



Central Valley Regional Water Quality Control Board

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NOTICE OF APPLICABILITY (NOA); GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076-01 FOR LIMITED THREAT DISCHARGES TO SURFACE WATER; DEPARTMENT OF THE AIR FORCE, PLUME CG044-013 GROUNDWATER TREATMENT SYSTEM, YUBA COUNTY

Our office received a Notice of Intent (NOI) on 18 September 2020 from the Department of the Air Force, Beale Air Force Base (Discharger), for discharge of treated groundwater to surface water. Based on the application packet and subsequent information submitted by the Discharger, staff has determined that the project meets the required conditions for approval under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order), Tier 2. This project is assigned Limited Threat General Order R5-2016-0076-068 and National Pollutant Discharge Elimination System (NPDES) Permit CAG995002. Please reference your Limited Threat General Order number, **R5-2016-0076-068**, in your correspondence and submitted documents.

The project activities shall be operated in accordance with the requirements contained in the Limited Threat General Order and as specified in this NOA. You are urged to familiarize yourself with the entire contents of the enclosed [Limited Threat General Order](#) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf).

CALIFORNIA TOXICS RULE / STATE IMPLEMENTATION POLICY MONITORING

The Limited Threat General Order incorporates the requirements of the California Toxics Rule (CTR) and the State Water Resources Control Board's (State Water Board), *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, 2005, also known as the State Implementation Policy (SIP). Screening levels for CTR constituents and other constituents of concern are found in Attachment I of the Limited Threat General Order. Review of your water quality data in comparison to the screening values, showed reasonable potential for the discharge to cause or contribute to an exceedance of trichloroethylene (TCE) water quality objectives in Hutchinson Creek, which is a water of the United States. However, the treatment system addresses the water quality concern by reducing TCE concentrations below water quality objectives; therefore, the Project qualifies for the Limited Threat General Order.

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

PROJECT DESCRIPTION

The site is an inactive, unlined landfill used from the late 1930's to the mid 1950's at Beale Air Force Base in Yuba County. The Plume CG044-013 Groundwater Treatment System (GWTS) was installed in 1994 to treat TCE in groundwater and maintain capture of the groundwater plume within the Beale Air Force Base boundary. The GWTS consists of 20 groundwater wells (12 active) capable of pumping at a cumulative rate of 370 gallons per minute (0.53 million gallons per day) and utilizes two air strippers to treat TCE. The Discharger is seeking coverage under the Limited Threat General Order because the new Waste Discharge Requirements for the Beale Air Force Base Wastewater Treatment Plant (WWTP) limits the annual volume of GWTS effluent that can be discharged to the WWTP's Pond 4, which is where the GWTS would historically discharge year-round. The Pond 4 volume limitation would require the Discharger to shut off the GWTS once Pond 4 has reached its annual limitation, possibly allowing migration of the plume beyond capture of existing groundwater extraction wells. Coverage under the Limited Threat General Order will allow continued year-round operation of the GWTS by redirecting flow to Hutchinson Creek, thus enhancing plume capture. Effluent from the GWTS will be discharged to a riprap-lined ditch, via a concrete diffuser, before flowing to Hutchinson Creek.

Plume CG044-013 is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site for the treatment of the groundwater. This NOA only regulates the discharge of treated groundwater to Hutchinson Creek.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the Limited Threat General Order. Based on the information provided in the NOI, effluent limitations are only required for the parameter identified in items 1-5, below:

1. **pH (Section V.A.1.b.i).** The pH of all limited threat discharges within the Sacramento and San Joaquin River Basins (except Goose Lake in Modoc County) shall at all times be within the range of 6.5 and 8.5.
2. **Salinity (Section V.A.1.d).** The discharge shall not exceed 700 micromhos per centimeter ($\mu\text{mhos/cm}$) for electrical conductivity @ 25 °C as a monthly average. This salinity limit implements the Basin Plan's Salt Control Program Conservative Permitting Approach to protect the Agricultural Irrigation and Stock Watering (AGR) beneficial use.
3. **Whole Effluent Toxicity, Chronic (Section V.A.2.a).** There shall be no chronic toxicity in the discharge.
4. **Whole Effluent Toxicity, Acute (Section V.A.3.a).** Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all limited threat discharges shall be no less than:
 - i. 70%, minimum for any one bioassay; and
 - ii. 90%, median for any three consecutive bioassays.

5. Volatile Organic Compounds (VOC's) Applicable to Remediation Sites. (Section V.B.2). The following constituents and parameters in Table 1 shall not exceed the technology-based effluent limitations as listed in Table 1 below.

Table 1. Effluent Limitations for Constituents and Parameters of Concern

Parameter	Units	Maximum Daily
1,1-dichloroethene (DCE)	micrograms per liter (µg/L)	0.5
1,1,2-Trichloroethane	µg/L	0.5
1,1,2,2-Tetrachloroethane	µg/L	0.5
cis-1,2-DCE	µg/L	0.5
trans-1,2-DCE	µg/L	0.5
Tetrachloroethylene (PCE)	µg/L	0.5
Trichloroethylene (TCE)	µg/L	0.5
Vinyl Chloride (Chloroethene)	µg/L	0.5

Hutchinson Creek is not listed under the Clean Water Act 303(d) List of impaired water bodies. Therefore, no additional 303(d)-based effluent limitations or monitoring requirements will be added to this NOA.

RECEIVING WATER LIMITATIONS

The Limited Threat General Order includes receiving surface water limitations in Section VIII.A. Based on the information provided in the NOI, only the following receiving surface water limitations are applicable to this discharge:

- Bacteria (VIII.A.2);
- Biostimulatory substances (VIII.A.3);
- Chemical constituents (VIII.A.4);
- Color (VIII.A.5);
- Dissolved oxygen (VIII.A.6.a);
- Floating material (VIII.A.7);
- Oil and grease (VIII.A.8);
- pH (VIII.A.9.a);
- Pesticides (VIII.A.10);
- Radioactivity (VIII.A.11);
- Suspended sediments (VIII.A.12);
- Settleable substances (VIII.A.13);
- Suspended material (VIII.A.14);
- Taste and odors (VIII.A.15);
- Temperature (VIII.A.16.a);
- Toxicity (VIII.A.17); and
- Turbidity (VIII.A.18.a).

MONITORING AND REPORTING

Monitoring and reporting requirements are contained in Attachment C of the Limited Threat General Order. The Discharger is required to comply with the following specific monitoring and reporting requirements for the effluent and receiving water in accordance with Attachment C of the Limited Threat General Order.

Monitoring Locations – The Discharger shall monitor the effluent and receiving water at the specified location as follows:

Table 2. Monitoring Station Locations

Station ID	Monitoring Location Description
EFF-001	A representative sample of the effluent can be taken at the effluent sample port located on the air stripper equipment pad, prior to discharging to Hutchinson Creek.
RSW-001	Located 50 feet upstream from where flow from EFF-001 discharges to Hutchinson Creek.
RSW-002	Located 100 feet downstream from where flow from EFF-001 discharges to Hutchinson Creek.

Effluent Monitoring – When discharging to surface water, the Discharger shall monitor the effluent at EFF-001 in accordance with Table C-3 of the Limited Threat General Order and this NOA. The applicable monitoring requirements are as follows in Table 3 and subsequent Table 3 Notes:

Table 3. Effluent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	million gallons per day (MGD)	Meter	Continuous
pH	standard units	Grab	1/Month
Dissolved Oxygen (DO)	milligram per liter (mg/L)	Grab	1/Month
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1/Month
Temperature	degrees Fahrenheit (°F)	Grab	1/Month
Turbidity	nephelometric turbidity units (NTU)	Grab	1/Month
1,1-Dichloroethene (DCE)	µg/L	Grab	1/Month
1,1,2-Trichloroethane (TCA)	µg/L	Grab	1/Month
1,1,2,2-Tetrachloroethane	µg/L	Grab	1/Month
cis-1,2-DCE	µg/L	Grab	1/Month
trans-1,2-DCE	µg/L	Grab	1/Month
Tetrachloroethylene (PCE)	µg/L	Grab	1/Month
Trichloroethylene (TCE)	µg/L	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Vinyl Chloride (Chloroethene)	µg/L	Grab	1/Month
Acute Toxicity	%	Grab	Once per NOA term, Note 3
Chronic Toxicity	TUc	Grab	Once per NOA term, Note 3

Table 3 Notes

- Hand-held field meter.** A hand-held field meter may be used for **electrical conductivity, pH, turbidity, temperature, and dissolved oxygen**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the GWTS.
- All parameters, except flow.** Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations (C.F.R.) part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- Acute and chronic toxicity.** Chronic and acute toxicity testing shall be conducted within 3 months of initiation of discharge. For acute toxicity testing, the test species shall be fathead minnows (*Pimephales promelas*). See the Monitoring and Reporting Program (Attachment C) for toxicity monitoring requirements.

Section II.B.2 of the Limitations and Discharge Requirements section of the Limited Threat General Order requires that dischargers submit new analytical results every 5 years for pollutants specified in Table I-1 of Attachment I. The Project is considered a Tier 2 discharge. Therefore, the Discharger shall submit monitoring results by **1 February 2023** for the following constituents shown in Table 4 and subsequent Table 4 Notes, below:

Table 4. Effluent Characterization Monitoring

Parameter	Units	Sample Type
pH	standard units	Grab
Hardness, Total (as CaCO ₃)	mg/L	Grab
Temperature	°F	Grab
CTR Priority Pollutants	See Attachment I, Table I-3 (MUN) of the Limited Threat General Order	See Attachment I, Table I-3 (MUN) of the Limited Threat General Order
Volatile Organic Constituents	See Attachment I, Table I-5 of the Limited Threat General Order	See Attachment I, Table I-5 of the Limited Threat General Order

Table 4 Notes

- For all parameters.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month,

as required in Table 3, except for pH, hardness, and temperature, which shall be conducted concurrently with the 5-year effluent sampling.

2. **For all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
3. **pH and temperature.** A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

Receiving Water Monitoring - When discharging to surface water, the Discharger shall monitor the receiving water at RSW-001 and RSW-002, in accordance with Table C-5 of the Limited Threat General Order and this NOA. If there is no upstream receiving water flow, monitoring at RSW-001 is not required and the self-monitoring report shall state that monitoring was not conducted due to no upstream receiving water flow. The applicable monitoring requirements are as follows in Table 5 and subsequent Table 5 Notes:

Table 5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Month
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1/Month
Temperature	°F	Grab	1/Month
Turbidity	NTU	Grab	1/Month

Table 5 Notes

1. **All parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
2. **Hand-held field meter.** A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained by the Discharger.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

- Floating or suspended matter
- Discoloration
- Bottom deposits
- Aquatic life
- Visible films, sheens, or coatings

- Fungi, slimes, or objectionable growths
- Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the Monitoring Report.

Monitoring Report Submittals - Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Monitoring Reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Second Quarter 2021**. This report shall be submitted on **1 August 2021**. All Monitoring Reports shall specify the dates during the monitoring period the discharge did or did not occur. If monitoring samples were not obtained within 24 hours of initiation of the discharge, the Discharger must document the reasons in the corresponding Monitoring Report. If discharge has not begun there is no need to monitor. However, a certified Monitoring Report must be submitted stating that there has been no discharge. Table 6, below, summarizes the Monitoring Report due dates required under the Limited Threat General Order. Quarterly Monitoring Reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge during the reporting quarter.

Table 6. Monitoring Periods and Reporting Schedule

Monitoring Period for All Sampling Frequencies	Quarterly Report Due Date
First Quarter (1 January through 31 March)	1 May
Second Quarter (1 April through 30 June)	1 August
Third Quarter (1 July through 30 September)	1 November
Fourth Quarter (1 October through 31 December)	1 February of the following year

GENERAL INFORMATION AND REQUIREMENTS

The Discharger must notify Central Valley Water Board staff within 24 hours of having knowledge of 1) the start of each new discharge, 2) noncompliance, and 3) when the discharge ceases. The Central Valley Water Board shall be notified immediately if any effluent limit violation is observed during implementation of the project.

Discharge of material other than what is described in the application is prohibited. The required annual fee (as specified in the annual invoice you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially terminated. You must notify this office in writing when the discharge regulated by the Limited Threat General Order is no longer necessary by submitting the Request for Termination of Coverage (Attachment E). If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Resources Control Board.

ENFORCEMENT

Failure to comply with the Limited Threat General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late Monitoring Reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. When discharges do not occur during a quarterly monitoring period, the Discharger

must still submit a quarterly certified Monitoring Report indicating that no discharge occurred to avoid being subject to enforcement actions.

COMMUNICATION

We have transitioned to a paperless office; therefore, please convert all documents to a searchable Portable Document Format (pdf). All documents, including Monitoring Reports, written notifications, and documents submitted to comply with this NOA and the Limited Threat General Order, should be submitted to the NPDES Compliance and Enforcement Unit [by email to centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov), Attention to Jonathan Rohrbough. Mr. Rohrbough may also be reached by phone at (916) 464-4634 and [by email at jon.rohrbough@waterboards.ca.gov](mailto:jon.rohrbough@waterboards.ca.gov).

Please include the following information in the body of the email:

- Attention: NPDES Compliance Unit
- Discharger: Department of the Air Force
- Facility: Plume CG044-013 Groundwater Treatment System
- County: Yuba County
- CIWQS place ID: 871387

Documents that are 50 megabytes or larger must be transferred to a DVD, or flash drive and mailed to our office, attention "ECM Mailroom-NPDES".

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water 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 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 Board by 5:00 p.m. on the next business day. Links to the law and regulations applicable to filing petitions may be found on the [Water Quality Petitions Page](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

Patrick Pulupa
Executive Officer

Enclosures (3):
Project Location Map
General Order R5-2016-0076-01 (Discharger only)
Monitoring Report Transmittal Form (Discharger only)

cc: Peter Kozelka, U.S. EPA, Region IX, San Francisco (email only)
Elizabeth Sablad, U.S. EPA, Region IX, San Francisco (email only)
Division of Water Quality, State Water Board, Sacramento (email only)
Sarah Torres, PG Environmental, Chantilly, Virginia (via email)

PROJECT LOCATION MAP

