



Limited Environmental Site
Assessment for the OR-58:
Fix-It Corridor Culverts Project,
Lane and Klamath Counties,
Oregon

AUGUST 2021

PREPARED FOR

WSP USA

PREPARED BY

SWCA Environmental Consultants

**LIMITED ENVIRONMENTAL SITE ASSESSMENT FOR THE
OR-58: FIX-IT CORRIDOR CULVERTS PROJECT,
LANE AND KLAMATH COUNTIES, OREGON**

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1 INTRODUCTION

This report is a summary of a Limited Environmental Site Assessment (LESA) that SWCA Environmental Consultants (SWCA) completed for the Oregon State Highway 58 (OR-58): Fix-It Corridor Culverts Project (the Project). This type of desktop report is often used as an initial screen of a property to determine the potential for soil or groundwater contamination that could cause environmental liability in the Project Area. Because a LESA relies on many of the same historical resources as a Phase I Environmental Site Assessment (ESA), this type of report is an excellent and cost-effective tool appropriate for identifying potential contamination as part of a due diligence process for low-risk asset types to help minimize environmental risk.

The primary goal of this LESA is to identify areas that may be potential concerns due to the use, storage, or disposal of hazardous materials or petroleum products on or near the Project Area. These areas could have the potential to incur concerns for human health and the environment during the Project, and such locations could require further investigation to evaluate their potential impacts to planning and/or implementation of the proposed Project.

A LESA identifies specific areas of concern that could impact the Project and makes recommendations for further investigation activities, as appropriate. Because this is only a basic study, it does not follow the standards described in ASTM International (ASTM) Standard E1527-13 or E2247-16 (ASTM 2013, 2016), and it does not satisfy the due diligence requirements for all appropriate inquiries under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or provide the liability protections afforded by a Phase I ESA.

2 PROJECT AREA

The OR-58: Fix-It Corridor Culverts Project is a partnership between the Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA) and the Oregon Department of Transportation (ODOT). OR-58 is designated as an ODOT priority route. The purpose of the Project is to “harden” approximately 102 culverts along an approximately 82.24-mile segment of the OR-58 corridor between milepost (MP) 2.73 and MP 84.97 that are rated as being in “Poor” or “Critical” condition in ODOT’s Drainage Facility Management System. The Project proposes to repair or replace existing culverts with issues that range from rusted-out inverts, open joints, and general barrel damage to complete collapse of the structure. Figure 1 provides a general overview of culverts within the Project Area.

The goal of the Project is to manage the funds as efficiently as possible by targeting the most appropriate option for extending the useful life of each culvert and thereby stretching the funding to meet the need for correcting all poor or critical condition culverts in the corridor. Individual culvert evaluations will be conducted in the field with the goal of seeking first to repair the culvert if possible and then to replace the culvert if it is beyond reasonable repair. All 12-inch culverts identified for replacement will be upsized to a minimum of 18 inches. Other work is anticipated to include replacing end treatments, installing slip lining, repairing scour problems, repairing roadway embankment, and filling voids along culverts underneath pavement. Consideration should also be given for construction staging or bundling culverts together for separate construction contracts to meet freight mobility requirements for the corridor during construction.

Nearly all of the Project corridor is bounded by vacant undeveloped forestland or waterbodies. The exceptions are developed areas, primarily in the vicinities of Crescent Lake, Oakridge, and Dexter. The

area evaluated in this LESA is the proposed clearing limits at each culvert location, which is assumed to approximate the limits of disturbance. Typical clearing limits range from 200 to 2,000 square feet on either side of the highway.

3 METHODS

To achieve the objectives referenced above, SWCA reviewed federal, national, and state environmental sources and regulatory databases, including those from the following sources, in an effort to evaluate current and historic activities associated with the Project Area and adjoining properties and to identify potential areas of concern:

- U.S. Environmental Protection Agency (2021a–2021d)
- U.S. Geological Survey (2021)
- U.S. Department of Transportation (2021) National Pipeline Mapping System
- Pipeline Safety Trust (2021)
- Oregon Department of Environmental Quality (ODEQ) (2021a–c)
- Oregon Office of the State Fire Marshal (2021)
- Google Earth (2021)
- Nationwide Environmental Title Research, LLC (2021)

The databases searched included those specified by ASTM for Phase I ESAs, as well as several additional federal, national, and state databases. ASTM’s standard approximate minimum search distances were followed, as detailed in Table 1. SWCA supplemented database findings with a review of recent and historical aerial photographs from the 1940s to 2020, and historical topographic maps from the 1930s to 2020, in order to identify past operations or activities that may have caused the release of hazardous substances into the environment. SWCA reviewed these sources to a degree similar to that which would be required by the ASTM Standards for Phase I ESAs. Citations for all sources of data reviewed by SWCA are provided in Section 6 of this report.

Table 1. Approximate Minimum Search Distances

Record Sources	Approximate Minimum Search Distance (miles)
Federal Databases	
National Priorities List (NPL)	1.0
Delisted NPL	0.5
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) / CERCLIS No Further Remedial Action Planned (NFRAP) sites	0.5
Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) facilities	1.0
RCRA non-CORRACTS Treatment Storage and Disposal facilities	0.5
RCRA generators list	Project Area and adjoining
Institutional control / Engineering control registries	Project Area and adjoining
Emergency Response Notification System (ERNS)	Project Area and adjoining
State and Tribal Databases	

Record Sources	Approximate Minimum Search Distance (miles)
NPL	1.0
CERCLIS	0.5
Landfill and/or solid waste disposal site lists	0.5
Leaking storage tank lists	0.5
Registered storage tank lists	Project Area and adjoining
Institutional control / Engineering control registries	Project Area and adjoining
Voluntary cleanup sites	0.5
State and Tribal Brownfield sites	0.5

Source: ASTM (2013, 2016)

4 Results and Findings

The following presents the findings of SWCA’s review of federal, national, and state sources.

Environmental Cleanup Site Information Database

SWCA completed a search for all listed sites by county, which yielded 736 sites for Lane and Klamath Counties. SWCA eliminated sites with No Further Action status, sites in cities and large towns that are not near the Project Area, and 114 sites that were unmappable because they had both no city and no zip code. This left 138 sites remaining. Thirty-three of these sites could not be geocoded due to address deficiencies. After eliminating sites greater than 1 mile from culverts, and sites located less than 1 mile from culverts but across rivers or lakes, only four sites remained. Two of these sites are mapped 0.4 and 0.5 mile from the nearest culverts and are located hydrologically cross-gradient from culverts. Another is 750 feet away but is on the opposite side of a stream corridor and is thus hydrologically separated. The remaining one site is a landfill in Oakridge that is located 900 feet downgradient of one culvert and is hydrologically disconnected from another that is 0.3 mile away. No sites of concern were identified among the Environmental Cleanup Site Information listings (ODEQ 2021a).

DEQ Facility Profiler-Lite:

SWCA selected and compiled all sites within 1 mile of the Project Area and exported the sites as shapefiles. Next, SWCA eliminated those sites with No Further Action or “cleanup completed” status and those sites that are located outside of the ASTM search radii. The remaining sites were the following:

- One Solid Waste Information Facility Tracking site/contaminated site requiring further investigation. This facility is 750 feet from the nearest culvert but is on the opposite side of a stream corridor and is thus hydrologically separated.
- Two LUST sites with a status of “reported.” One is a heating oil tank on the opposite side of a stream corridor and downgradient. One is a gas station 900 feet away and cross-gradient in a separate stream drainage basin.
- Four additional contaminated sites requiring further investigation. One is a dry cleaner that is located 0.7 mile downgradient and in a separate drainage basin. Another is located 0.25 mile downstream in river alluvium, while the nearest culvert is situated above the first river terrace. One is a spill resulting from a crash and is located 0.25 mile downgradient from the nearest culvert. The last is the Bald Knob Land & Timber Company in Oakridge. The horizontal and vertical extent

of polychlorinated biphenyl (PCB)-contaminated soil has been defined at this site and is limited to the facility. No sites of concern were identified within the DEQ Facility Profiler-Lite listings (ODEQ 2021b).

Oregon Office of the State Fire Marshal:

SWCA sorted for all Hazardous Substance Incident listings along OR-58 between Interstate 5 and U.S. Highway 97 and identified 16 incidents. Nine of these incidents were not further researched because of their distance from and hydrological relationship with the nearest culverts (e.g., cross-gradient or downgradient location). One site had cleanup completed. Three incidents occurred in the early 1990s and were discounted due to the amount of time and dilution that would have occurred. Two were discounted because of the evaporative nature of the spilled material.

The remaining listing is for an unknown quantity of diesel fuel spilled at MP 58 in 1989 (Incident No. 890442). The listed MP is likely the nearest MP and not the actual location of the spill. Four culverts are located between MP 57.51 and 58.49. No further information was readily available for this spill. The steep slope and presumed steep groundwater gradient in this area would imply that only land in the immediate area (laterally) of the spill and the downgradient area would be affected by this spill.

U.S. Environmental Protection Agency:

SWCA's review of the U.S. Environmental Protection Agency databases identified several facilities in the vicinity of the Project Area. However, many of the listings are for innocuous programs such as air permits and stormwater permits. The rest are related to reporting or information-only databases and not actual contamination, and/or are for facilities located where they are not of consequence to the Project Area.

Pipeline Incidents:

SWCA's review of mapping from the National Pipeline Mapping System (U.S. Department of Transportation 2021) and the Pipeline Safety Trust (2021) did not map any pipelines or pipeline incidents or accidents within or in the vicinity of the Project Area.

5 CONCLUSIONS AND RECOMMENDATIONS

Based on the information described above, SWCA identified one concern within the Project Area: an unknown quantity of diesel fuel spilled at MP 58 in 1989 (Incident No. 890442). The listed MP is likely the nearest MP and not the actual location of the spill. The following four culverts are located between MP57.51 and 58.49: D028186 (MP 57.77), D028188 (MP 57.96), D028189 (MP 58.02), and D028190 (MP58.16). Of these four, D028186 and D028188 are included in the OR-58 Fit-It Corridor Culverts project. The remaining two will be constructed under a separate ODOT-led project at a later date. Culvert D028186 will be removed and replaced with a new culvert. Culvert D028188 will be cleaned, and will have minor ditch work at the inlet end, and riprap placement and a paved end slope at the outlet end. No further information was readily available for this spill. The steep slope and presumed steep groundwater gradient in this area would imply that only land in the immediate area (laterally) of the spill and the downgradient area would be affected by this spill.

SWCA recommends either 1) seeking additional documentation from the Office of the State Fire Marshall regarding this incident, or 2) proceeding with caution at these four culverts with a Health and Safety Plan that describes the actions to take should field crews encounter stained or odiferous soil.

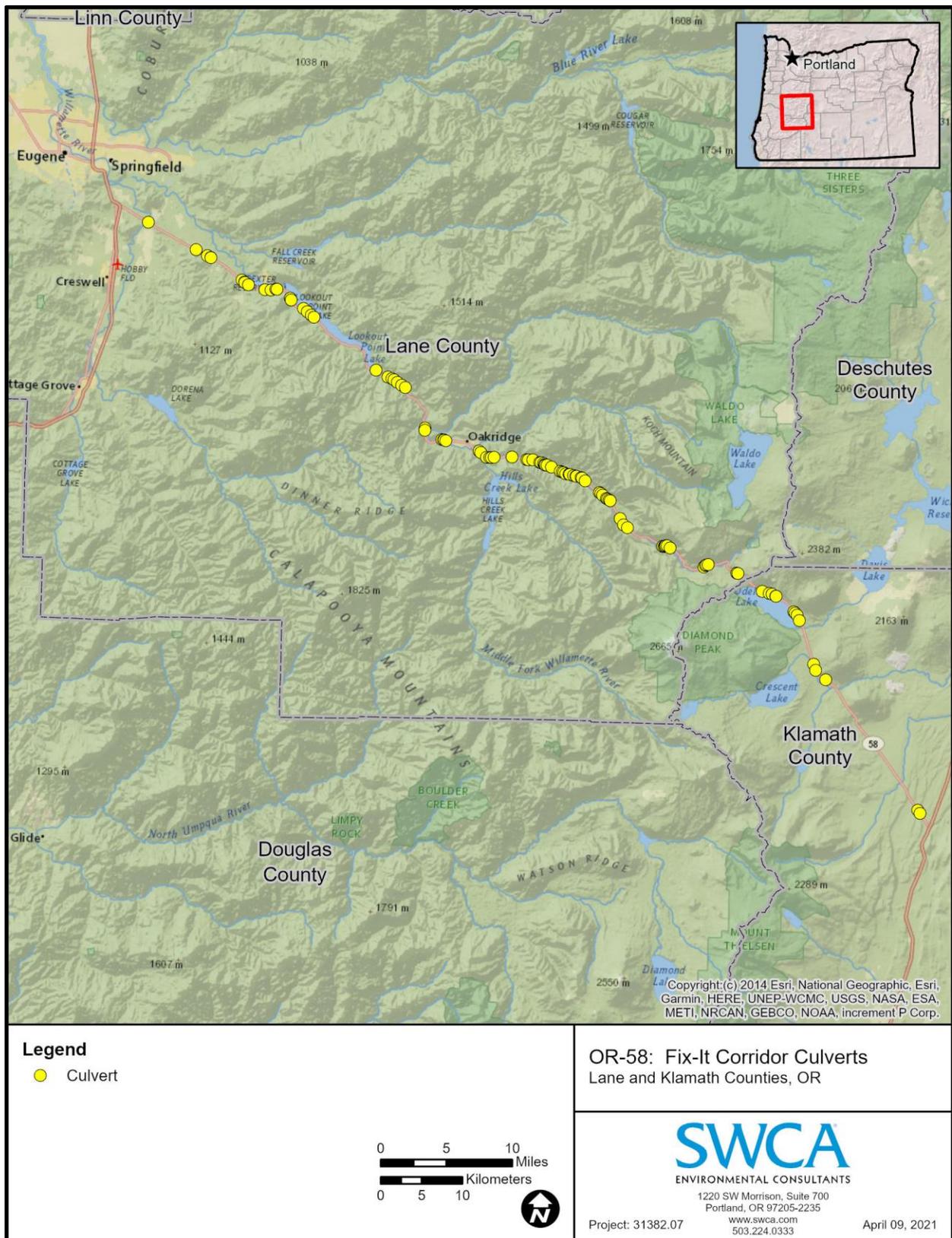


Figure 1. Culvert locations within the Project Area.

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