MEMORANDUM CH2MHILL

Remedy Implementation Plan - Union Pacific Railroad Ashland - Former SP Yard, Ashland, Oregon

PREPARED FOR: Ann Seltzer, City of Ashland

PREPARED BY: Mark Ochsner/CH2M HILL

COPIES: Gary Honeyman/Union Pacific Railroad

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1.0 Introduction

This memorandum presents an overview of the remedial action work proposed for the UPRR Ashland Yard (Yard) located in Ashland, Oregon, as shown in Figure 1. The remedial alternative selected and agreed to by the Oregon Department of Environmental Quality (ODEQ) and UPRR consists of shallow soil excavation in the east and west portions of the site. The Site is impacted with inorganic lead and arsenic, petroleum hydrocarbons, and polynuclear aromatic hydrocarbons (PAHs) in soil. Groundwater has not been impacted above State clean-up levels and is not part of the site remedy.

The completion of the site remedy will be completed in five distinct phases of work and includes the following:

- Phase I Installation of a temporary rail spur to the central portion of the site.
- Phase II Removal of non-aqueous phase liquid (NAPL) areas consisting of Bunker C at three locations to approximately 8 feet in depth, concrete tank saddles, oil/water separator at the east end of the site.
- Phase III Removal of soil to 2.5 feet in depth from the west end of the site.
- Phase IV Removal of soil to 2.5 feet from the east end of the site.
- Phase V Remove temporary rail spur and final grading.

2.0 Summary of Selected Soil Remedy

Surface soils in two primary areas of the site are proposed to be excavated. These areas are outlined by the two yellow polygons on Figure 1. Removal of NAPL consisting of Bunker C are outlined by the blue areas in Figure 1 and labeled as "NAPL Areas". The areas chosen have the highest detected concentrations of arsenic, petroleum hydrocarbons and PAHs.

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The following remedy was selected and includes:

• Excavation and offsite disposal of two areas of contaminated surface soil to a depth of 2.5 feet below ground surface (ft bgs) and the three "NAPL Areas" identified on Figure 1 to a depth of 8 feet bgs. The total volume of soil to be excavated from the two areas is approximately 36,000 tons. Excavated material will be transported offsite by rail for landfill disposal.

1.1 Waste Management

Excavated Soil

UPRR's Contractor will be responsible for storing, loading, transporting, and properly disposing of all impacted excavated soils. The Contractor will be responsible for the disposal of concrete rubble, old equipment, old railroad ties, or other debris. The Contractor will properly dispose of materials in accordance with applicable state and local regulations. Based on the soil sample results, all soil is non-hazardous. The selected disposal facility is ECDC located in Utah.

Soil will be transported by rail minimizing truck traffic and greenhouse gas emissions associated with this remedial action implementation. This waste transportation method supports integration of green remediation techniques into remedial action implementation.

3.0 Dust Suppression/Air Monitoring

Based on the proposed schedule described in Section 7, most of the excavation work is planned for winter/spring months when the soils are wetter and not during the drier summer months. During completion of the remedy, the Contractor will use a water truck for dust suppression while working onsite.

4.0 Noise

UPRR anticipates that its Contractor will utilize standard excavation equipment at the site, which will include front-end loaders, dump trucks, and water trucks. Based on discussions with the City there is not a decibel-related noise limit for excavation/construction. The Contractor will use personal protective noise abatement measures during work activities.

5.0 Required Permits

A review has been completed and the following permits are necessary:

- A construction/excavation permit from the City of Ashland.
- A 1200-C construction permit is required by ODEQ (per management of stormwater) since the construction area is greater than 1 acre in size.

6.0 Community Outreach

It is anticipated that ODEQ Project Manager Geoff Brown in Eugene will consult with city staff to develop and implement community outreach programs.

7.0 Schedule

UPRR proposes to complete the remedy in a phased approach. The reasons for this include:

- Availability of railcars for loading and transport of impacted soil. It is estimated that 400 railcars will be required to complete the remedy.
- Allows for continued community outreach during implementation of the remedy.

The approximate timing of the 5 phases of work is summarized below.

Phase I – Installation of the rail spur – Fall/Winter 2012

Phase II - Removal of NAPL Areas (Bunker C) - Winter/Spring 2013

Phase III - Removal of soil to 2.5 feet in depth from the west end of the site - Fall/Winter 2013.

Phase IV - Removal of soil to 2.5 feet from the east end of the site - Spring 2014.

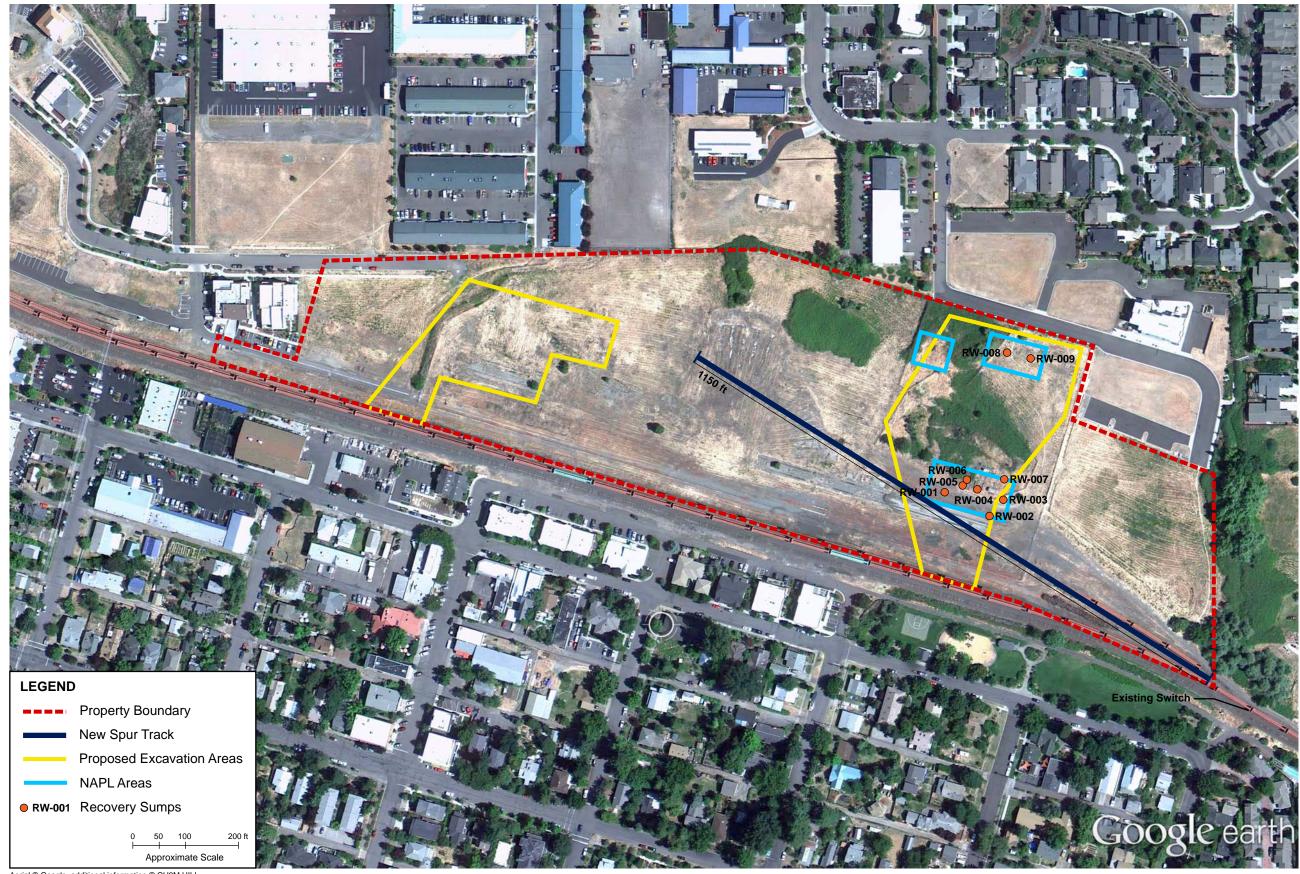
Phase V - Remove temporary rail spur and final grading - Spring 2014.

7.1 Time of Operation

It is anticipated that UPRR's Contractor will work 5 to 6 days per week during excavation and loading activities. Hours of operation are normally 7am to 4:30pm.

7.2 Security

The site is currently fenced with entrance and egress gates on the west and east end of the site. The fencing and locked gates will be maintained throughout the duration of the remedy implementation. Equipment used during the remedy will be stored onsite within the fenced area.



Aerial © Google, additional information © CH2M HILL

FIGURE 1 Former SP Yard *Union Pacific Railroad Company Ashland, Oregon*