

Hazardous Materials Corridor Study

**US 199 Expressway Upgrade
Key #14019
Redwood Highway, MPs 0.78 to 4.44
Grants Pass, Josephine County**

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Executive Summary

ODOT Region 3 HazMat Group conducted a Hazardous Materials Corridor Study for the project US 199 Expressway Upgrade (Key #14019). The purpose of the assessment was to identify potential environmental conditions (sources of hazardous materials) that could impact project construction.

The Corridor Study identified the following Recognized and Potential Environmental Conditions (RPECs) that could impact the proposed construction or right of way acquisitions. The recognized environmental conditions (identified environmental sites) found within the project corridor consisted of those sites identified on the Oregon Department of Environmental Quality (DEQ) on-line Facility Profiler search that were either Environmental Cleanup Sites (ECSIs), Resource Conservation and Recovery Act (RCRA) generators, Leaking Underground Storage Tank (LUST) sites or sites with registered Underground Storage Tanks (USTs). Even though some of the identified sites have multiple RPECs, each location was only counted as one site.

There were 16 sites with RPECs identified on the DEQ on-line facility profiler that are located within the project corridor shown in Figure 2. The following environmental conditions were identified at the sites:

- Three ECSI sites
- 12 LUST sites with 19 total LUSTs
- Seven registered USTs
- Two RCRA generators
- Three active gasoline stations

Please see Appendix B for summarized site information, Appendix C for site photographs and Appendix F for in-depth information regarding the identified DEQ sites and facilities.

There were 25 potential sites identified within the project corridor during three site visits. These sites are suspected of having Potential Environmental Conditions (PECs), even though there is no DEQ on-line information regarding these sites. See Appendix B for information regarding the potential sites and Appendix C for site photographs.

Based on these findings, ODOT HazMat Group recommends the following:

- After a final roadway alignment and design is identified, a Level 2 Preliminary Site Investigation (PSI) is recommended for the areas affected within or near the project corridor with RPECs.
- A subsurface investigation on or adjacent to each property of acquisition or proposed excavation identified with a RPEC
- Subsurface sampling may include analysis for petroleum hydrocarbons using the Northwest Total Petroleum Hydrocarbon Identification (NWTPH-HCID) method, Polychlorinated Biphenyl's (PCBs), RCRA Metals, Asbestos and Lead-based paint.
- Based on multiple site listings, sites may or may not be added upon completion of the Level 2 PSI report.

If the scope of the project changes to include additional excavation or right of way acquisition, please contact the Region HazMat Coordinator.

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1. Introduction

The Oregon Department of Transportation (ODOT) Region 3 Hazardous Materials Group (HazMat) has conducted this Hazardous Materials Corridor Study for the project:

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The Corridor Study is intended primarily as an approach to identifying potential sources of contamination that could impact the project. Such impacts could affect worker safety, property value, and project costs. Since ODOT has not yet determined the project details, this report provides an overview of potential contamination issues, rather than considering specific property acquisitions or excavations.

Proposed construction activities in the project corridor include the following:

- New roadway alignments including: a new frontage road from Grants Pass city limits to Allen Creek, extending Allen Creek Road northward, re-aligning the intersection of Allen Creek Road and Redwood Avenue further north and minor realignment of westbound US 199 lanes for a frontage road
- Construction of new sidewalks, curbs and storm drains along re-aligned portions of US 199
- Installation of new subsurface utility lines in areas of realignment
- Replacement of traffic signals and poles at new or modified intersections
- Construction of a raised median along US 199 from the Josephine County fairgrounds to Midway Avenue

2. Corridor Description

The project corridor lies within Section 19, Range 5W, Township 36S and Sections 21-29, Range 6W, Township 36S. (see Figures 1 and 2 in Appendix A). This is primarily a residential, commercial, industrial and rural area.

2.1. Physical Setting

According to the USGS 7.5' Wilderville and Grants Pass Quadrangle Maps, the project corridor is at an elevation of approximately 915 to 1040 feet above mean sea level. The local topography generally slopes down to the northwest, north and northeast. The nearest surface water bodies are the Rogue and Applegate Rivers, which are located approximately 0.2 and 0.8 miles from the project corridor, respectively. The Applegate River is located west of the project corridor, and the Rogue River is located north of the project corridor.

Based on the local topography and proximity of surface water bodies, local groundwater flow is presumed to be to the northwest, north and northeast. However, local subsurface geologic and manmade features can affect groundwater flow; therefore, this groundwater flow interpretation is only an estimate based on surface observations.

Review of water well records filed with the Oregon Department of Water Resources (ODWR), indicates that depth to groundwater in the project corridor ranges between 8 and 60 feet below ground surface (see Appendix G for well logs).

2.2. Observations

ODOT HazMat conducted site investigations on February 15 and 16, 2005. The investigations consisted of systematically traversing the corridor and viewing adjacent properties from roadways and public access areas. Photographs documenting reconnaissance observations are included in Appendix C. The AASHTO Initial Site Assessment (ISA) Checklist is provided in Appendix D.

Land use adjacent to the corridor includes the following: residential housing, apartment buildings, retail stores, warehouses, gasoline stations, dry cleaners, industrial facilities, etc. The table below summarizes potential sources of hazardous substances identified during the site reconnaissance.

Potential Sources of Hazardous Substances	Present?
Heating oil tanks	Yes
Aboveground Storage Tanks (ASTs)	Yes
USTs, fill and vent pipes, fuel dispensers	Yes
Other hazardous substance containers	Yes
Hazardous waste generation	Yes
Oil water separators, dry wells or floor/storm drains	Yes
Septic systems	No
Stains or odors	Yes
Stressed vegetation	Yes
Solid waste	Yes
Suspect asbestos-containing materials	Yes
Suspect lead-based paint	Yes
Potential PCB-containing equipment	Yes
Florescent or mercury vapor light bulbs	Yes
Treated timbers	No
Water wells or monitoring wells	Yes

Specific details regarding potential hazmat sources are provided below. The locations of identified and potential sites are shown in Figures 3 and 4 in Appendix A.

3. Historic Records

3.1. Aerial Photographs

ODOT HazMat reviewed aerial photographs dated from 1957 to 1982 obtained from ODOT Geometronics, to clarify past land uses. Copies of photographs from 1957, 1970, 1974 and 1976 are included in Appendix E.

3.2. Sanborn Fire Insurance Maps

ODOT HazMat reviewed Sanborn Fire Insurance Maps dated from 1930 to 1950 available from the Oregon State Library, to identify past land uses, as described below. Copies of the maps are included in Appendix E.

Address/Location	1930 - 1950
SW from Intersection of Redwood Highway and the Williamson Highway	Former Unocal Oil Facility; Currently a Dutch Bros Coffee Shop
250 Redwood Highway	Former CA Bulk Plant; Currently a Guthrie Motors
Was located adjacent to former CA Bulk Plant Facility	Former Car Repair Shop; Currently a Guthrie Motors

4. Environmental Records Review

ODOT reviewed available State records for identified hazardous waste sites using information available through the Oregon Department of Environmental Quality (DEQ) on-line Facility Profiler and the Oregon State Fire Marshal (OSFM) hazardous substance incident database (see Appendix F for DEQ site information). ODOT used the database search radii set forth below along with the total number of sites found for each database searched.

Database Record	ASTM Search Radius	Total Sites Found	On or Adjoining Project Corridor
Environmental Cleanup Site Information System (ECSIS)	Within Project Corridor	3	3
Oregon Permitted Landfills	Within Project Corridor	0	0
Leaking Underground Storage Tanks (LUSTs)	Within Project Corridor	19	19
Registered Underground Storage Tanks (USTs)	Within Project Corridor	7	7
OSFM Hazardous Substance Incidents	Within Project Corridor	3	3
RCRA Generators	Within Project Corridor	2	2

4.1. Environmental Cleanup Site Information System (ECSIS)

DEQ ECSIS listed sites include suspected and confirmed hazardous waste sites. DEQ lists a total of three ECSIS sites located within the project corridor, as set forth below. The following sites may pose a threat to the project, because according to DEQ on-line records, the on-site contamination has not been completely removed.

Site Number	Site Name	Site Location	DEQ ID#	Distance (Miles)	Regulatory Status
1	Former Mobil Oil Bulk Facility; Current Guthrie Motors	250 Redwood Highway	1823	Within Project Corridor	Suspect Site Requiring Further Investigation
11	Josephine County Fairgrounds	100 Redwood Avenue	1708	Within Project Corridor	Suspect Site Requiring Further Investigation
12	Allen Creek Property	1618 Allen Creek Road	3107	Within Project Corridor	No Further Action

4.2. Solid Waste Landfills

There were no DEQ permitted landfills listed within the project corridor.

4.3. Leaking Underground Storage Tanks (LUSTs)

DEQ lists 12 LUST sites within the project corridor, as set forth below. The following facilities are unlikely to impact the project, because they have been decommissioned and/or cleared by DEQ. However, the following facilities may still pose a threat to the project, because of possible unknown or undocumented contamination in nearby soils that may be present.

Site Number	Site Name	Site Location	DEQ ID#	Regulatory Status
2	Former Triple A RV Center	324 Redwood Highway	17-96-0077 Log#	Cleanup Completed
3	Former Don's Petroleum Inc; Current Card Paul S Automotive Repair	610 Redwood Highway	6044	Cleanup Completed
9	Former Star Concrete INC.	689 Union Avenue	4134	Cleanup Completed
13	Former Rogue River Rentals South; Current Redwood Nursery	1303 Redwood Avenue	9977	Cleanup Completed
14	Former Ed's Small Engine Repair; Current Danny's Automotive	1850 Redwood Avenue	3818	Cleanup Completed
15	PDQ Instant Auto Lube	1990 Redwood Avenue	2291	Cleanup Completed
16	Former Truck Stop; Current A Little Bit Off Nail and Hair Salon	2027 Redwood Avenue	8847	Cleanup Completed

The following facilities may impact the project, because the facilities have not been completely decommissioned and/or cleared by DEQ at the following sites.

Site Number	Site Name	Site Location	DEQ ID#	Regulatory Status
4	Former Colvin Oil Co – Grants Pass #1; Current Chevron Minimart & Moser Paving & Excavating	650 Redwood Highway	6617	Cleanup Started
6	Josephine County School Maintenance Shop & Laidlaw Transit INC.	126 Ringuette Street	4473	Cleanup Completed, Cleanup Started, Release Confirmed
7	Former Fairgrounds Texaco; Current Fairgrounds Towing & Shell	780 Union Avenue	9187	Cleanup Started
8	Josephine County Fairgrounds	1451 Fairgrounds Road	9163	Cleanup Completed, Cleanup Completed, Cleanup Started

4.4. Underground Storage Tanks (USTs)

There are seven listed DEQ permitted UST facilities within the project corridor, as set forth below.

Site Number	Site Name	Site Location	DEQ ID#	Tank Size, Content & Status
4	Former Colvin Oil Co – Grants Pass #1; Current Chevron Minimart & Moser Paving & Excavating	650 Redwood Highway	6617	(1) 12000 gal Gasoline (1) 12000 gal Diesel (2) 8000 gal Gasoline
7	Former Fairgrounds Texaco; Current Fairgrounds Towing & Shell	780 Union Avenue	9187	(1) 10000 gal Gasoline (1) 4000 gal Gasoline (1) 6000 gal Gasoline

4.5. Hazardous Substance Incidents

There were no OSFM hazardous substance incidents within or adjoining the project corridor found that would threaten project activities at this time.

4.6. Resource Conservation and Recovery Act (RCRA) Generators

RCRA generators are facilities that generate or store hazardous waste. DEQ lists two RCRA generators within the project corridor. These facilities may impact the project, because they either previously generated hazardous waste or are currently generating hazardous waste. The hazardous waste generator sites include the following:

Site Number	Site Name	Site Location	EPA ID#	Generator Status*
6	Josephine County School Maintenance Shop & Laidlaw Transit INC.	126 Ringuette Street	ORD987199296	CEG
10	Former Chrome City; Current Cartwright's Valley Meat Co.	1550 Nebraska	ORD987191921	LQG

* CEG or VQG – conditionally exempt generator (less than 220 pounds/month)

SQG – small quantity generator (220 – 2,200 pounds per month)

LQG – large quantity generator (more than 2,200 pounds per month)

TSD – treatment storage and disposal facility

5. Additional Research

Based on the information developed during the HazMat Corridor Study, ODOT HazMat recommended conducting additional research to better clarify existing and past site conditions for the ECSIS sites. The section below summarizes the results of this research.

5.1. DEQ File Review

ODOT HazMat conducted a review of DEQ files for select sites, which the Corridor Study identified as having the potential to impact the project corridor. Details of these file reviews are set forth below:

- Former Mobil Oil Bulk Facility ECSI; 250 Redwood highway
DEQ files indicate that four Above Ground Storage Tanks (ASTs) and one UST were removed from the property in the mid-1970s. According to DEQ, groundwater off-site has slightly elevated TPH and PAHs. DEQ suspects the likely source of these elevated levels is from the former petroleum bulk facility. DEQ is requiring further investigation of this site.
- Josephine County Fairgrounds ECSI; 100 Redwood Avenue
According to DEQ online records, in April 1995 3800 gallons of “Vultafoam” 1 (1-dichloro-2-fluoroethane) was released into a gravel parking lot on the Josephine County Fairgrounds property. DEQ notes that the release was due to vandal activity. In addition, DEQ confirmed that 500 tons of soil and gravel were removed from the site and were disposed of at the River Bend Landfill in McMinnville, OR. Furthermore, DEQ records explain that the liquid waste was sent to Burlington Environmental, and stormwater that accumulated in the excavation area in anticipation of confirmation sampling was discharged into Allen Creek under a Water Quality special permit. DEQ is requiring further investigation of this site.

- Allen Creek Property ECSI; 1618 Allen Creek Road

According to DEQ online records, this property was formerly used for lumber remanufacturing. Site facilities and activities included the following: (1) an office building (2) sawmill (3) yard office and scale shack (4) truck repair shop (5) chip/sawdust conveyor (6) a lumber storage area and (7) miscellaneous outbuildings. The primary concern for DEQ regarding this site included the following: wood treatment preservatives used on-site such as, Pentachlorophenol (PCP), Tetrachlorophenol (TCP) and petroleum hydrocarbons and the extent of remaining contamination in the site soils, surface water sediments and groundwater. DEQ confirms that there has not been off-site contamination into the underlying aquifer beneath this site. DEQ records indicate that the former top soil, which consists of wood fragments/bark, is located between two and four feet below ground surface (bgs), and that this layer is approximately one to three inches thick. In addition, this layer is covered by about three feet of imported fill, and there are clay sediments that lie beneath this bark layer. Finally, the clay sediments have helped confine the elevated PCP and TCP concentrations to the bark layer. The No Further Action determination issued by DEQ was only in regards for the wood treatment area of the property. DEQ has not issued a No Further Action for the rest of the property.

6. Conclusions

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