

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2012-XXXX
REQUIRING

THE STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
EMPIRE MINE STATE HISTORIC PARK
NEVADA COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2012-XXXX
(NPDES PERMIT CA0085171)

The California Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) finds that:

1. On 23 June 2006, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2006-0058 and Time Schedule Order (TSO) R5-2006-0059, prescribing waste discharge requirements and compliance time schedules, for the State of California, Department of Parks and Recreation (Discharger) Empire Mine State Historic Park (Facility), in Nevada County
2. WDR Order R5-2006-0058 contains in part, Final Effluent Limitations IV.A.1 as follows:

<i>Parameter</i>	<i>Units</i>	<i>Effluent Limitations</i>			
		<i>Average Monthly</i>	<i>Maximum Daily</i>	<i>Instantaneous Minimum</i>	<i>Instantaneous Maximum</i>
<i>Turbidity</i>	<i>NTU</i>	<i>5</i>	<i>--</i>	<i>--</i>	<i>--</i>
<i>Arsenic, Total Recoverable</i>	<i>µg/L</i>	<i>10</i>	<i>29</i>	<i>--</i>	<i>--</i>
<i>Iron, Total Recoverable</i>	<i>µg/L</i>	<i>300</i>	<i>--</i>	<i>--</i>	<i>--</i>
<i>Manganese, Total Recoverable</i>	<i>µg/L</i>	<i>50</i>	<i>--</i>	<i>--</i>	<i>--</i>

c. Dissolved Oxygen: Dissolved oxygen in the discharge shall be no less than:

- i. 85 percent of saturation as the monthly median of the mean daily dissolved oxygen concentration;*
- ii. 75 percent of saturation as the 95 percentile dissolved oxygen concentration; and*
- iii. 7.0 mg/L at any time.*

3. The Discharger proposed to install a treatment system for removal of arsenic, iron, and manganese to comply with final effluent limitations in WDR Order R5-2006-0058. The proposed treatment system would also assist in compliance with turbidity and dissolved oxygen effluent limitations. WDR Order R5-2006-0058 and TSO R5-2006-0059 required that the treatment system be installed and operational by 18 May 2010.

4. On X June 2012, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2012-XXXX, for the Discharger’s Empire Mine State Historic Park.

5. WDR Order R5-2012-XXXX section IV.A.1 includes, in part, the following final effluent limitations:

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program:

Table 6. Effluent Limitations

<i>Parameter</i>	<i>Units</i>	<i>Effluent Limitations</i>			
		<i>Average Monthly</i>	<i>Maximum Daily</i>	<i>Instantaneous Minimum</i>	<i>Instantaneous Maximum</i>
<i>Priority Pollutants</i>					
<i>Arsenic, Total Recoverable</i>	<i>µg/L</i>	<i>10</i>	<i>29</i>	<i>--</i>	<i>--</i>

e. Dissolved Oxygen. Dissolved oxygen in the discharge shall be no less than:

- i. 85 percent of saturation as a monthly median of the mean daily dissolved oxygen concentration;*

- ii. 75 percent of saturation as the 95th percentile dissolved oxygen concentration within a calendar month; and*
- iii. 7.0 mg/L at any time.*
- f. Iron, Total Recoverable. For a calendar year, the annual average effluent concentration shall not exceed 300 µg/L.*
- g. Manganese, Total Recoverable. For a calendar year, the annual average effluent concentration shall not exceed 50 µg/L.*
- h. Turbidity. For a calendar year, the annual average effluent concentration shall not exceed 5 NTUs.*

Need for Time Schedule Extension and Legal Basis

6. The Discharger installed a new passive treatment system that began operation in November 2011. On 4 January 2012 (amended 17 January 2012), the Discharger requested that it be allowed until 1 June 2015 to achieve compliance with the final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity. Due to the nature of the passive treatment system, the Discharger anticipates that additional time is necessary for wetland vegetation and biogenic processes to become established and for the system to reach its design capacity for removal of arsenic, iron, manganese, and turbidity. Additionally, the Discharger indicated that the discharge may not be able to comply with the concentration-based effluent limitation for dissolved oxygen during the summer when the effluent flow is low and ambient heat could raise the temperature of the discharge within the conveyance pipe from the wetlands to the drainage channel, which could reduce the dissolved oxygen concentration. ~~Therefore, the Discharger proposed a schedule to achieve compliance with the final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity by 1 June 2015.~~

~~On 4 January 2012, the Discharger submitted a request for additional time to comply with the final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity. On 17 January 2012, the Discharger submitted an amendment to the 4 January 2012 request~~

Mandatory Minimum Penalties

7. CWC sections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties (MMP's) upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) exempts the discharge from mandatory minimum penalties "*where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300 or 13308, if all the [specified] requirements are met...for the purposes of this subdivision, the time schedule may not exceed five years in length...*"
8. Per the requirements of CWC section 13385(j)(3), the Central Valley Water Board finds that:
 - a. This Order specifies the actions that the Discharger is required to take in order to correct the violations that would otherwise be subject to CWC section 13385(h) and (i).
 - b. To comply with final effluent limitations, the Discharger proposed that an additional three years is necessary to allow at least two growing seasons for wetland plants to grow and an additional year afterwards to provide time for biogenic processes to become well established to achieve final compliance with effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity. The Discharger indicated that the effect of radiant heating will be reduced by shading as the system matures, and proposed that additional measures may be undertaken to comply with the dissolved oxygen effluent limitations if additional monitoring indicates that the discharge is unable to comply with the final effluent limitations for dissolved oxygen after two growing seasons (at least two calendar years). The final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity in WDR Order R5-2006-0058 were new,

more stringent, or modified regulatory requirements that became applicable to the waste discharge after the effective date of the waste discharge requirements (1 August 2006) or 18 May 2010 as reflected in the time schedule of TSO R5-2006-0059, and after 1 July 2000. Additional new or modified control measures are necessary in order to comply with the final effluent limitations for arsenic, iron, and manganese, ~~turbidity, and dissolved oxygen~~. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days as reflected in the compliance schedule in this Order.

- c. This Order establishes a time schedule to bring the waste discharge into compliance with the effluent limitations that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitations.

9. TSO R5-2006-0059 provided protection from MMP's, for violations of effluent limitations for arsenic, iron, and manganese, from 23 June 2006 to 18 May 2010. The compliance schedule did not exceed five years.

10. Previous CDO's or TSO's have not provided the Discharger with protection from MMP's for violations of the final effluent limitations for turbidity and dissolved oxygen.

911. By statute, Per the requirements of CWC Section 13385(j)(3)(C)(i), an individual Cease and Desist Order or Time Schedule Order may provide protection from MMP's for no more than five years, except as provided in Water Code section 13385(j)(3)(C)(ii). TSO R5-2006-0059 provided protection from MMP's for violations of effluent limitations for arsenic, iron, and manganese, from 23 June 2006 to 18 May 2010. MMP protection was extended for approximately four years in TSO R5-2006-0059 and thus the compliance schedule did not exceed five years.

102. Per the requirements of CWC Section 13385(j)(3)(C)(ii)(I) for the purpose of treatment facility upgrade, the time schedule shall not exceed 10 years. Per the requirements of 13385(j)(3)(C)(ii)(II) following a public hearing, and upon a showing that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the Central Valley Water Board may extend the time schedule for an additional five years beyond the initial five years, if the Discharger demonstrates that the additional time is necessary to comply with the effluent limitation. In accordance with CWC Section 13385(j)(3)(C)(ii)(I) the total length of the compliance schedules is less than ten years. The Central Valley Water Board finds, as described in previous findings in this Order, that the Discharger has demonstrated due diligence and is making diligent progress to bring the waste discharge into compliance with final effluent limitations. The Central Valley Water Board also finds that because of the Discharger's construction treatment system's vegetation and biogenic processes necessity to mature and become established for the treatment system to reach its design capacity, additional time is necessary to comply with the final effluent limitations.

~~The Discharger has installed a passive treatment system designed to achieve compliance with the final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity; however, additional time is necessary for wetland vegetation and biogenic processes to become established and for the system to reach its design capacity. Water Code section 13385(j)(3)(C)(ii)(II) allows for an extension of mandatory minimum penalty protection upon demonstration that a discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation if additional time is needed to comply with the effluent limitation. Therefore, compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity from the date of this Order until **1 June 2015**.~~

143. Compliance with this Order exempts the Discharger from MMPs for violations of certain final effluent limitations ~~for arsenic, dissolved oxygen, iron, manganese, and turbidity from xx~~

June 2012 (the date of this Order) until 1 June 2015: found in WDR Order R5-2012-XXXX as follows:

- a. Arsenic: Previous Orders provided protection from MMPs from 23 June 2006 to 18 May 2010. This Order provides protection from xx June 2012 (the date of this Order) until 1 June 2015.

- b. Iron and manganese: Previous Orders provided protection from MMPs from 23 June 2006 to 18 May 2010. This Order provides protection from xx June 2012 until 1 June 2015.

- c. Dissolved oxygen and turbidity: This Order does not provide protection from MMPs.

124. In accordance with CWC section 13385(j)(3), the total length of protection from MMPs for the constituents listed in Finding 11 above is less than ten years.

135. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for arsenic, ~~dissolved oxygen~~, iron, and manganese, ~~and turbidity~~ contained in WDR Order R5-2012-XXXX. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.

146. This Order includes new, performance-based interim effluent limitations for arsenic, ~~dissolved oxygen~~, iron, and manganese, ~~and turbidity~~.

- a. ~~The Central Valley Water Board calculated an interim maximum daily effluent limitation (MDEL) for arsenic based on the current treatment plant performance. With 10 or more sampling data points, sampling and laboratory variability is accounted for by establishing~~

~~interim effluent limitations that are based on normally distributed data where 99.9% of the data points will lie within 3.34 standard deviations of the mean (Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row). Therefore, an interim MDEL for arsenic was calculated using the mean plus 3.3 standard deviations.~~

~~Similarly, an interim average monthly effluent limitation (AMEL) for arsenic is based on normally distributed data where 95% of the data points will lie within 2.0 standard deviations of the mean. Therefore, an interim AMEL for arsenic was calculated using the mean plus 2.0 standard deviations. The following table shows the values used in the calculations and the resulting interim effluent limitations for arsenic:~~

ba. For arsenic, this Order establishes an interim maximum daily effluent limitation (MDEL) and an interim average monthly effluent limitation (AMEL) based on the current treatment plant performance. The MDEL was calculated using the mean of the effluent data plus 3.3 standard deviations, and the AMEL was calculated using the mean plus 2.0 standard deviations. The following table shows the values used in the calculations and the resulting interim effluent limitations for arsenic:

Parameter	Units	Mean	Standard Deviation	Interim Effluent Limitation Maximum Daily ¹	Interim Effluent Limitation Average Monthly ²
Arsenic, Total Recoverable	µg/L	100	155	600	400
¹ Mean+3.3Standard Deviations of the mean					
² Mean+2.0Standard Deviations of the mean					

eb. For iron, and manganese, ~~and turbidity~~, this Order establishes the new interim annual average effluent limitations based on the maximum observed annual average concentrations for these constituents between May 2008 and April 2011.

~~dc. For dissolved oxygen, this Order establishes a minimum concentration-based limitation of 5 mg/L, which the Discharger anticipates could occur at the site during the summer~~

~~months during periods of low flow and high sunlight, but retains the final percent saturation limitations in WDR Order R5 2012-XXX as interim percent saturation limitations.~~

157. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim effluent limitations included in this Order. Interim effluent limitations are established when compliance with the final effluent limitations cannot be achieved by the existing Facility. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim effluent limitations, however, establish an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.

18. If an interim effluent limit contained in this Order is exceeded, then the Discharger is subject to MMPs for that particular exceedance as it will no longer meet the exemption in CWC 13385(j)(3). It is the intent of the Board that a violation of an interim monthly effluent limitation subjects the Discharger to only one MMP for that monthly averaging period. In addition, a violation of an interim daily maximum effluent limit subjects the Discharger to one MMP for the day in which the sample was collected.

Other Regulatory Requirements

169. California Water Code (CWC) section 13300 states: *“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”*

2017. 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.

1821. The Discharger owns and operates the treatment system that is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the requirements in WDR Order R5-2012-XXXX and with this Order.

1922. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") for the following reasons, each of which is an independent basis for exemption pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).

a. This Order does not modify any compliance dates or other requirements of Order R5-2012-XXXX, which requires compliance with the effluent limitations addressed by this Order. This Order serves to enforce Order R5-2012-XXXX. This Order is exempt from CEQA under Water Code Section 13389, since the adoption or modification of a NPDES permit for an existing source is exempt and this Order only serves to implement a

~~NPDES permit. (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).~~

~~b. This Order does not have the potential to cause a significant impact on the environment (Title 14 CCR section 15061(b)(3)) and is not a "project" as defined by CEQA. This Order enforces preexisting requirements to improve the quality of ongoing discharges that are part of the CEQA "baseline"; and includes interim effluent limitations to ensure that discharges do not increase above the CEQA baseline. This Order imposes requirements that will maintain the CEQA baseline while the Discharger attains compliance with the existing requirements. The pollution prevention plan will identify source control measures in order to meet the preexisting effluent limitations. Since the compliance schedule is as short as possible and any actions to comply with the existing requirements are already required, this Order does not allow or cause any environmental impacts to occur; those impacts would occur regardless of this Order.~~

~~c. This Order is exempt pursuant to CEQA Guidelines Section 15321. The discharges subject to this Order are not "hazardous materials." Also, the discharges occur offsite and do not occur at the site itself.~~

~~203. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to adopt a new Time Schedule Order for this discharge and has provided them with an opportunity to submit their written views and recommendations. On XX June 2012, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider this Time Schedule Order under Water Code section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.~~

IT IS HEREBY ORDERED THAT Time Schedule Order R5-2006-0059 is rescinded, except for enforcement purposes, and, pursuant to California Water Code Sections 13300 and 13267:

1. The Discharger shall comply with the following time schedule to submit reports and ensure completion of the compliance project described in Finding 78, above:

Task	Compliance Date
Submit a new or updated Pollution Prevention Plan for arsenic, dissolved oxygen, iron, manganese, and turbidity <u>that meets the requirements specified in California Water Code Section 13263</u>	Within 6 months of issuance of this Order 1 December 2012
Comply with Final Effluent Limitations for arsenic, dissolved oxygen, iron, manganese, and turbidity	1 June 2015
Submit Annual Progress Reports documenting the steps taken to comply with this Order, describing the completion of tasks, progress of construction, evaluation of the effectiveness of the implemented measures, and an assessment of whether additional measures are necessary to meet the final compliance date.	1 June annually, after Order adoption until final compliance 2013, 1 June 2014, and 1 June 2015

2. The following interim effluent limitations for arsenic, ~~dissolved oxygen, iron, and manganese, and turbidity~~ shall be effective upon adoption of this Order, and shall apply in lieu of the corresponding final effluent limitations in WDR Order R5-2012-XXXX. The Discharger shall comply with the following interim effluent limitations through **31 May 2015**, or when the Discharger is able to come into compliance with the final effluent limitations shown below, whichever is sooner.

- a. **Arsenic.** Arsenic in the effluent shall not exceed:

Parameter	Units	Maximum Daily	Average Monthly
Arsenic, Total Recoverable	µg/L	600	400

~~b. **Dissolved Oxygen.** Dissolved oxygen in the discharge shall be no less than:~~

- ~~i. 85 percent of saturation as a monthly median of the mean daily dissolved oxygen concentration;~~
- ~~ii. 75 percent of saturation as the 95th percentile dissolved oxygen concentration within a calendar month; and~~
- ~~iii. 5 mg/L at any time.~~

~~eb. **Iron, Total Recoverable.** For a calendar year, the annual average effluent concentration shall not exceed 11,000 µg/L.~~

~~ec. **Manganese, Total Recoverable.** For a calendar year, the annual average effluent concentration shall not exceed 3,000 µg/L.~~

~~e. **Turbidity.** For a calendar year, the annual average effluent concentration shall not exceed 21 NTUs.~~

3. Any person signing a document submitted under this Order shall make the following certification:

"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 knowledge and 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."

4. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 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 Order, 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 Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

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EMPIRE MINE STATE HISTORIC PARK
NEVADA COUNTY

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or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **X June 2012**.

PAMELA C. CREEDON, Executive Officer