29 March 2024

Jim Brannen
Sr. Manager Environmental Site Remediation
Union Pacific Railroad Company
1400 Douglas Street Stop 1030
Omaha, NE 68179

CERTIFIED MAIL:
7020 3160 0002 1905 2260

AMENDED NOTICE OF APPLICABILITY (NOA); GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-0006-011 FOR LIMITED THREAT DISCHARGES TO SURFACE WATER; UNION PACIFIC RAILROAD COMPANY, DEWATERING PROJECT, SISKIYOU COUNTY

Our office received a Notice of Intent (NOI) on 8 June 2022 from the Union Pacific Railroad Company (Discharger) for a dewatering project (Project) that involves the discharge of treated dewatering wastewater to surface water. Based on the application packet and subsequent information submitted by the Discharger, including an updated NOI on 11 January 2023, 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 2. This Project is hereby assigned Limited Threat General Order R5-2022-0006-011 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2022-0006-011**, in your correspondence and submitted documents. Please also note that the Limited Threat General Order was most recently amended in December 2023, so enrollment for this discharge is now covered by Order R5-2022-0006-02.

The Project activities shall be operated in accordance with the requirements contained in the Limited Threat General Order and as specified in this amended NOA. You are urged to familiarize yourself with the entire contents of the enclosed Limited Threat General Order (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf).

MARCH 2024 AMENDMENT

On 15 December 2023, the Discharger submitted an application for intake water credits for arsenic. Staff have reviewed the Discharger's application and determined that it

meets the requirements of the Limited Threat General Order. Therefore, this NOA has been amended to include intake water credits for arsenic.

On 7 March 2024, the Discharger requested an amendment of the NOA to include additional sources of influent to the existing treatment plant. These influent sources include extracted groundwater, water that accumulates in the turntable, and surface water run-on/precipitation. Currently, these influent sources are being directed to a groundwater extraction and treatment system (GWETS), on site, prior to being discharged to the Sacramento River; this discharge is currently regulated under Order R5-2016-0076-063. The existing treatment plant is superior to the GWETS in removing pollutants from the proposed influent. Furthermore, influent and effluent monitoring data indicates that the existing treatment plant has the ability to reduce constituent concentrations, in the proposed influent, below their respective water quality objectives. Therefore, this NOA has been amended to include influent from groundwater wells, the turntable sump, and surface water run-on/precipitation.

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 reasonable potential for the discharge to cause or contribute to an exceedance of 2,3,7,8-TCDD (Dioxin), antimony, arsenic, asbestos, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, mercury, cadmium, copper, lead, nickel, and zinc water quality objectives in the Sacramento River, which is a water of the United States; however, the proposed treatment system will address the water quality concern by reducing the constituent concentrations below their respective water quality objectives. Therefore, the Project qualifies for the Limited Threat General Order.

PROJECT DESCRIPTION

Location

The Dunsmuir Railyard Facility (Facility) is located in Siskiyou County, with the limits of the City of Dunsmuir, California, in the northeastern quarter of Section 25, Township 39 North, Range 4 West. The Facility is defined by a north-south oriented railroad right-of-way, that is approximately 2,100 feet long, and is bordered to the west by Sacramento Avenue and to the east by the Sacramento River. The Facility is an active railyard that has been in operation since the early 1900s.

Background

Historical operations have resulted in the release of unknown quantities of Bunker C fuel oil and diesel oil, which have migrated to the vadose zone, groundwater, and to the Sacramento River. Sources of the oil include spills or leakage from locomotives, storage tanks, conveyance pipelines, maintenance and repair activities, and other fuel handling areas at the Facility.

In June 2021, USEPA issued the Discharger Clean Water Act Order 311 09-2021-0002 (EPA Order), which requires the implementation of response actions to stop, control, and contain the discharge of oil from the Facility into the Sacramento River. The response action activities being implemented by the Discharger include the Project.

The Project involves excavating to depths below the water table down to either bedrock or to approximately 20 feet below grade to remove contaminated soil. The excavations below the water table will require dewatering to allow for soil removal and for placement of backfill material. The soil excavated from below the groundwater table will be decanted in a stockpile area at the north end of the Facility. The soil excavated from above the groundwater table will be transported to a stockpile area at the south end of the Facility for stockpiling and subsequent offsite recycling or disposal. Both stockpile areas contain sumps for wastewater collection. Approximately 67,000 cubic yards of oil-contaminated soil will be removed from the Facility.

Wastewater

The Discharger estimates that the Project will generate 500,000 gallons of wastewater per day on average; therefore, discharge to surface water is the only viable disposal option.

The Discharger characterized the wastewater by sampling two test pits, within the excavation area, for the constituents listed in tables I-3 and I-6, of the Limited Threat General Order. The sample results showed exceedances of several water quality objectives.

Treatment System

To comply with the requirements of the Limited Threat General Order, the Discharger has designed a treatment system to reduce the pollutant concentrations below their respective water quality objectives. The treatment system consists of sedimentation, oil removal, flocculation, and filtration. A treatment system schematic is included in Attachment B. The list below indicates the specific pollutants that each treatment component will be responsible for removing/reducing.

- **216,000 Gallon Storage Tank**
  - 48 ft diameter x 16 ft height
  - Increases settling, storage capacity, and surge capacity.
- **Over/Under Weir Tank (*Solids Removal*)**
  - Floating Oil (TPH-diesel, TPH-gas)
  - Heavy Sediment
  - Rocks
- **Oil-Water Separators (2) (*Oil Removal*)**
  - Hydrocarbon Removal
- **Frac Tanks (4) (*Flocculation*)**
  - Sedimentation of fine particulate material.
  - Removal of solids, heavy metals, and hydrocarbon. (TPH-diesel, TPH-gas, arsenic, antimony, cadmium, copper, iron, lead, manganese, mercury, nickel, and zinc)
- **Sand Filters (4) (*Sediment Filtration*)**
  - Removal of fine particulate sediment and any co-precipitated heavy metals and hydrocarbons. (TPH-diesel, TPH-gas, arsenic, antimony, cadmium, copper, iron, lead, manganese, mercury, nickel, and zinc)
- **Bag Filters (2), Cartridge Filters (2), GAC Units (6) (*Polishing*)**
  - Removal of remaining fine particulates, heavy metals, dioxins, and hydrocarbons. (2,3,7,8-TCDD (Dioxin), antimony, arsenic, asbestos, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno (1,2,3-cd)pyrene, mercury, cadmium, copper, lead, nickel, and zinc).

Prior to the commencement of the dewatering activities, the Discharger will perform a freshwater flush of their treatment system, using hydrant water from the City of Dunsmuir's water distribution system.

Influent to the treatment system consists of excavation dewatering wastewater, decant water from the north and south stockpile area, water that accumulates in the turntable, surface water run-on, stormwater, and extracted groundwater. The extracted groundwater will be pumped from two different remediation systems: a 1970s groundwater extraction system, which contains extraction wells EX-6, EX-7, and EX-8,

and a 1990s groundwater extraction and treatment system (GWETS), which contains collection well CW-1.

Receiving Water

Following treatment, effluent will be discharged into an infiltration gallery. The infiltration gallery is located between the yard access road and the former Engine House and consists of a 4-inch pipe that routes treated groundwater south of the treatment system and discharges it directly into the subsurface soil, which eventually drains into the Sacramento River. The infiltration gallery has a design capacity of approximately 1,000 gallons per minute (gpm).

INTAKE WATER CREDITS

The maximum reported influent concentration, measured in the upstream receiving water at monitoring location RSW-001, for arsenic exceeds the screening level specified in Table I-3 of the Limited Threat General Order. The Discharger has demonstrated that the discharge meets the conditions for granting intake water credits for arsenic. Per the Discharger, surface water and groundwater intermix and flow through the site. Based on information provided by the Discharger, the samples from the upstream receiving water show exceedances of the screening level for arsenic. Additionally, influent arsenic values are routinely reported above the screening levels. However, the effluent concentrations do not exceed the intake concentrations, and the Discharger does not add arsenic in the process. Therefore, the water quality-based effluent limitations for arsenic have been established considering intake water credits.

DISCHARGE PROHIBITIONS

Discharge prohibitions are specified in Section IV. Discharge Prohibitions of the Limited Threat General Order. Based on the information provided in the NOI, the following discharge prohibitions are applicable to this discharge:

1. **Prohibition IV.D.** The flow rate shall not exceed 500 gpm.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. Effluent Limitations and Discharge Specifications of the Limited Threat General Order. Based on the information provided in the NOI, effluent limitations are only required for the parameter identified in items 1-5, below:

1. **pH (Section V.A.1.b.i).** The pH of all limited threat discharges within the Sacramento and San Joaquin River Basins (except Goose Lake in Modoc County) shall at all times be within the range of 6.5 and 8.5.

2. **Whole Effluent Toxicity, Chronic (Section V.A.2.a).** There shall be no chronic toxicity in the discharge.

3. **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.

4. **Constituents and Parameters of Concern (Section V.A.1.e).** The following constituents and parameters in Table 1 below have been identified as having reasonable potential to cause or contribute to an in-stream excursion from water quality objectives of technology based effluent limits and shall not exceed the effluent limitations as listed.

Table 1. Effluent Limitations for Constituents and Parameters of Concern

Parameter	Units	Average Monthly Effluent Limitations	Maximum Daily Effluent Limitations	Annual Average Effluent Limitations	Parameters
Benzene	µg/L	--	0.5	--	V.B.4
Ethylbenzene	µg/L	--	0.5	--	V.B.4
1,2-Dichloroethane	µg/L	0.38	0.5	--	V.B.4
Naphthalene	µg/L	--	5.0	--	V.B.4
Toluene	µg/L	--	0.5	--	V.B.4
Di-isopropyl Ether	µg/L	--	5.0	--	V.B.4
Ethylene Dibromide	µg/L	0.05	0.10	--	V.B.4
Ethyl Tertiary Butyl Ether	µg/L	--	5.0	--	V.B.4
Methanol	µg/L	--	20	--	V.B.4
Methyl Tertiary Butyl Ether	µg/L	--	1.0	--	V.B.4
Carcinogenic PAHs	µg/L	0.0044	0.0088	--	V.B.4
Tertiary Amyl Methyl Ether	µg/L	--	1.0	--	V.B.4
Tertiary Butyl Alcohol	µg/L	--	10	--	V.B.4
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	--	50	--	V.B.4

Parameter	Units	Average Monthly Effluent Limitations	Maximum Daily Effluent Limitations	Annual Average Effluent Limitations	Parameters
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	--	50	--	V.B.4
Xylene	µg/L	--	0.5	--	V.B.4
Arsenic, Total	µg/L	10	20	--	V.A.1.f
Antimony, Total	µg/L	6	12	--	V.A.1.f
Benzo(a)anthracene	µg/L	0.0044	0.0088	--	V.A.1.f
Benzo(a)pyrene	µg/L	0.0044	0.0088	--	V.A.1.f
Benzo(b)Fluoranthene	µg/L	0.0044	0.0088	--	V.A.1.f
Benzo(k)Fluoranthene	µg/L	0.0044	0.0088	--	V.A.1.f
Chrysene	µg/L	0.0044	0.0088	--	V.A.1.f
Electrical Conductivity	µmhos/cm	--	--	700	V.A.1.d.i
Dibenzo(a,h)anthracene	µg/L	0.0044	0.0088	--	V.A.1.f
Indeno(1,2,3-cd)pyrene	µg/L	0.0044	0.0088	--	V.A.1.f
Mercury, Total	ng/L	--	--	12	V.A.1.f
Cadmium, Total Recoverable	µg/L	0.15	0.31	--	V.A.5.a
Copper, Total Recoverable	µg/L	3.7	7.5	--	V.A.5.a
Lead, Total Recoverable	µg/L	1.1	2.3	--	V.A.1.g
Nickel, Total Recoverable	µg/L	25	50	--	V.A.1.g
Manganese, Total Recoverable	µg/L	80	160	--	V.A.1.e
Zinc, Total Recoverable	µg/L	10	20	--	V.A.5.a
Total Residual Chlorine	mg/L	0.01	0.02	--	V.A.1.e

Table 1 Notes

1. **Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs).** Applies to the sum of benzo[a]pyrene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, and indeno[1,2,3-cd]pyrene.
2. **Xylene.** Applies to the sum of o-xylene, m-xylene, and p-xylene.
3. An intake water credit has been granted for arsenic. In accordance with the

> Limited Threat General Order, section V.A.4., the average monthly effluent arsenic concentration (i.e., AMEL) shall not exceed the corresponding average intake arsenic concentration (as measured at RSW-001) or the applicable effluent limit, whichever is greater. For compliance with the arsenic maximum daily effluent limitation (i.e., MDEL), the discharge shall be considered in compliance if the effluent concentration does not exceed the respective intake arsenic concentration (as measured at RSW-001) or the applicable effluent limit, whichever is greater. All samples shall be collected on the same calendar day.

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 will be added to this Limited Threat Notice of Applicability.

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:

- Chemical constituents (VIII.A.4);
- Color (VIII.A.5);
- Floating material (VIII.A.7);
- Oil and grease (VIII.A.8);
- pH (VIII.A.9.a);
- Suspended sediments (VIII.A.12);
- Settleable substances (VIII.A.13);
- Suspended material (VIII.A.14);
- Temperature (VIII.A.16.a);
- Toxicity (VIII.A.17); and
- Turbidity (VIII.A.18.a).

SPECIAL PROVISIONS

The Limited Threat General Order contains Provisions in Section IX.C. Based on information provided in the NOI the following site-specific special provisions are applicable to the Project.

Salinity Evaluation and Minimization Plan – The Limited Threat General Order in Section IX.C.3.c requires Dischargers with projects greater than or equal to 180 days in

duration to submit and implement a Salinity Evaluation and Minimization Plan to identify and address sources of salinity discharged from the Facility. Given the Project location and salinity levels in the groundwater, best management practices through implementation of a Salinity Evaluation and Minimization Plan are necessary to manage salinity levels. A Salinity Evaluation and Minimization Plan shall be submitted by **1 June 2023.**

For enrollees under the Salinity Control Program's Alternative Salinity Permitting Approach, Table 15 of the Limited Threat General Order includes performance-based electrical conductivity (EC) triggers to be included in the NOA to ensure the Salinity Evaluation and Minimization Plan is effective. The Discharge submitted a Notice of Intent for the Salinity Control Program in March 2023 indicating its intent to comply with the Alternative Salinity Permitting Approach and participate in the CV-SALTS Prioritization and Optimization Study. Based on EC data collected at the Facility in 2022, the maximum concentration for EC was 774 µmhos/cm, which results in an annual average EC effluent trigger of 1,100 µmhos/cm per Table 15 of the Limited Threat General Order. If the calendar annual average effluent EC exceeds 1,100 µmhos/cm, the Salinity Evaluation and Minimization Plan shall be reviewed and updated. The updated Salinity Evaluation and Minimization Plan shall be submitted by 1 April following the calendar year in which the electrical conductivity concentration exceeded the trigger.

MONITORING AND REPORTING

Monitoring and reporting requirements are contained in Attachment C of the Limited Threat General Order. The Discharger is required to comply with the following specific monitoring and reporting requirements for the influent, effluent, and receiving water in accordance with Attachment C of the Limited Threat General Order.

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

Table 2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Last connection before waste enters the treatment process.
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to the subsurface infiltration gallery and the Sacramento River.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	RSW-001	The Sacramento River, approximately 700 feet upstream from the point of discharge, adjacent to the northernmost module of the train crew quarters.
--	RSW-002	The Sacrament River approximately 500 feet downstream of the discharge point, at Butterfly Bridge.

Influent Monitoring – When discharging to surface water, the Discharger shall monitor the influent at INF-001 in accordance with Table C-2 of the Limited Threat General Order and this NOA. The applicable monitoring requirements are as follows in Table 3 and subsequent Table 3 Notes:

Table 3. Influent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Arsenic	µg/L	Grab	1/Month
Benzene	µg/L	Grab	1/Month
Ethylbenzene	µg/L	Grab	1/Month
1,2-Dichloroethane	µg/L	Grab	1/Month
Lead, Total	µg/L	Grab	1/Month
Naphthalene	µg/L	Grab	1/Month
Toluene	µg/L	Grab	1/Month
Di-isopropyl ether	µg/L	Grab	1/Month
Ethanol	µg/L	Grab	1/Month
Ethyl Tertiary Butyl Ether	µg/L	Grab	1/Month
Methanol	µg/L	Grab	1/Month
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Month
Tertiary Amyl Methyl Ether	µg/L	Grab	1/Month
Tertiary Butyl Alcohol	µg/L	Grab	1/Month
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	Grab	1/Month
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	Grab	1/Month
Xylene	µg/L	Grab	1/Month

Table 3 Notes

1. **Applicable to All Parameters.** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136; or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 CFR part 136 allowed sample type.
2. **Applicable to All Parameters (Except Lead, Total).** If these constituents are not present in any monitoring well or extraction well at the cleanup site, the monitoring well documentation may be submitted in lieu of the influent monitoring for these constituents. Confirmation samples on an annual basis shall be submitted to verify the absence of these chemicals. If three consecutive monthly influent sampling events result in non-detectable concentration, at appropriate detection limits, then the sampling frequency shall be reduced to quarterly. If three consecutive quarterly sampling events results in non-detectable concentration, at appropriate detection limits, then the sampling frequency shall be reduced to annually. If a detectable concentration is determined to be present in the wastewater, the frequency will be monthly.
3. **Xylene.** Xylene includes o-xylene, m-xylene, and p-xylene.
4. **Arsenic.** Samples shall be taken simultaneously (as feasible) from the treatment plant influent, the upstream receiving water, and the effluent. For every intake sample (measured at RSW-001) collected, a treatment plant influent and effluent sample shall also be collected. All samples shall be collected on the same calendar day.

Effluent Monitoring – When discharging to surface water, the Discharger shall monitor the effluent at EFF-001 in accordance with Tables C-3 and C-4 of the Limited Threat General Order and this NOA. The applicable monitoring requirements are as follows in Table 4 and 5 and their corresponding Table Notes:

Table 4. Effluent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Flow	MGD	Meter	1/Day
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab	1/Month
pH	standard units	Grab	1/Month
Turbidity	NTU	Grab	1/Month
Temperature	°F	Grab	1/Month
Total Dissolved Solids	mg/L	Grab	1/Month
Dissolved Oxygen (DO)	mg/L	Grab	1/Month
Hardness, Total (as CaCO3)	mg/L	Grab	1/Month
Asbestos	MFL	Grab	1/Month
Antimony, Total	µg/L	Grab	1/Month
Benzo(a)anthracene	µg/L	Grab	1/Month
Benzo(a)pyrene	µg/L	Grab	1/Month
Benzo(b)fluoranthene	µg/L	Grab	1/Month
Benzo(k)fluoranthene	µg/L	Grab	1/Month
Chrysene	µg/L	Grab	1/Month
Dibenzo(a,h)anthracene	µg/L	Grab	1/Month
Indeno(1,2,3-cd)pyrene	µg/L	Grab	1/Month
Phenanthrene	µg/L	Grab	1/Month
Arsenic, Total	µg/L	Grab	1/Month
Cadmium, Total Recoverable	µg/L	Grab	1/Month
Copper, Total Recoverable	µg/L	Grab	1/Month
Lead, Total Recoverable	µg/L	Grab	1/Month
Mercury, Total Recoverable	ng/L	Grab	1/Month
Nickel, Total Recoverable	µg/L	Grab	1/Month
Manganese, Total Recoverable	µg/L	Grab	1/Month
Zinc, Total Recoverable	µg/L	Grab	1/Month
Chlorine, Total Residual	mg/L	Grab	1/Hour
Acute Toxicity	% survival	Grab	1/Year
Chronic Toxicity	--	Grab	1/Year

Table 4 Notes

1. **Electrical conductivity, chlorine, pH, turbidity, temperature, and DO.** A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-

approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

2. **All parameters, except flow.** 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.

3. **For hardness, copper, lead, nickel, and zinc.** Monitoring for hardness shall be performed concurrently with effluent sampling for cadmium, chromium (III), copper, lead, nickel, silver, and/or zinc if effluent sampling for any of these pollutants is required.

4. **Acute and chronic toxicity.** Chronic and acute toxicity testing shall be conducted within 3 months of initiation of discharge. For acute toxicity testing, the test species shall be rainbow trout (*Oncorhynchus mykiss*). See the Monitoring and Reporting Program (Attachment C) for toxicity monitoring requirements.

5. **Total Mercury.** Unfiltered total mercury samples shall be taken using **clean hands/dirty hands procedures**, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section9.4.4.2). The analysis of total mercury shall be by U.S. EPA method 1630 and1631 (Revision E), respectively, with a **reporting limit of 0.5 ng/L for total mercury.**

6. **Priority Pollutants.** For all priority pollutant constituents listed in Table C-3 (Bis(2-ethylhexyl) phthalate, Persistent Chlorinated Hydrocarbon Pesticides and Priority Pollutants and Other Constituents of Concern) the RL shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP) and the SSM Rule specified under 40 C.F.R. sections 122.21(e)(3)and 122.44(i)(1)(iv).

7. **Freshwater Flush.** The Discharger is only required to monitor flow, electrical conductivity, pH, turbidity, temperature, total dissolved solids, and dissolved oxygen during the Freshwater Flush.

8. **Total Residual Chlorine**. Total Chlorine Residual monitoring is not required of non-chlorinated discharges.

9. **Arsenic.** Samples shall be taken simultaneously (as feasible) from the treatment plant influent, the upstream receiving water, and the effluent. For every intake sample (measured at RSW-001) collected, a treatment plant influent and effluent sample shall also be collected. All samples shall be collected on the same calendar day.

Table 5. Effluent Monitoring for Petroleum Fuel Pollution Remediation Projects

Parameter	Units	Sample Type	Minimum Sampling Frequency
Benzene	µg/L	Grab	1/Month
Ethylbenzene	µg/L	Grab	1/Month
1,2-Dichloroethane	µg/L	Grab	1/Month
Naphthalene	µg/L	Grab	1/Month
Toluene	µg/L	Grab	1/Month
Carcinogenic PAHs	µg/L	Grab	1/Month
Di-isopropyl Ether	µg/L	Grab	1/Month
Ethylene Dibromide	µg/L	Grab	1/Month
Ethyl Tertiary Butyl Ether	µg/L	Grab	1/Month
Methanol	µg/L	Grab	1/Month
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Month
Tertiary Amyl Methyl Ether	µg/L	Grab	1/Month
Tertiary Butyl Alcohol	µg/L	Grab	1/Month
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	Grab	1/Month
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	Grab	1/Month
Xylene	µg/L	Grab	1/Month

Table 5 Notes

1. **For 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.

2. **Applicable to All Parameters.**

   a. Analysis shall be conducted weekly for 4 consecutive weeks following initial discharge from the treatment system.

   b. If any sample shows detectable concentrations, the Discharger shall immediately resample and reanalyze the effluent for the detected constituent(s), and shall continue sampling the effluent on a weekly basis until the constituent(s) concentrations are below permitted levels.

   c. If three consecutive monthly sampling events result in

non-detectable concentrations, at appropriate detection limits, then the sampling frequency shall be reduced to quarterly.

d. If a detectable concentration is determined to be present in the wastewater the frequency will revert back to monthly.

e. Subsequent to the initial testing required in a. above, if a constituent is not present in the influent sample, then the testing for that constituent may be discontinued until detected in the influent.

3. **For CTR Priority Pollutants.** See Attachment I, Table I-3 of the Limited Threat General Order.

4. **Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs).** Includes benzo[a]pyrene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, and indeno[1,2,3-cd]pyrene

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 2 discharge. Therefore, the Discharger shall submit monitoring results by **1 April 2028** for the following constituents shown in Table 6 and subsequent Table 6 Notes, below:

Table 6. Effluent Characterization Monitoring

Parameter	Units	Sample Type
Biochemical Oxygen Demand (BOD)	mg/L	Grab
Total Suspended Solids (TSS)	mg/L	Grab
Dissolved Oxygen (DO)	mg/L	Grab
Hardness	mg/L	Grab
pH	standard units	Grab
Temperature	°F	Grab
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab
Total Dissolved Solids (TDS)	mg/L	Grab
Turbidity	NTU	Grab
Unionized Ammonia Nitrogen, Total (as N)	mg/L	Grab
CTR Priority Pollutants	See Attachment I, Table I-3 of the Limited Threat General Order	See Attachment I, Table I-3 of the Limited Threat General Order

Table 6 Notes

1. **For all parameters.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table E-3, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.
2. **For 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.
3. **For DO, pH, temperature, electrical conductivity, TDS, and turbidity.** A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
4. **For CTR Priority Pollutants.** See Attachment I, Table I-3 of the Limited Threat General Order.

Receiving Water Monitoring - When discharging to surface water, the Discharger shall monitor the receiving water at RSW-001 and RSW-002, in accordance with Table C-6 of the Limited Threat General Order and this NOA. If there is no upstream receiving water flow, monitoring at RSW-001 is not required and the self-monitoring report shall state that monitoring was not conducted due to no upstream receiving water flow. The applicable monitoring requirements are as follows in Table 7 and subsequent Table 7 Notes:

Table 7. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Monitoring Frequency
Arsenic, Total	µg/L	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Month
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab	1/Month
Hardness, Total (as CaCO3)	mg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°F	Grab	1/Month
Turbidity	NTU	Grab	1/Month

Table 7 Notes

1. **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.

2. **All parameters except for hardness.** A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained by the Discharger.

3. **Arsenic.** Samples shall be taken simultaneously (as feasible) from the treatment plant influent, the upstream receiving water, and the effluent. For every intake sample (measured at RSW-001) collected, a treatment plant influent and effluent sample shall also be collected.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

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

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

Monitoring Report Submittals - Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Monitoring Reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Second Quarter 2023**. This report shall be submitted on **1 August 2023**. All Monitoring Reports shall specify the dates during the monitoring period the discharge did or did not occur. If monitoring samples were not obtained within 24 hours of initiation of the discharge, the Discharger must document the reasons in the corresponding Monitoring Report. If treatment and discharge has not begun there is no need to monitor. However, a certified Monitoring Report must be submitted stating that there has been no discharge. Table 8, below, summarizes the Monitoring Report due dates required under the Limited Threat General Order. Quarterly Monitoring Reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge during the reporting quarter.

Table 8. Monitoring Periods and Reporting Schedule

Monitoring Period for All Sampling Frequencies	Quarterly Report Due Date
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, 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 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). 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: Michael Collins at

centralvalleyredding@waterboards.ca.gov and Michael.Collins@waterboards.ca.gov. Mr. Collins may also be reached by phone at (530) 224-4785.

Please include the following information in the body of the email:

Attention: NPDES Compliance Unit

Discharger: Union Pacific Railroad Company

Facility: Dunsmuir Railyard

County: Siskiyou County

CIWQS place ID: 220849

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".

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) or will be provided upon request.

Clint Snyder, AEO
Digitally signed by Clint Snyder, AEO
Date: 2024.03.29 11:57:32 -07'00'
Water Boards

(for) Patrick Pulupa, Executive Officer

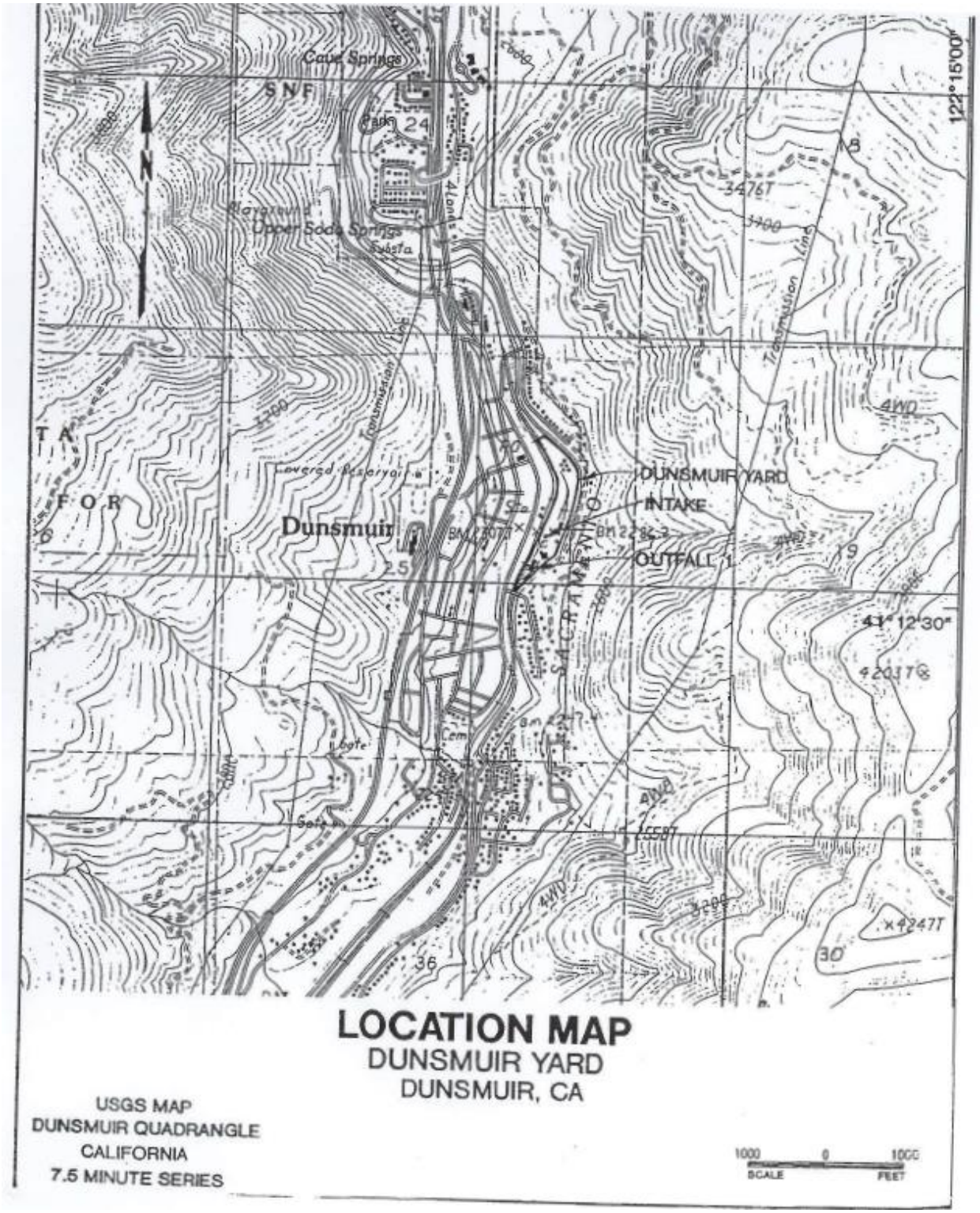
MC: cc

Enclosures (4): Attachment A - Project Location Map
Attachment B – Treatment Plant Schematic
Monitoring Report Transmittal Form (Discharger only)
Limited Threat General Order, Order No. R5-2022-0006-02 (Discharger Only)

cc electronically:

Prasad Gullapalli, U.S. EPA Region IX, San Francisco
Division of Water Quality, State Water Board, Sacramento
Tom Lae, Jacobs, Redding
Donna Laudermilch, Jacobs, Sacramento
Michael Makerov, Union Pacific Railroad Company, Los Angeles
Anne Walters, Central Valley Water Board, Rancho Cordova
Kate Sjoberg, Central Valley Water Board, Redding
Mey Bunte, Central Valley Water Board, Redding
Jerred Ferguson, Central Valley Water Board, Redding

ATTACHMENT A – PROJECT LOCATION MAP



ATTACHMENT B – TREATMENT PLANT SCHEMATIC