

Central Valley Regional Water Quality Control Board

26 September 2019

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NOTICE OF APPLICABILITY (NOA); GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076-01 FOR LIMITED THREAT DISCHARGES TO SURFACE WATER; UNITED STATES DEPARTMENT OF THE AIR FORCE, AIR FORCE CIVIL ENGINEER CENTER (AFCEC), FORMER MCCLELLAN AIR FORCE BASE (AFB), GROUNDWATER EXTRACTION AND TREATMENT SYSTEM, SACRAMENTO COUNTY

The United States Department of the Air Force, Air Force Civil Engineer Center (hereinafter Discharger) submitted information and data necessary for the Former McClellan AFB, Groundwater Extraction and Treatment System (hereinafter Facility) National Pollutant Discharge Elimination System (NPDES) permit renewal. Staff has determined that the discharge meets the required conditions for approval under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order), as a Tier 2 discharge. The Discharger is hereby assigned Limited Threat General Order R5-2016-0076-059 and NPDES Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2016-0076-059**, in your correspondence and submitted documents.

Discharges to surface water from the Facility are currently regulated by an individual NPDES permit, Order R5-2014-0055 (NPDES No. CA0081850) issued by the Central Valley Water Quality Control Board (Central Valley Water Board) on 28 March 2014. This NOA providing coverage under the Limited Threat General Order shall become effective on **1 November 2019**, at which time the terms and conditions in Order R5-2014-0055 will cease to be effective except for enforcement purposes.

The NPDES Program and the California Toxics Rule are included as Applicable or Relevant and Appropriate Requirements (ARARs) in the final Basewide Volatile Organic Compound (VOC) Groundwater Record of Decision (ROD), signed in August 2007, and the Non-VOC Amendment to the Basewide VOC Groundwater ROD, signed in September 2009 for the Facility. As such, the Discharger will continue to comply with the substantive requirements of this NOA.

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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 Limited Threat General Order. The Limited Threat General Order is enclosed and may be viewed on the [Central Valley Water Board's Adopted Orders Page](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf). A copy of the Limited Threat General Order can also be obtained by contacting or visiting the Central Valley Water Board's office weekdays between 8:00 AM and 5:00 PM.

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 no reasonable potential for the discharge to cause or contribute to an exceedance of water quality objectives in Magpie Creek or Beaver Pond, which are waters of the United States.

PROJECT DESCRIPTION

The Discharger is the owner and operator of the Facility. The Facility discharges treated groundwater to Magpie Creek and Beaver Pond (wetlands area adjacent to Don Julio Creek), waters of the United States, tributary to the Sacramento River via Robla (Rio Linda) Creek and Natomas East Main Drainage Canal within the Sacramento River watershed. Attachment A includes a map of the area around the Facility and flow schematic of the Facility.

The former McClellan AFB (McClellan) is approximately 8 miles northeast of downtown Sacramento in North Highlands. As part of the Base Realignment and Closure (BRAC) Program, the McClellan was officially closed on 13 July 2001. Clean-up of McClellan is currently supervised by the Department of Defense (DOD) Installation and Restoration Program (IRP). The IRP is designed to manage the overall DOD activities with respect to past waste disposal practices and site remediation. This program has identified 318 sites on McClellan. The cleanup of IRP sites, and reuse and transfer of the property, is being directed by the Discharger. Many contamination source areas have been identified and found to have soil and groundwater contamination due to buried and burned wastes, spills, unregulated disposal practices, leaking underground storage tanks, and industrial activities on McClellan. Contamination is found to extend from the surface to 150 to 200 feet in depth and includes many VOCs, semi-VOCs, and metals.

One of the first areas to be addressed at McClellan was Site S in Operable Unit (OU) D, located in the northwest portion of McClellan. The plan for controlling and remediating the contamination in OU D included removing 20,000 cubic yards of soils and sludges;

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installing a plastic membrane and soil cap to stop rainfall infiltration into the contaminated area; and operation of a groundwater extraction and treatment system.

The Discharger owns and operates the Facility to extract groundwater contaminated with VOCs and non-VOCs, remove contaminants, and discharge treated groundwater. The treatment system consists of a 64,000-gallon influent tank, a packed-tower air stripper, and an ion exchange system, consisting of one 60-cubic foot (cf) vessel containing ion exchange resin. The 60-cf ion exchange resin vessel was installed in December 2009 for treatment of hexavalent chromium. However, the ion exchange resin vessel is not currently being used because influent hexavalent chromium concentrations have not exceeded the applicable water quality objectives.

The air stripper is equipped with two blowers (one for backup and redundancy) designed to treat up to 2,000 gallons per minute (gpm), removing greater than 99% of VOCs in groundwater entering the stripper, and discharges the off-gas to the atmosphere.

The Facility has a design capacity of 2.88 million gallons per day (MGD). Treated groundwater is discharged to Magpie Creek from Discharge Point 001. Up to 0.144 MGD of the 2.88 MGD may be discharged to Beaver Pond, a wetlands area, via Discharge Point 002, which is hydraulically connected to Don Julio Creek, tributary to Magpie Creek downstream of Discharge Point 001. Effluent is discharged to Beaver Pond only when the water level in the pond is below 2 feet for 2 consecutive weeks.

The Facility is configured to allow for discharge to the municipal sewer system if there is potential to exceed limitations or if the effluent quality is uncertain. Under the Discharger's current permit (No. GRW023) with the Sacramento Regional County Sanitation District (SRCSD), the Discharger is allowed to discharge a maximum monthly volume of 3.3 million gallons to the municipal sewer system from all of their outfalls.

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 by the Discharger, effluent limitations are only required for the parameters identified in items 1-5, below:

- 1. Flow.** The flow rate shall not exceed 2.88 MGD at Discharge Point 001 and 0.144 MGD at Discharge Point 002.
- 2. pH.** 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.
- 3. Chronic Whole Effluent Toxicity.** There shall be no chronic toxicity in the discharge. See Section V of the Monitoring and Reporting Program (Attachment C) of the Limited Threat General Order and the site-specific numeric chronic

toxicity monitoring trigger under “TOXICITY REDUCTION EVALUATION REQUIREMENTS” below.

4. Acute Whole Effluent Toxicity. 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.

Table 1. Effluent Limitations for VOC’s

Parameter	Units	Maximum Daily Effluent Limitations	General Order Section Reference
Carbon Tetrachloride	µg/L	0.5	V.B.2
Dichlorobromomethane	µg/L	0.5	
1,1-Dichloroethane	µg/L	0.5	
1,2-Dichloroethane	µg/L	0.5	
1,1-Dichloroethylene	µg/L	0.5	
Tetrachloroethylene	µg/L	0.5	
Trichloroethylene	µg/L	0.5	
Vinyl Chloride	µg/L	0.5	
cis-1,2-Dichloroethylene	µg/L	0.5	

The receiving water, Magpie 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 Limited Threat General Order.

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);

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- 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 influent, effluent, and receiving water in accordance with Attachment C of the Limited Threat General Order.

Monitoring Locations – The Discharger shall monitor the influent, effluent, and receiving water at the specified location as follows in Table 2:

Table 2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	A location where a representative sample of the influent to the Facility can be collected prior to treatment
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to Magpie Creek (Latitude 38° 39' 30" N, Longitude 121° 24' 54.6" W)
002	EFF-002	A location where a representative sample of the effluent can be collected prior to discharging to Beaver Pond (Latitude 38° 39' 46" N, Longitude 121° 25' 30" W)
--	RSW-001	100 feet upstream of Discharge Point 001 in Magpie Creek
--	RSW-002	100 feet downstream of Discharge Point 001 in Magpie Creek
--	RSW-003	Within 100 feet from Discharge Point 002 in Beaver Pond

Influent Monitoring – The Discharger shall monitor the influent at INF-001 in accordance with Table C-2 of the Limited Threat General Order and this NOA. Pollutants shall be analyzed using U.S. EPA-approved analytical methods described in 40 CFR part 136, and with sufficiently sensitive reporting levels consistent with the SSM

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Rule specified in 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). The applicable monitoring requirements are as follows in Table 3:

Table 3. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Carbon Tetrachloride	MGD	Grab	1/Year
Chromium VI, Dissolved	µg/L	Grab	1/Year
cis-1,2-Dichloroethylene	µg/L	Grab	1/Year
Dichlorobromomethane	µg/L	Grab	1/Year
1,1-Dichloroethane	µg/L	Grab	1/Year
1,2-Dichloroethane	µg/L	Grab	1/Year
1,1-Dichloroethylene	µg/L	Grab	1/Year
Tetrachloroethylene	µg/L	Grab	1/Year
Trichloroethylene	µg/L	Grab	1/Year
Vinyl Chloride	µg/L	Grab	1/Year

Effluent Monitoring – The Discharger shall monitor the effluent at EFF-001 in accordance with Table C-3 of the Limited Threat General Order. Pollutants shall be analyzed using U.S. EPA-approved analytical methods described in 40 CFR part 136, and with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). The applicable monitoring requirements contained in Table C-3 are as follows in Table 4:

Table 4. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
pH	standard units	Grab	1/Quarter
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25° C	µmhos/cm	Grab	1/Quarter
Temperature	°F	Grab	1/Quarter

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Parameter	Units	Sample Type	Minimum Sampling Frequency
Turbidity	NTU	Grab	1/Quarter
Carbon Tetrachloride	µg/L	Grab	1/Month
Chromium VI, Dissolved	µg/L	Grab	1/Month
Cis-1,2- Dichloroethylene	µg/L	Grab	1/Month
Dichlorobromomethane	µg/L	Grab	1/Month
1,1-Dichloroethane	µg/L	Grab	1/Month
1,2-Dichloroethane	µg/L	Grab	1/Month
1,1-Dichloroethylene	µg/L	Grab	1/Month
Tetrachloroethylene	µg/L	Grab	1/Month
Trichloroethylene	µg/L	Grab	1/Month
Vinyl Chloride	µg/L	Grab	1/Month
Acute Toxicity	% survival	Grab	1/Year
Chronic Toxicity	--	Grab	1/Year

Table 4 notes:

- pH, Dissolved Oxygen, Electrical Conductivity, Temperature, and Turbidity.** Effluent and receiving water sampling shall be performed at approximately the same time on the same date. 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.
- Acute and Chronic Toxicity.** 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.

Receiving Water Monitoring – The Discharger shall monitor Magpie Creek at Monitoring Locations RSW-001 and RSW-002 and Beaver Pond at Monitoring Location RSW-003 in accordance with Table C-5 of the Limited Threat General Order and this NOA. Pollutants shall be analyzed using U.S. EPA-approved analytical methods described in 40 CFR part 136, and with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). The applicable monitoring requirements are as follows in Table 5:

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Table 5. Receiving Water Monitoring

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

Table 5 notes:

1. **All parameters.** Effluent and receiving water sampling shall be performed at approximately the same time, on the same date. 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.
2. **Flow.** Estimate of receiving water flow, recorded for each day of sample collection. Monitoring required at Monitoring Location RSW-001 only.

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:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

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

Effluent Characterization Monitoring – 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 a groundwater VOC remediation project and is considered a Tier 2 discharge. Therefore, the Discharger shall conduct one sampling event in 2021 for the following constituents shown in Table 6, below. The results of the sampling event

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shall be submitted with the Discharger's Quarterly Self-Monitoring Report for the quarter the sampling was conducted.

Table 6. Effluent Characterization Monitoring

Parameter	Units	Sample Type
Biochemical Oxygen Demand (BOD)	mg/L	Grab
Total Suspended Solids (TSS)	mg/L	Grab
Dissolved Oxygen (DO)	mg/L	Grab
Hardness	mg/L	Grab
pH	standard units	Grab
Temperature	°F	Grab
Electrical Conductivity @ 25 °C	µmhos/cm	Grab
Total Dissolved Solids (TDS)	mg/L	Grab
Turbidity	NTU	Grab
Iron	µg/L	Grab
Manganese	µg/L	Grab
Standard Minerals	µg/L	Grab
Volatile Organic Compounds	µg/L	Grab
CTR Priority Pollutants	µg/L	Grab

Table 6 notes:

1. **All parameters:** Pollutants shall be analyzed using U.S. EPA-approved analytical methods described in 40 CFR part 136, and with sufficiently sensitive reporting levels consistent with the SSM Rule specified in 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table 4, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.
2. **Dissolved Oxygen, Hardness, pH, Temperature, Electrical Conductivity, and Turbidity.** 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.
3. **Standard Minerals.** Standard minerals shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total

alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).

4. **Volatile Organic Compounds.** See Attachment I, Table I-5 of the Limited Threat General Order.
5. **CTR Priority Pollutants.** See Attachment I, Table I-3 of the Limited Threat General Order.

Monitoring Report Submittals – Monitoring in accordance with this NOA shall begin upon the date of this NOA. Monitoring Reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Fourth Quarter 2019**. This report shall be submitted on **1 February 2020**. All Monitoring Reports shall specify the dates during the monitoring period the discharge did or did not occur. If the 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 7, 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 7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Quarterly Report Due Dates
1/Day	1 November 2019	1 May (1 Jan – 31 Mar)
1/Week		1 Aug (1 Apr – 30 Jun)
1/Month		1 Nov (1 Jul – 30 Sep)
1/Quarter		1 Feb, of following year (1 Oct – 31 Dec)

TOXICITY REDUCTION EVALUATION REQUIREMENTS

For compliance with the Basin Plan’s narrative toxicity objective, the Limited Threat General Order requires all Dischargers of Tier 2 and Tier 3 discharges to conduct chronic whole effluent toxicity (WET) testing, as specified in the Monitoring and Reporting Program (Attachment C, section V). Furthermore, the Toxicity Reduction Evaluation Requirements provision (Section IX.C.2) requires the Discharger to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity. The Provision includes a numeric monitoring trigger and accelerated monitoring specifications. This NOA includes a site-specific numeric toxicity monitoring trigger as described below:

Site-Specific Numeric Toxicity Monitoring Trigger – The numeric toxicity monitoring trigger to initiate accelerated monitoring is >1 chronic toxicity unit (TUc) where $TUc = 100/\text{No Observed Effect Concentration (NOEC)}$ for all chronic toxicity endpoints, except the *Ceriodaphnia dubia* reproduction endpoint. For the *Ceriodaphnia dubia* reproduction endpoint, the numeric toxicity monitoring trigger to initiate accelerated monitoring is >1 TUc (where $TUc = 100/\text{NOEC}$) AND the reproduction (neonates/female) of the 100 percent effluent sample is less than or equal to 50 percent the reproduction of the control sample.

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. 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).

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

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 Site Cleanup Section, attention James D. Taylor. Mr. Taylor can be reached at (916) 464-4669 or james.taylor@waterboards.ca.gov.

We have transitioned to a paperless office, therefore, please convert all documents to a searchable Portable Document Format (pdf) and email them to centralvalleysacramento@waterboards.ca.gov. **Please include the following information in the email:**

Attention: Site Cleanup Unit

Discharger: United States Department of the Air Force

Facility: Former McClellan Air Force Base, Groundwater Extraction and Treatment System

County: Sacramento

CIWQS Place ID: 228020

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". Please include the attached Monitoring Report Transmittal Form as the first page of each Monitoring Report.

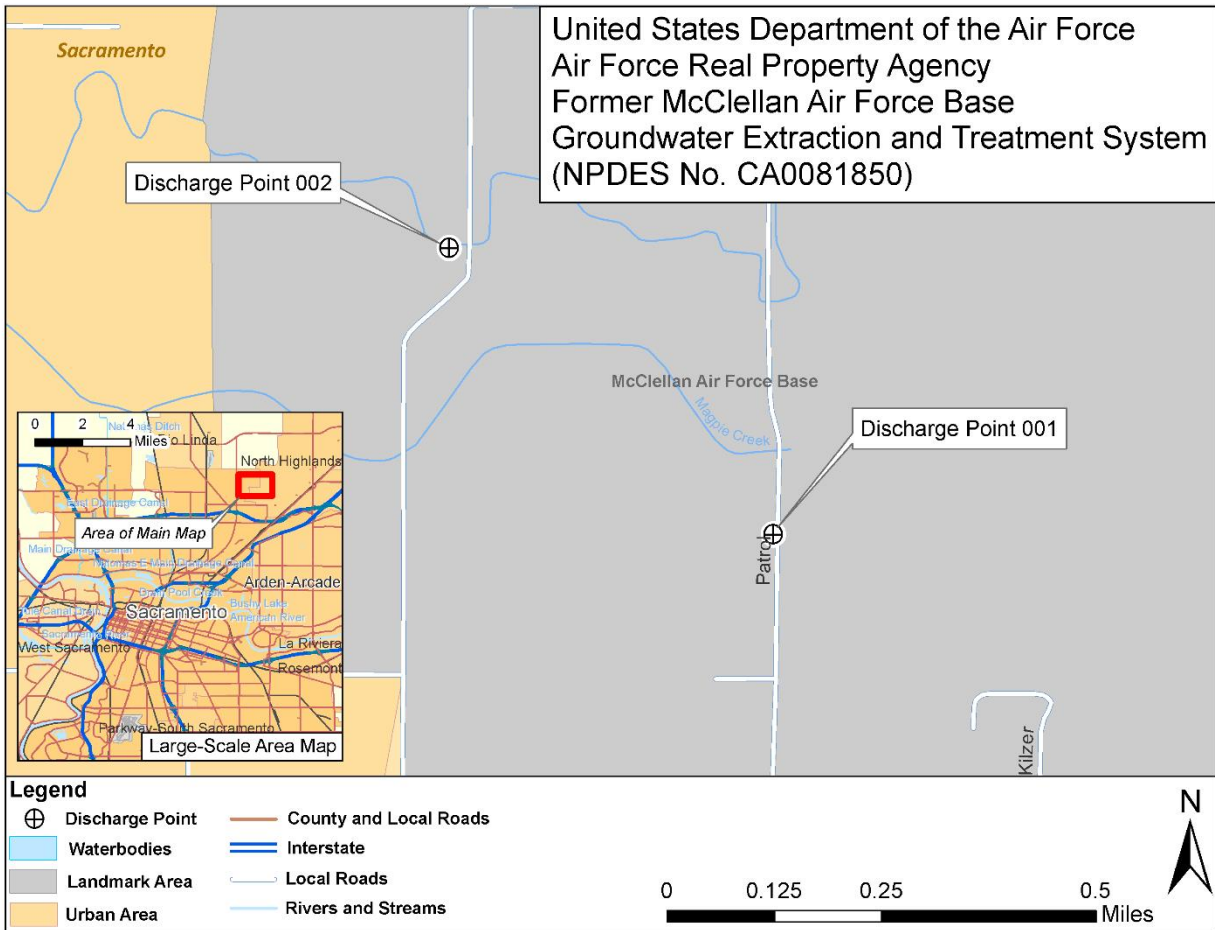
Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition 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. Copies of the law and regulations applicable to filing petitions may be found on the [Central Valley Water Board's 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.

ORIGINAL SIGNED BY

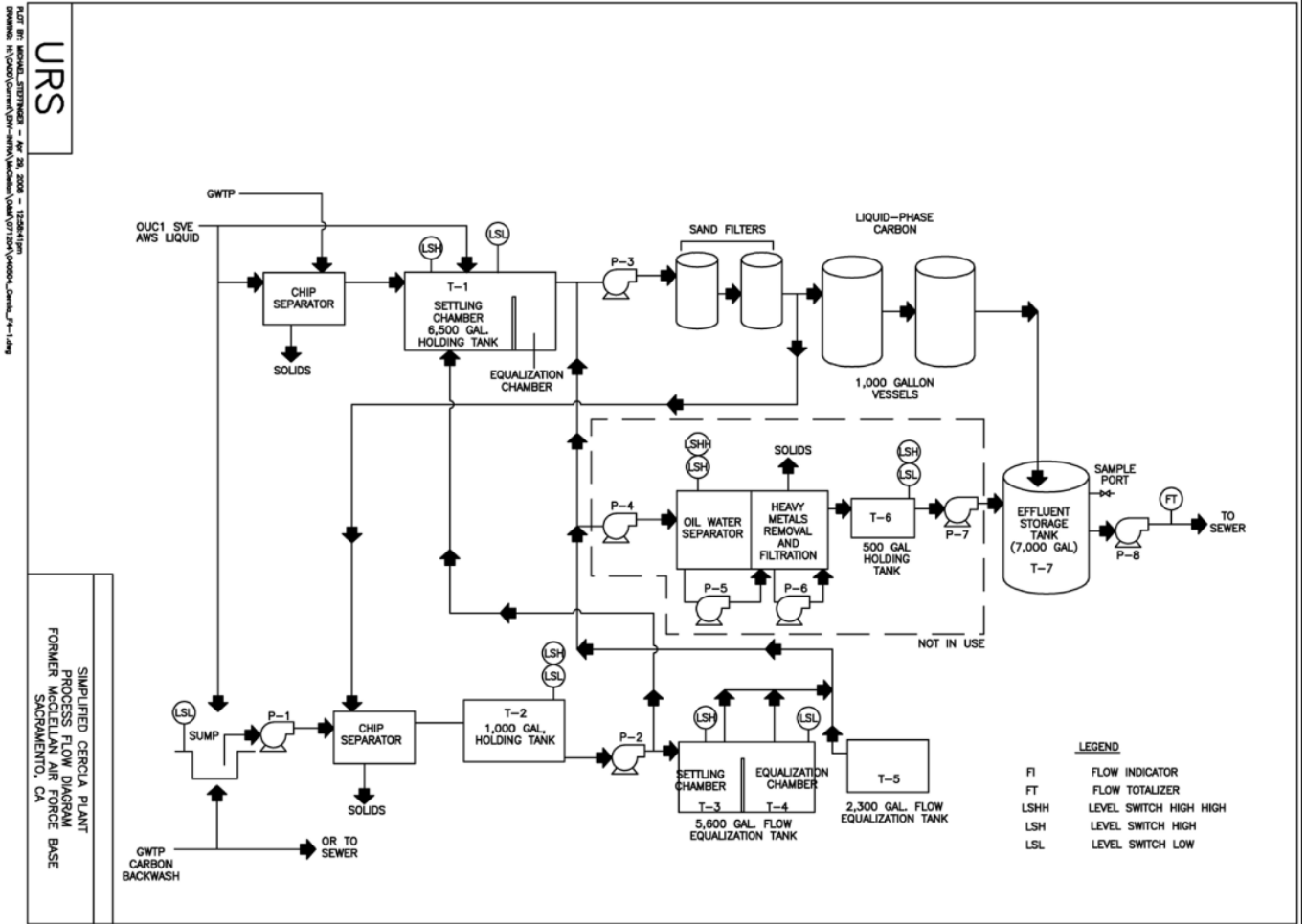
Patrick Pulupa
Executive Officer

Enclosures (4): Attachment A, Project Location Map
Attachment B, Rationale for Effluent Limitations and Monitoring
Monitoring Report Transmittal Form (Discharger only)
Order R5-2016-0076-01 (NPDES Permit CAG995002), Waste
Discharge Requirements, Limited Threat Discharges to Surface
Water (Discharger only)

cc: Elizabeth Sablad, U.S. EPA, Region IX, San Francisco (email only)
Peter Kozelka, U.S. EPA, Region IX, San Francisco (email only)
Afrooz Farsimadan, Division of Water Quality, State Water Board,
Sacramento (email only)
Paul Graff, AECOM (email only)



ATTACHMENT A – PROJECT LOCATION MAP



ATTACHMENT B – RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING

I. RATIONALE FOR EFFLUENT LIMITATIONS

A. Satisfaction of Anti-Backsliding Requirements

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 CFR section 122.44(l).

The effluent limitations in this NOA are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for chromium VI. The effluent limitations for this pollutant are less stringent than those in Order R5-2014-0055. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

1. **CWA section 402(o)(1) and 303(d)(4).** CWA section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limits “*except in compliance with Section 303(d)(4).*” CWA section 303(d)(4) has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters.
 - a. For waters where standards are not attained, CWA section 304(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on such TMDL’s or WLAs will assure the attainment of such water quality standards.
 - b. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

Magpie Creek is considered an attainment water for chromium VI because it is not listed as impaired on the 303(d) list for this constituent.¹ As discussed below, removal of the effluent limits complies with federal and state antidegradation requirements. Thus, removal of the effluent limitations for chromium VI from Order R5-2014-0055 meets the exception in CWA section 303(d)(4)(B).

2. **CWA section 402(o)(2).** CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance

¹ “The exceptions in Section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list.” State Water Board Order WQ 2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility.

(other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

Updated information that was not available at the time the previous order was issued indicates that chromium VI does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water, and that less stringent effluent limitations for chromium VI based on available data satisfy requirements in CWA section 402(o)(2). The updated information that supports the removal of effluent limitations for this constituent includes the following:

- a. The current screening level in the Limited Threat General Order is 10 µg/L based on the maximum contaminant level (MCL). In 2017, due to a court ruling, the State Water Resources Control Board adopted a resolution to remove the current MCL for chromium VI. Therefore, the MCL of 10 µg/L is stayed until the State Water Resources Control Board establishes a new MCL. Until then, the CTR chronic aquatic life criterion of 11 µg/L is the applicable water quality objective for chromium VI. Based on the Discharger's last three years of effluent monitoring data for chromium VI, the maximum effluent concentration of 10 µg/L indicates the discharge does not demonstrate reasonable potential to cause or contribute to an instream excursion of the applicable water quality objective in the receiving water. All effluent results are below the CTR criterion of 11 µg/L. Therefore, the effluent limits for chromium VI have not been included in this NOA.

Thus, removal of the effluent limitations for chromium VI from Order R5-2014-0055 is in accordance with CWA section 402(o)(2)(B)(i), which allows for the removal of effluent limitations based on information that was not available at the time previous Order R5-2014-0055 was issued.

B. Antidegradation Policies

This NOA does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The NOA requires compliance with applicable federal technology-based standards and with WQBEL's where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted surface water discharge is consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

This NOA removes effluent limitations for chromium VI based on updated monitoring data demonstrating that the effluent does not cause or contribute to an exceedance of the applicable water quality criteria or objectives in the receiving water. The

removal of WQBEL's for this parameter will not result in an increase in pollutant concentration or loading, a decrease in the level of treatment or control, or a reduction of water quality. Therefore, the Central Valley Water Board finds that the removal of effluent limitations does not result in an increase in pollutants or any additional degradation of the receiving water. Thus, the removal of effluent limitations is consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

II. RATIONALE FOR EFFLUENT MONITORING

A. Influent Monitoring

1. Influent monitoring is required to collect data on the characteristics of the wastewater and to assess compliance with effluent limitations. The annual monitoring frequencies and sample types for carbon tetrachloride, dissolved chromium VI, dichlorobromomethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, tetrachloroethylene, trichloroethylene, vinyl chloride, and cis-1,2-dichloroethylene have been retained from the previous individual NPDES permit, Order R5-2014-0055.
2. This Order removes influent monitoring for 1,4-dioxane since it is not a constituent of concern in the discharge to Magpie Creek or Beaver Pond and there are no established CTR criteria or MCLs for this constituent.

B. Effluent Monitoring

1. Pursuant to the requirements of 40 CFR section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.
2. Effluent monitoring frequencies and sample types for **EC and turbidity** (quarterly) have been retained from the previous individual NPDES permit.
3. Effluent monitoring frequencies (monthly) and sample types for **carbon tetrachloride, dichlorobromomethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, tetrachloroethylene, trichloroethylene, vinyl chloride, and cis-1,2-dichloroethylene** have been retained from the previous individual permit.
4. Effluent monitoring frequencies and sample types for **dissolved oxygen, pH, and temperature** have been reduced from monthly to quarterly since the discharger has demonstrated compliance with applicable water quality objectives. The Central Valley Water Board finds that these frequencies are sufficient for determining compliance with effluent limitations for these parameters.

5. Monitoring data collected over the previous permit term for **chromium VI (dissolved)** did not demonstrate reasonable potential to exceed water quality objectives/criteria. Therefore, effluent limits have been removed. The previous individual NPDES permit required monthly monitoring of chromium VI in the effluent. This NOA retains chromium VI (dissolved) monthly monitoring due to historical elevated levels of chromium VI in the influent groundwater.
6. Monitoring data collected over the previous permit term for **total hardness and 1,4-dioxane** did not demonstrate reasonable potential to exceed water quality objectives/criteria. Thus, routine monitoring requirements for these parameters have not been retained from the previous individual NPDES permit.
7. In accordance with Section 1.3 of the SIP, periodic monitoring for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established is required. As a Tier 2 discharger, this NOA requires monitoring for the constituents in Table 6 of this NOA once in 2021 in order to collect data to conduct an RPA for the next permit renewal.

C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity.** Consistent with Order R5-2014-0055, annual 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity.
2. **Chronic Toxicity.** Consistent with Order R5-2014-0055, annual chronic WET testing is required in order to demonstrate compliance with the narrative effluent limitations for chronic toxicity.

D. Receiving Water Monitoring

1. **Surface Water**
 - a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream.
 - b. The receiving water monitoring frequency and sample type for flow, pH, dissolved oxygen, electrical conductivity, temperature, and turbidity have been reduced from the previous individual NPDES permit from monthly to quarterly. The Central Valley Water Board finds that this frequency is sufficient for determining compliance with receiving water limitations.
 - c. This NOA removes receiving water monitoring for total hardness since the total hardness data does not exhibit reasonable potential to exceed water quality objectives in the receiving water. Hardness-dependent metals are not an issue in the discharge.