CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2017-0087
REQUIRING
STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
MALAKOFF DIGGINS STATE HISTORIC PARK
NEVADA COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2017-0086
(NPDES PERMIT CA0085332)

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

1. On 11 August 2017 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2017-0086, NPDES Permit No. CA0085332, prescribing WDRs for the State of California, Department of Parks and Recreation (hereinafter Discharger) at Malakoff Diggins State Historic Park (hereafter Park), Nevada County.
2. WDR Order R5-2017-0086 section IV.A.1.a. includes, in part, the following final effluent limitations applicable to discharges from the Park at Discharge Point No. 001 with compliance measured at Monitoring Location EFF-001:

Final Effluent Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	0.92	2.5
Mercury, Total Recoverable	µg/L	0.050	0.14
Nickel, Total Recoverable	µg/L	8.6	19

Need for Time Schedule Extension and Legal Basis

3. To date, there are no treatment and/or control systems in place at the Park. WDR Order R5-2017-0086 (NPDES Permit CA0085332) requires compliance with final effluent limitations for copper, mercury, and nickel by 1 October 2017. Order R5-2017-0086 also includes a compliance schedule and interim limitations for manganese and pH. Compliance with the final effluent limitations for pH and turbidity is required by 30 September 2027. New treatment and/or control measures are necessary in order to comply with the final effluent limitations for copper, mercury, and nickel. New treatment and/or control measures cannot be designed, installed, and put into operation within one year. For compliance with the final effluent limitations for copper, mercury, and nickel, the Discharger has requested time to develop and implement best management practices, collect additional monitoring data, and evaluate alternative treatment and/or control options.

Mandatory Minimum Penalties

4. California Water Code sections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. California Water Code 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...*".

5. Per the requirements of California Water Code 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 California Water Code sections 13385(h) and (i).

   b. The Discharger has stated that an additional five years is necessary to allow the time to complete site characterization, assess options for best management practices (BMPs), conduct an engineering evaluation of treatment and control alternatives, and implement the selected alternatives to comply with the final effluent limitations for copper, mercury, and nickel.

   c. The final effluent limitations for copper, mercury, and nickel, are new, more stringent, or modified regulatory requirements that became applicable to the waste discharge after the effective date of Order R5-2017-0086 and after 1 July 2000. New or modified control measures are necessary in order to comply with the final effluent limitations for copper, mercury, and nickel. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

   d. 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 treatment and/or control measures that are necessary to comply with the effluent limitations.

6. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years.

7. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for copper, mercury, and nickel, found in WDR Order R5-2017-0086, from 1 October 2017 (the effective date of this Order) until 30 September 2022.

8. In accordance with CWC section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for copper, mercury, and nickel does not exceed five years.

9. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for copper, mercury, and nickel, contained in WDR Order R5-2017-0086. 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.

10. This Order includes new discharge-concentration-based interim effluent limitations for copper, mercury, and nickel.

    For constituents with 10 or more sampling data points (copper, mercury, and nickel), 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, interim average monthly effluent limitations (AMELs) for copper, mercury, and nickel were calculated using the mean plus 3.3 standard deviations. Interim maximum daily effluent limitations (MDELs) for copper, mercury, and nickel were calculated based on the AMELs and the MDEL/AMEL multiplier from Table 2 of the SIP.

    In calculating interim effluent limitations for copper, mercury, and nickel, effluent data for the period between October 2011 and March 2017 were used. The following table summarizes the information used to calculate the interim effluent limitations for copper, mercury, and nickel:

Interim Effluent Limitations

Parameter	Units	MEC	Data points (n)	Mean	SD	CV	MDEL/AMEL Multiplier	Interim Effluent Limitations	
								Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	180	17	51.9	64.5	1.24	3.67	260	950
Mercury, Total Recoverable	µg/L	0.74	28	0.15	0.22	1.5	4.62	0.88	4.1
Nickel, Total Recoverable	µg/L	130	17	54.6	39.8	0.73	2.68	190	510

11. 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, or lack thereof. 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 limitations can be achieved.

12. 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

13. California Water Code 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*."

14. 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.*

15. The Discharger owns and operates the Park which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the WDRs and with this Order.

16. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") 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.).

17. On 11 August 2017, 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:

1. Pursuant to California Water Code Sections 13300 and 13267, the Discharger shall comply with the following time schedule to submit reports and ensure completion of the compliance project described in Finding 5.b, above:

Task	**Compliance Date**
1. Submit all monitoring data from wet season 2016-2017.	**1 November 2017**
2. Submit a Work Plan for an Engineering Evaluation that includes: a. Definition of spoils piles within the Pit; b. Slope Stability Analysis of Pit walls; c. Compilation of GPS coordinates for RSW-001and RSW-002 d. Pit Assessment (that may include but is not limited to): • Detailed Topographic Survey. • Hydrologic Model.	**1 April 2018**
3. Submit a Watershed Assessment a. Diggins Creek • Assess any other sources that may flow into Diggins Creek between Hiller Tunnel and Humbug Creek b. Humbug Creek, upstream of the confluence with Diggins Creek • Research additional sources of mercury, hardness-dependent metals, aluminum, iron, and manganese c. Humbug Creek, downstream of the confluence with Diggins Creek to the boundary of the Park • Research additional sources of mercury, hardness-dependent metals, aluminum, iron, and manganese, including but not limited to the Shaft 5 discharge to Humbug Creek and the NBT Outlet discharge to Humbug Creek.	**1 October 2018**
4. Submit the Engineering Evaluation Report from Task 2.	**1 October 2019**
5. Submit a BMP Options Assessment/Engineering Evaluation, including but not limited to the following Practices: a. Flow Diversion Practices such as storm water conveyance, diversion dikes, and graded areas. b. Exposure Minimization Practices such as containment diking, curbing, collection basins, sumps, and covering. c. Sediment and Erosion Prevention Practices such as preservation of natural vegetation, permanent seeding and planting, interceptor dikes and swales, pipe slope drains, subsurface drains, filter fences, brush and hay bale barriers, berms, sediment traps, sediment basins, check dams, and gradient terraces. d. Infiltration Practices such as vegetated filter strips, grassed swales, and infiltration trenches.	**1 April 2020**

e. Mitigation Practices such as excavation, filtration units, and sedimentation basins. f. Other Minimization, Preventive, and Mitigation Practices not listed here.	
6. Submit a BMP Plan for Executive Officer approval.	**1 October 2020**
7. Submit confirmation of financial resource commitment for selected BMPs.	**1 April 2021**
8. Submit a technical report documenting implementation of BMPs.	**1 October 2021**
9. Submit a technical report assessing mitigation and/or control alternatives and a time schedule for implementation of the selected alternatives to achieve compliance with final effluent limitations at EFF-001 by 30 September 2022.	**1 April 2022**
10. Comply with the Final Effluent Limitations for copper, mercury, and nickel.	**30 September 2022**
11. 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 April annually, beginning 1 April 2018**

2. Waste Discharge Requirements Order R5-2017-0086 contains a schedule for compliance with the final effluent limitations for manganese and pH. Tasks 1 through 8, and submittal dates for Annual Progress Reports (1 April 2018 to 1 April 2022) are the same in both compliance schedules.

3. Discharge from Discharge Point 001 shall not exceed the following interim effluent limitations. These interim effluent limitations for copper, mercury, and nickel are effective upon adoption of this Order and shall apply in lieu of the corresponding final effluent limitations in WDR Order R5-2012-0086. The Discharger shall comply with the following interim effluent limitations through 30 September 2022.

Parameter	Units	MEC	Data points (n)	Mean	SD	CV	MDEL/AMEL Multiplier	Interim Effluent Limitations	
								Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	180	17	51.9	64.5	1.24	3.67	260	950
Mercury, Total Recoverable	µg/L	0.74	28	0.15	0.22	1.5	4.62	0.88	4.1
Nickel, Total Recoverable	µg/L	130	17	54.6	39.8	0.73	2.68	190	510

4. 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."

5. 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

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 11 August 2017.

Original signed by

PAMELA C. CREEDON, Executive Officer