach field trenches are estimated to be about three to four feet deep, and the depth to groundwater is assumed to be at least 10 feet below ground surface. The Nitrogen Limit Evaluation Technical Report mentions that underlying the Facility is weather and fractured granite. Fractured environments are less permeable rock with porosity resulting from fractures that allows groundwater to flow through the fractures. If the fractured rock does not possess a sufficient soil cover, a fractured environment could increase the transport of nitrogen (and other constituents of concern) to groundwater. However, the Nitrogen Limit Evaluation Technical Report contends that the Facility does not represent a fractured environment due to the estimated soil percolation rates, soil depths, and depth to shallow groundwater.

The Nitrogen Limit Evaluation Technical Report indicates that in 2010 the Facility's septic tank effluent had an estimated nitrogen concentration of approximately 60 mg/L (as N). This effluent concentration falls within the typical nitrogen wastewater concentration range (40 mg/L to 100 mg/L) listed in Table 1 (Summary of Domestic Wastewater Characteristics) of the General Order. According to the Nitrogen Limit Evaluation Technical Report, the nitrogen in the effluent is expected to be reduced to less than 10 mg/L by bacteria in the soil as well as vegetation by the surrounding forest.

The Notice of Applicability should specify a flow limitation of 20,000 gpd (as a monthly average), as recommended in the Leach Field Capacity Evaluation Technical Report. Therefore, based on available information, the Notice of Applicability for the Facility should not include a nitrogen limitation. In the future, if the Discharger repairs the

inoperable leach fields and requests an increase flow limitation, groundwater monitoring may be necessary to further evaluate the Facility's impact on underlying groundwater.<sup>1</sup>

### **SALT AND NITRATE CONTROL PROGRAMS**

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. These programs, once effective, could change how the Central Valley permits discharges of salt and nitrate.

### **MONITORING REQUIREMENTS**

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

- Septic Tank Monitoring;
- Solids Disposal; and
- Subsurface Disposal Monitoring

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<sup>1</sup> The 2010 ROWD by Kennedy/Jenks Consultants recommends that three groundwater monitoring wells, one upgradient of the septic tanks and two downgradient of the leach fields be constructed. In addition, the October 2018 memorandum from Richard Stowell with Stantec provides recommendations on where monitoring wells should be located.