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## Central Valley Regional Water Quality Control Board

11 April 2024

Steve Cheney  
Union Pacific Railroad Company  
1400 Douglas Street, Stop 0910  
Omaha, NE 68179

**ORDER AMENDING NOTICE OF APPLICABILITY: STATE WATER RESOURCES CONTROL BOARD CLEAN WATER SECTION 401 GENERAL WATER QUALITY CERTIFICATION FOR REGIONAL GENERAL PERMIT 8 (ORDER WQ 2023-0061-DWQ), UNION PACIFIC RAILROAD COMPANY, CANYON SUB DERAILMENT PROJECT, PLUMAS COUNTY, WDID NO. 5A32CR00241A2**

This Order responds to the 10 April 2024 request for an amendment of the Canyon Sub Derailment Project Notice of Applicability. The original Notice of Applicability was issued on 21 February 2024 (WDID No. 5A32CR00241) and an amendment to authorize the use of suction dredging for the removal of coal from the Feather River was issued on 12 March 2024 (WDID No. 5A32CR00241A1). The requested amendment is hereby approved, and the original Certification and previously approved amendment are therefore amended as described below. Please attach this document to the original Certification and prior amendment.

**AMENDMENT:**

Union Pacific Railroad (UPRR) is requesting an amendment to the Notice of Applicability to authorize restoration and bank stabilization activities on the hillslope and north riverbank of the Middle Fork of the Feather River where the derailment occurred and at the access ramp and crane pad northwest of the derailment location. Therefore, Section I; Section II; and Section III are amended in underline format below. Section II, Table 2, Section IV, Table 5, and Attachment A, Figure 3 were added.

**I. EMERGENCY WORK DESCRIPTION**

On 11 February 2024, Union Pacific Railroad Company coal hopper cars derailed in the Feather River Canyon. The derailment consisted of 14 coal hopper cars, three of which entered the river, while several of the other cars spilled their contents down the embankment, with some of that material entering the Middle Fork Feather River.

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MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

An estimated 300 tons of coal in total entered the river. Two of the rail cars that entered the river were removed as part of the initial response.

The following plans are proposed to remove the remaining hopper car and coal from the river:

- A rock dike will be constructed from the embankment that extends out into the river approximately 100 feet. The dike will be approximately 24 feet wide at the base and 12 feet wide at the surface. Approximately 1,200 tons of clean, locally sourced, approximately 12 to 24-inch rock will be utilized. Rock will be dumped down the embankment and built out into the river utilizing an excavator.
- A 12-foot-wide access ramp will be constructed from the railroad right-of-way down to the floodplain from the west to the upstream edge of the floodplain.
- A 30 x 60-foot crane pad will be constructed using wood crane mats that extend out to the edge of the floodplain, and a crane will be moved into position on the pad.
- Using the crane, supersacks will be put in place starting at the end of the rock dike and extending downstream and tying into the right riverbank below the crane pad to construct a cofferdam.
- An impermeable turbidity curtain will be placed along the inside perimeter of the cofferdam enclosure.
- Within the enclosure a guzzler will be utilized to remove residual coal from the gondola car.
- The gondola car will be lifted or pulled out of the river to the riverbank at the crane pad location and removed.
- The crane will use a clamshell bucket to dredge coal from the riverbed within the enclosure. Coal will be removed until the enclosed portion of the river is visually clean.
- Suction dredging, in addition to clamshell dredging, will be used as an in-water coal removal method.
  - a. Suction dredging equipment will be staged along the railroad right-of-way and on the crane pad. Commercial divers and field workers will move a 4-inch-diameter dredge hose around the existing cofferdam enclosure to recover pockets of coal using the suction dredge. The suction dredge material will enter a weir tank or dewatering box where the coal and sediment will be allowed to settle out.
  - b. Water will be decanted from the settling tank and run through a sand filtration system to remove fine-grain coal and sediment.
  - c. The sand filter will be backwashed to clear sediments as needed to maintain function. The backwash water will be run through the treatment system.

- d. Every 4 hours during discharge from the treatment system, water samples will be collected from the outlet hose discharge port to collect water quality information (pH and turbidity) for reporting to the Central Valley Water Board.
  - e. Treated water will be discharged back into the cofferdam enclosure.
  - f. Surface water will be visually monitored continuously along the outside of the cofferdam and downstream for evidence of escapement of turbid water from the enclosure. A photolog will be maintained with the date, time, and clear imagery of water conditions in the river and within the enclosure. Photographs will be captured every hour during work activities. In addition, turbidity samples will be collected from the area adjacent to the crane pad (see Figure 2) at the same four-hour interval as the downstream compliance monitoring. If turbid water is observed escaping the enclosure or detected above compliance limits, in water work will be stopped, and engineering and or operational controls will be updated and implemented to stop the escapement.
- Coal will be loaded into dump trucks and hauled to the right-of-way for staging and offsite disposal.
  - Coal stockpiles will be placed on plastic sheeting to capture and contain water from the stockpiles.
  - Onsite personnel will remove the wastewater from the waste coal stockpiles via vacuum truck. Wastewater will be transferred into an onsite frac tank for temporary staging. A waste characterization sample will be collected and analyzed to facilitate disposal approval of the wastewater at an appropriate disposal facility.
  - Following the removal of coal from the river, an assessment of the water within the enclosure will be completed and a determination will be made in coordination with the Central Valley Water Board for the response on any treatment of river water in the cofferdam enclosure prior to release of the water and the removal of the cofferdam.
  - Following completion of the coal removal, the turbidity curtain, supersacks, and rock dike will be removed. The cofferdam and the temporary pad will be removed in a sequence that minimizes the downstream transportation of suspended solids.
  - A combination of bio-engineered and rip rap hardening will be implemented to restore and stabilize the embankment below the UPRR right-of-way, the north streambank where the derailment occurred, and the access ramp and crane pad to the northwest of the derailment location as per UPRR's *Restoration and Stabilization Plan* dated 10 April 2024, enclosed and incorporated herein by reference.

## II. DESCRIPTION OF DIRECT IMPACTS TO WATERS OF THE STATE

Total Project impacts are summarized in Tables 1 and 2.

**Table 1: Total Project Fill/Excavation Quantity for Temporary Impacts<sup>1</sup>**

<b>Aquatic Resources Type</b>	<b>Acres</b>	<b>Cubic Yards</b>	<b>Linear Feet</b>
Stream Channel	0.121	1,368	320
<u>Stream Channel (bank stabilization and restoration)</u>	<u>0.04</u>	<u>87.5</u>	<u>220</u>

**Table 2: Total Project Fill/Excavation Quantity for Permanent Physical Loss of Area Impacts**

<b>Aquatic Resources Type</b>	<b>Acres</b>	<b>Cubic Yards</b>	<b>Linear Feet</b>
<u>Stream Channel (bank stabilization and restoration)</u>	<u>0.04</u>	<u>87.5</u>	<u>220</u>

## III. WATER QUALITY MONITORING

### A. General:

If surface water is present, continuous visual surface water monitoring shall be conducted during active construction periods and suction dredging to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete). The Enrollee shall perform surface water sampling:

1. when performing any in-water work;
2. during the entire duration of temporary surface water diversions;
3. in the event that the Project activities result in any materials reaching surface waters; or
4. when any activities result in the creation of a visible plume in surface waters.

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<sup>1</sup> Includes only temporary direct impacts to waters of the state and does not include area of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or degradation of ecological condition.

**B. Accidental Discharges/Noncompliance:**

Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Central Valley Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

**C. In-Water Work or Diversions:**

During planned in-water work, dewatering activities, or during the installation of removal of temporary water diversions, any discharge(s) to waters of the state shall conform to the following water quality standards:

1. Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
2. Activities shall not cause dissolved oxygen to be reduced below 7.0 mg/L for waters designated with the COLD or SPWN beneficial uses in surface water.
3. Activities shall not cause pH to be depressed below 6.5 nor raised above 8.5 in surface water.
4. Activities shall not cause turbidity increases in surface water to exceed:
  - a. where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
  - b. where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
  - c. where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
  - d. where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
  - e. where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior permission of the Central Valley Water Board Executive Officer.

Sampling during in-water work, including suction dredging and restoration and stabilization activities, shall be conducted in accordance with Table 3

sampling parameters.<sup>2</sup> The sampling requirements in Table 3 shall be conducted upstream out of the influence of the Project, and approximately 750 feet downstream of the work area at sampling location Downstream 3.

The sampling frequency and/or monitoring locations may be modified for certain projects with written approval from Central Valley Water Board staff. A Water Quality Monitoring Report shall be submitted weekly. In reporting the data, the Enrollee shall arrange the data in tabular form so that the sampling locations, date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the Project complies with Order requirements. The report shall include surface water sampling results, visual observations, and identification of the turbidity increase in the receiving water applicable to the natural turbidity conditions specified in the turbidity criteria in III.C.4.

If no sampling is required, the Enrollee shall submit a written statement stating, "No sampling was required" in the weekly report.

**Table 3: Sample Type and Frequency Requirements**

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Visible construction related pollutants <sup>3</sup>	Observations	Visual Inspections	Continuous throughout the construction period
Dissolved Oxygen	mg/L and % saturation	Grab	Every 4 Hours
pH	Standard Units	Grab	Every 4 hours
Turbidity	NTU	Grab	Every 4 hours

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<sup>2</sup> Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Central Valley Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. 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 shall be maintained onsite.

<sup>3</sup> Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products, and construction-related, excavated, organic or earthen materials.

**D. Best Management Practice Effectiveness Monitoring:**

Best Management Practice (BMP) effectiveness monitoring during suction dredging shall be conducted in accordance with Table 4 sampling parameters.<sup>4</sup> The sampling requirements in Table 4 shall be conducted downstream of the cofferdam enclosure area approximately 50- to 100-feet downstream to detect the discharge of turbid water from the enclosure. If turbid water is observed escaping the enclosure, in-water work must be temporarily stopped until engineering or operational controls are implemented to stop escapement of turbid water from the enclosure. A BMP Effectiveness Monitoring Report shall be submitted to the Central Valley Water Board weekly.

**Table 4: BMP Effectiveness Monitoring Requirements**

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Visible construction related pollutants <sup>5</sup>	Observations	Visual Inspections	Continuous throughout the construction period
Photo Point	Photo	Photo Log	Hourly
Turbidity	NTU	Grab	Every 4 hours

**IV. COMPENSATORY MITIGATION****A. Mitigation for Temporary Impacts**

1. The Enrollee shall restore all areas of temporary impacts, including Project site upland areas, which could result in a discharge to waters of the state

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<sup>4</sup> Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Central Valley Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. 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 shall be maintained onsite.

<sup>5</sup> Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products, and construction-related, excavated, organic or earthen materials.

to pre-construction contours and conditions upon completion of construction activities in accordance with UPRR’s *Restoration and Stabilization Plan (Plan)* dated 10 April 2024, enclosed and incorporated herein by reference. The Plan includes the installation of willow and cottonwood plantings below and along the ordinary high water mark with the objective to reach pre-project vegetation density within three years of implementation.

2. The Central Valley Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination by Executive Officer that the performance standards have not been met or are not likely to be met within the monitoring period.
3. If restoration of temporary impacts to waters of the state is not completed within three (3) years of the completion of discharges, compensatory mitigation may be required to offset temporal loss of waters of the state.
4. Total required Project compensatory mitigation information for temporary impacts is summarized in Table 4. [Establishment (Est.), Re-establishment (Re-est.), Rehabilitation (Reh.), Enhancement (Enh.), Preservation (Pres.), Unknown].

**Table 4: Required Project Mitigation Quantity for Temporary Impacts**

<u>Aquatic Resource Type</u>	<u>Mitigation Type</u>	<u>Units</u>	<u>Est.</u>	<u>Re-est.</u>	<u>Reh.</u>	<u>Enh.</u>	<u>Pres.</u>	<u>Unknown</u>
<u>Stream Channel</u>	<u>Permittee Responsible</u>	<u>Acre</u>		<u>0.04</u>				

**B. Compensatory Mitigation for Permanent Impacts**

Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the state.

- 1. Purchase of Mitigation Credits by Enrollee for Compensatory Mitigation**
  - a. A copy of the fully executed agreement for the purchase of in-lieu fee credits shall be provided to the Central Valley Water Board within 90 days of authorized impacts and prior to the Central Valley Water Board’s approval of a Notice of Completion.
  - b. The Enrollee shall retain responsibility for providing the compensatory mitigation and long-term management until Central Valley Water Board



staff has received documentation of the credit purchase and the transfer agreement between the Enrollee and the seller of credits.

**2. Total Required Compensatory Mitigation**

- a. The Enrollee is required to provide compensatory mitigation for the authorized impacts to 0.04 acre of stream channel by purchasing 0.04 Aquatic Resource Credit from the National Fish and Wildlife Foundation’s (NFWF)’s Sacramento District California In-Lieu Fee Program in the Feather River Watershed Service Area.
- b. Total required Project compensatory mitigation information for permanent physical loss of area is summarized in Table 5. [Establishment (Est.), Re-establishment (Re-est.), Rehabilitation (Reh.), Enhancement (Enh.), Preservation (Pres.), Unknown].

**Table 5: Total Required Project Compensatory Mitigation Quantity for Permanent Physical Loss of Area**

<u>Aquatic Resource Type</u>	<u>Mitigation Type</u>	<u>Units</u>	<u>Est.</u>	<u>Re-est.</u>	<u>Reh.</u>	<u>Enh.</u>	<u>Pres.</u>	<u>Unknown</u>
<u>Stream Channel</u>	<u>In-Lieu Fee Credits</u>	<u>Credit</u>						<u>0.04</u>

**V. REPORTING**

The Enrollee must notify the Central Valley Water Board no less than forty-eight (48) hours prior to initiating the emergency project.

A Notice of Completion (NOC) shall be submitted by the Enrollee within 45 calendar days of completion of Project activities. The NOC shall demonstrate that the work has been carried out in accordance with the description provided in the Enrollee’s Notice of Intent.

Failure to comply with the terms and conditions of this NOA may expose the Enrollee to enforcement action pursuant to the Clean Water Act and California Water Code.

**VI. CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD  
CONTACT**

If you have any questions regarding this Notice of Applicability, please contact Lynn Coster at (530) 224-2437 or [Lynn.Coster@Waterboards.ca.gov](mailto:Lynn.Coster@Waterboards.ca.gov).

Original Signed by Clint Snyder, AEO

4/11/2024

(for) Patrick Pulupa, Executive Officer  
Central Valley Regional Water Quality Control Board

Date

LC: db

Enclosures: State Water Resources Control Board's Clean Water Act Section 401 General Water Quality Certification for Regional General Permit 8 for Emergency Repair and Protection Activities (Order WQ 2023-0061-DWQ)

Union Pacific Railroad Canyon Sub Derailment, Notice of Applicability Modification – Request to Include the Restoration and Stabilization Plan, April 10, 2024 (*Restoration and Stabilization Plan*)

cc via email: U.S. EPA, Region 9, San Francisco  
Water Quality Certification Program, SWRCB, Sacramento  
Shannon Morgan, U.S. Army Corps of Engineers, Reno, NV  
Robert Hosea, California Department of Fish & Wildlife, Rancho Cordova  
Nicholas Kautzman, Arcadis U.S., Inc, Highlands Ranch, CO

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Figure 2. Staging and Project Impacts Location Map

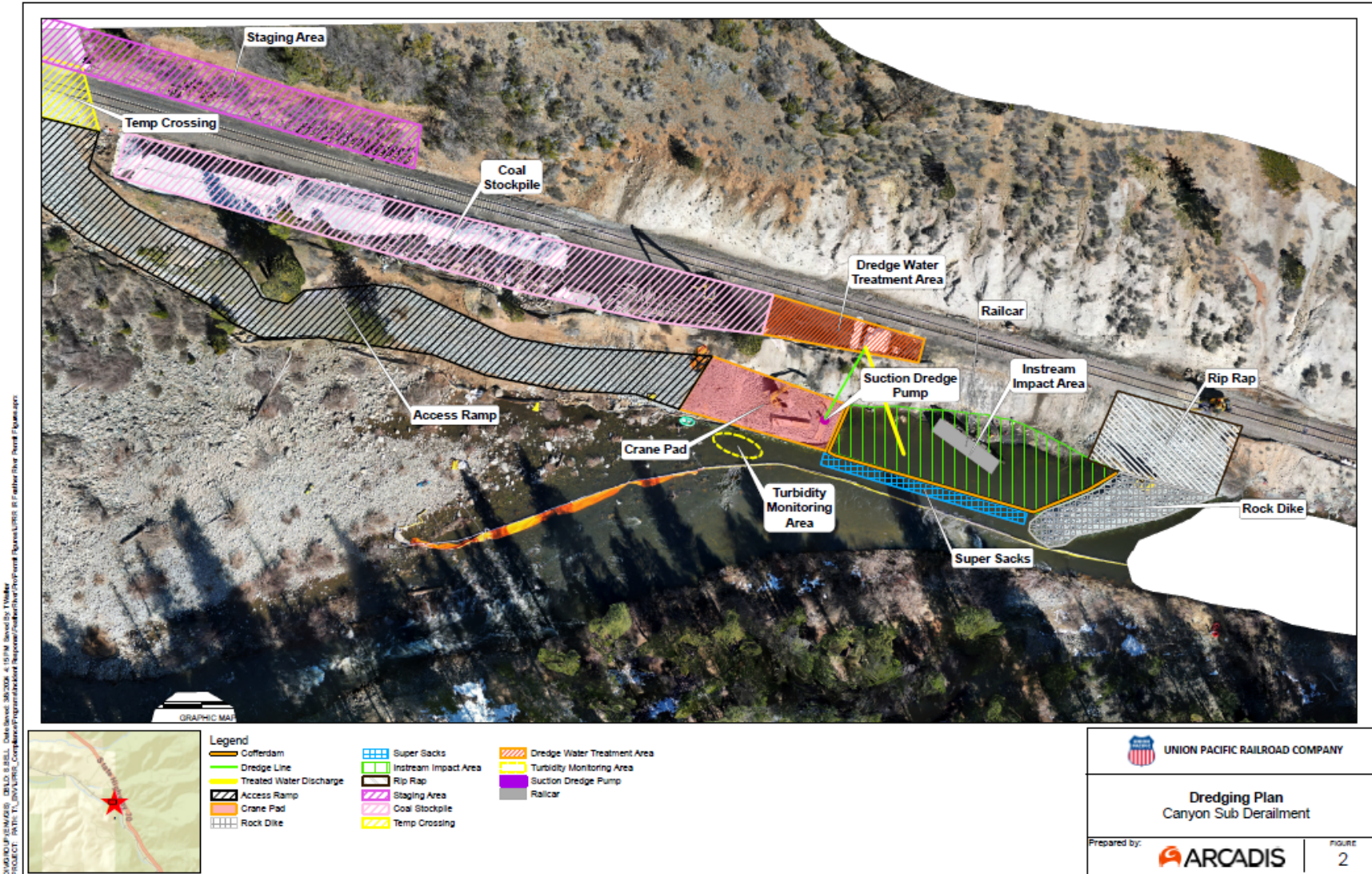


Figure 3. Bank Restoration and Stabilization Map

