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## Central Valley Regional Water Quality Control Board

29 June 2020

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### **NOTICE OF APPLICABILITY (NOA); GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076-01 FOR LIMITED THREAT DISCHARGES TO SURFACE WATER; HIGH SIERRA EXPLORATION, LLC, AND U.S. FOREST SERVICE, TAHOE NATIONAL FORREST, KLONDIKE AND DUTCH TUNNEL MINES, SIERRA COUNTY**

High Sierra Exploration, LLC is the owner and operator of the Klondike and Dutch Tunnel Mines (Facility), which is currently an inactive placer and hard rock gold mine site. High Sierra Exploration, LLC owns the unpatented mining claim for the mine and the U.S. Forest Service owns and manages the property on which the Facility is located. High Sierra Exploration, LLC is considered the primary Discharger. However, the U.S. Forest Service is considered a secondarily responsible Discharger and will only be responsible for compliance with this NOA if High Sierra Exploration, LLC fails to comply with this NOA.

Our office received a Notice of Intent (NOI) on 26 September 2019 from High Sierra Exploration, LLC (Discharger), for discharge of untreated groundwater from the Klondike and Dutch Tunnel Mines (Facility) to surface water. The discharge is currently regulated under an individual Waste Discharge Requirements Order (WDR) R5-2015-0075 (NPDES No. CA0084387), which was rescinded by the Central Valley Regional Water Quality Control Board effective 1 August 2020. 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 3. This project is hereby assigned Limited Threat General Order R5-2016-0076-061 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. This NOA is effective on **1 August 2020**. Please reference your Limited Threat General Order number, **R5-2016-0076-061**, 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 [Limited Threat General Order](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](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf)).

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

## **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 Goodyears Creek, which is a water of the United States.

## **PROJECT DESCRIPTION**

The Facility is a placer and hard rock mine located approximately 4.5 miles northwest of Downieville in Sierra County, California (SEC 9, CA T20N, R10E; 39° 36' 51.49" N, - 120° 52' 4.54" W). The current project is a phased approach for a feasibility study to reopen the Dutch Mine. The portal for Klondike Mine has been covered by a landslide and there are no current plans on reopening the mine portal. The phased approach includes the rehabilitation of the Dutch Mine portal and the underground workings, which requires draining the groundwater from the mine (Phase 1), followed by an underground exploration and sampling program (Phase 2). This NOA covers Phase 1 of the project. Under Phase 2, the Discharger plans to construct a water clarification system to capture silt and sediment from the Dutch Mine to ensure water quality protective of Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) beneficial uses. The system will consist of a sump within the Dutch Mine that will convey water to a 10-inch underground culvert that discharges into a series of three (3) settling basins prior to discharge to Goodyears Creek via an 8-inch culvert.

As of the date of this NOA, the only activity at the Dutch Mine is the drainage of the uncontaminated groundwater from the mine. Approximately 20 gallons per minute (0.03 million gallons per day) of groundwater is currently piped from the mine to a metal weir that drains into buried steel drum (cut in half) before being piped underground for approximately 100 yards until it reaches the existing berm. The water is then piped above ground until it reaches the discharge point. From the discharge point, the water naturally flows down the slope until it reaches Goodyears Creek, approximately 2,000 feet from the discharge point.

Groundwater from the Klondike Mine is discharged via the Dutch Mine outfall. This NOA only authorizes discharges during Phase 1, as described above. If the Discharger determines that mining operations are favorable upon completion of Phase 1, prior to initiating construction of the treatment system and the initial underground mining and milling operations, the Discharger must submit an updated NOI that adequately characterizes the proposed discharge and an amendment to this NOA must be issued by the Executive Officer. This NOA does not authorize discharges during underground mining and milling operations or installation of the treatment system.

## **EFFLUENT LIMITATIONS**

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the Limited Threat General Order. Based on a comparison of the

analytical results to the screening levels in Attachment I of the Limited Threat General Order, effluent limitations are only required for the parameters identified, below:

1. **pH (Section V.A.1.b.i).** The pH of all limited threat discharges within the Sacramento River Basin shall always be within the range of 6.5 and 8.5 Standard Units.
2. **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.

The Receiving Water 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 are included in 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 in accordance with Attachment C of the Limited Threat General Order.

**MONITORING LOCATIONS**

The Discharger shall monitor the effluent at the specified location as follows:

**Table 1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Downstream from the last connection through which wastes from the Dutch Mine can be admitted into the outfall, prior to discharge into Goodyears Creek. Latitude: 39° 36' 47" N, Longitude: -120° 52' 02" W

**EFFLUENT MONITORING**

When discharging to surface water, the Discharger shall monitor the effluent at EFF-001 in accordance with this NOA. The applicable monitoring requirements are as follows in Table 2 and subsequent Table 2 Notes:

**Table 2. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Discharge Flow Rate	MGD	Estimate	1/Quarter
pH	standard units	Grab	1/Quarter
Total Suspended Solids	mg/L	Grab	1/Quarter
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Quarter
Settleable Solids	mL/L	Grab	1/Quarter
Temperature	°F	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter

**Table 2 Notes**

1. A hand-held field meter may be used for discharge flow rate, pH, temperature, and turbidity, 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.
2. **Applicable to 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.

**5-YEAR 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 considered a Tier 3 discharge; therefore, the Discharger shall submit monitoring results by **1 August 2022** for the following constituents shown in Table 3 and subsequent Table 3 Notes, below:

**Table 3. Effluent Characterization Monitoring**

Parameter	Units	Sample Type
Dissolved Oxygen	mg/L	Grab
Hardness, Total (as CaCO <sub>3</sub> )	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
Aluminum, Total Recoverable	µg/L	Grab
Iron, Total Recoverable	µg/L	Grab
Manganese, Total Recoverable	µg/L	Grab
Standard Minerals	mg/L	Grab
Acute Toxicity	percent survival	Grab
CTR Priority Pollutants	--	--

**Table 3 Notes**

1. The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table 2, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.
2. 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 and shall be sufficiently sensitive with Reporting Levels consistent with the Minimum Levels (MLs) in the SIP, Appendix 4.
3. A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
4. **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).
5. **Acute Toxicity.** The test species shall be rainbow trout (*Oncorhynchus mykiss*). See the Monitoring and Reporting Program (Attachment C of the Limited Threat General Order) for toxicity monitoring requirements.
6. **CTR Priority Pollutants.** See Table I-3 of the Limited Threat General Order for a complete list of CTR Priority Pollutants.

**RECEIVING WATER MONITORING – NOT APPLICABLE**

**MONITORING REPORT SUBMITTALS**

Monitoring in accordance with this NOA shall begin **1 August 2020**. Monitoring Reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Third Quarter 2020**. This report shall be submitted by **1 November 2020**. Table 4 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 4. Monitoring Periods and Reporting Schedule**

<b>Monitoring Period for All Sampling Frequencies</b>	<b>Quarterly Report Due Date</b>
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 or new activity affecting the 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

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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) and email them to the general Central Valley Water Board email ([centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov)). 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".

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, Attention: Mohammad Farhad. Mr. Farhad can be reached at (916) 464-1181 or [mohammad.farhad@waterboards.ca.gov](mailto:mohammad.farhad@waterboards.ca.gov). **Please include the attached Monitoring Report Transmittal Form as the first page of each Monitoring Report and the following information in the email:**

- Attention: NPDES Compliance Unit - Mohammad Farhad
- Discharger: High Sierra Exploration, LLC/ U.S. Forest Service
- Facility: Klondike and Dutch Tunnel Mines
- County: Sierra County
- CIWQS place ID: 862885

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 [Petitions Home 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

Patrick Fagen  
High Sierra Exploration, LLC  
Lon Henderson  
U.S. Forest Service

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Appendices:

Appendix A – Project Location Map  
Appendix B – Rationale for Effluent Limitations

Enclosures:

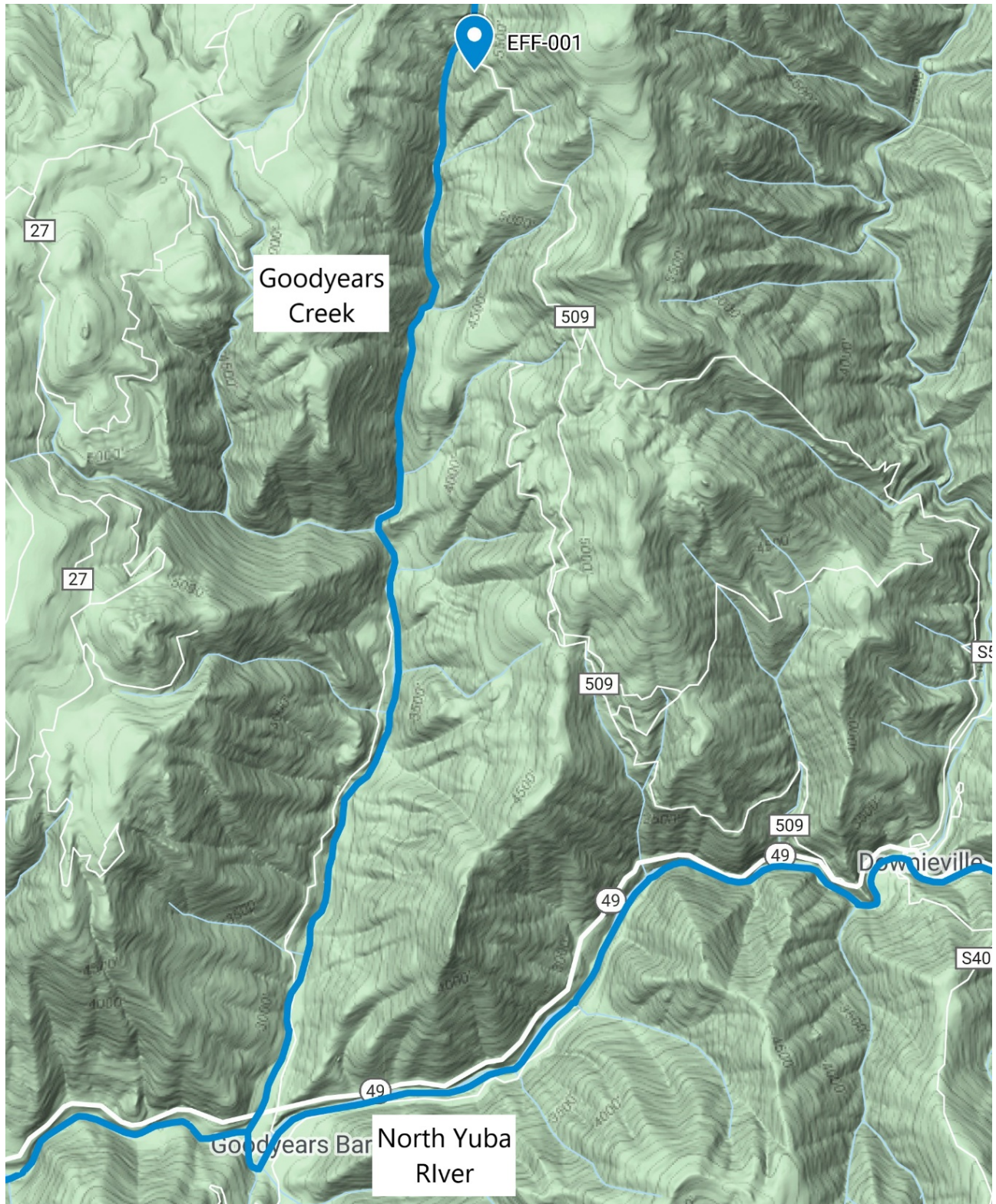
General Order R5-2016-0076-01 (Discharger only)  
Monitoring Report Transmittal Form (Discharger only)

cc:

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



**APPENDIX A – PROJECT LOCATION MAP**



## APPENDIX B – RATIONALE FOR EFFLUENT LIMITATIONS

### I. FINAL EFFLUENT LIMITATION CONSIDERATIONS

#### 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 C.F.R. section 122.44(l).

The effluent limitations in this NOA are at least as stringent as the effluent limitations in the previous Order, R5-2015-0075 with the exception of effluent limitations for cadmium. The effluent limitation for this pollutant is less stringent than that in Order R5-2015-0075. 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.

Goodyears Creek is considered an attainment water for cadmium because the receiving water is not listed as impaired on the 303(d) list for this constituent. 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 Resources Control Board Order WQ-2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility). As discussed below, removal of these effluent limits complies with federal and state antidegradation requirements. As discussed below, removal of the effluent limitations complies with federal and state antidegradation requirements. Thus, removal of the effluent limitations for cadmium 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 (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 Order R5-2015-0075 was issued indicates that cadmium does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Additionally, updated information that was not available at the time Order R5-2015-0075 was issued indicates that the removal of the effluent limitations for cadmium based on available data satisfy requirements in CWA section 402(o)(2). The updated information that supports the relaxation of effluent limitations for this constituent includes the following:

- a. **Cadmium.** Effluent monitoring data collection between August 2016 to October 2019 indicates that cadmium does not exhibit reasonable potential to cause or contribute to an exceedance to the acceptable criteria.

Thus, removal of the effluent limitations for cadmium 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 R5-2015-0075 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 C.F.R. 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 cadmium 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 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

## II. RATIONALE FOR MONITORING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program, Attachment C of the Limited Threat General Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring requirements contained in this NOA.

### A. Effluent Monitoring

1. Pursuant to the requirements of 40 C.F.R. 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 flow, pH, TSS, hardness, temperature, and turbidity have been retained from Order R5-2015-0075 to determine compliance with effluent limitations for these parameters.
3. Effluent monitoring frequency for cadmium was not retained from Order R5-2015-0075 as described above in section I.A of this Appendix.
4. Effluent monitoring for settleable solids was not retained from Order R5-2015-0075 because the Facility is not an active mining site; therefore, settleable solids effluent limits and the associated monitoring is not required.

### B. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity.** Order R5-2015-0075 required acute toxicity testing once the Discharger started actively mining. This NOA requires effluent monitoring for acute toxicity 96-hour bioassay (once per 5 year term) to demonstrate compliance with the effluent limitation for acute toxicity.
2. **Chronic Toxicity.** Effluent monitoring frequency for chronic toxicity bioassay testing (once per permit term) has not been retained from previous Order R5-2015-0075. Monitoring data collected over the permit term for Order R5-2015-0075 indicates that the discharger did not have reasonable potential to exceed of the Basin Plan's narrative toxicity objective for chronic toxicity.

### C. Receiving Water Monitoring

#### 1. Goodyears Creek

- a. Goodyears Creek is a small, steep, and hard to access ephemeral stream located in a canyon below the mine facilities, which has shown to have water quality that would not adversely affect Goodyears Creek. The flow path of the unnamed tributary extends approximately 2,000 feet down steep terrain prior to confluence with Goodyears Creek. There are safety concerns about accessibility to the site during certain times of the year

due to weather, road, and trail conditions. The significant amount of time required to hike to the RSW-002 and RSW-003 locations, upwards of an hour in favorable conditions, does not provide relevant comparison of upstream and downstream conditions to the effluent. For these reasons, receiving water monitoring would not provide sufficient information to evaluate compliance with receiving water limitations. Where feasible, compliance with the receiving water limitations will be evaluated through monitoring of the effluent. Therefore, the receiving water monitoring frequencies and sample types for pH, electrical conductivity, hardness, temperature, and turbidity have not been retained from Order R5-2015-0075.