**Hazardous Materials**

**Corridor Study**

**Project Name**

**Key #**

**Hwy, MP**

**City, County**

**Date**

**Prepared by:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

***Oregon Department of Transportation***

Region 2 Technical Center 455 Airport Rd SE, Bldg A

 Geo-Environmental-Hydro Section Salem, OR 97301-5397

**Executive Summary**

*Limit to one page.*

ODOT Region # HazMat Group conducted a Hazardous Materials Corridor Study for the project \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Key # \_\_\_\_\_). The purpose of the assessment was to identify potential environmental conditions (sources of hazardous materials) that could impact Project construction.

*Choose Either This No Finding Option*

This Corridor Study did not identify any potential environmental conditions that would likely impact the proposed construction or right of way acquisitions within the Project Corridor. Unless the scope of the Project changes, no further investigation is recommended. If the scope of the Project changes to include additional excavation or right of way acquisition, please contact the Region HazMat Coordinator.

*Or List Potential Environmental Conditions Identified*

The Corridor Study identified the following potential environmental conditions that could impact the proposed construction or right of way acquisitions:

* *Three LUST sites, two active gasoline stations and a dry cleaners adjacent to the Project Corridor and could have contaminated soil and groundwater within the proposed construction areas*
* *Mercury vapor lamps and treated timbers are present and would require special handling if they require removal or replacement.*
* *etc.*

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

* Additional site specific research to complete a Phase 1 the meets the ASTM E1527-00 standard for # properties *and/or*
* A magnetometer and ground penetrating radar survey to determine the presence of suspected USTs at # locations *and/or*
* A subsurface investigation on or adjacent to each area of property acquisition or proposed excavation *and/or*
* A survey to determine the number and size of mercury vapor lamps / light ballasts / treated timbers / etc. that require removal and prepare contract special provisions for handling and disposal of these materials.
* etc.

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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# Introduction

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

**Project Name**

**Key #**

**Highway, MP**

**City, County**

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:

1. Acquisition of new right of way at \_\_\_\_\_\_\_\_\_\_\_\_
2. Excavation at \_\_\_\_\_\_\_\_\_\_\_\_ for \_\_\_\_\_\_\_\_\_\_\_\_
3. Installation of new subsurface utility lines between \_\_\_\_\_ and \_\_\_\_\_
4. Replacement of traffic signals and poles at \_\_\_\_\_\_\_\_
5. etc.....

# Corridor Description

The Project Corridor lies within Section(s) \_\_\_ Range \_\_(E/W), Township \_\_\_(N/S) (see Appendix A, Figure 1). This is primarily a residential / commercial / industrial / agricultural area.

## Physical Setting

According to the USGS 7.5’ \_\_\_\_\_\_\_ Quadrangle Map, the Project Corridor is at an elevation of approximately \_\_ to \_\_ feet above mean sea level. The local topography generally slopes down to the \_\_\_\_. The nearest surface water body is \_\_\_\_\_\_\_\_ located \_\_\_ miles to the \_\_\_\_.

***CHOOSE EITHER*** Based on the local topography and proximity of surface water bodies, local groundwater flow is presumed to be to the \_\_\_\_\_. However, local subsurface geologic and manmade features can affect groundwater flow; therefore, this groundwater flow interpretation is only an estimate based on surface observations. **OR** Groundwater flow direction could not be estimated due to the level nature of the area / presence of shallow bedrock / other reason. Review of water well records filed with the Oregon Water Resources Department (OWRD) indicate that depth to groundwater in the Project Corridor may be less than/greater than \_\_ feet below ground surface.

## Observations

ODOT HazMat conducted a site reconnaissance on Date. The reconnaissance consisted of systematically traversing the Corridor and viewing adjacent properties from roadways and public access areas. Photographs documenting reconnaissance observations are included in Appendix B. The AASHTO Initial Site Assessment (ISA) Checklist is provided in Appendix C.

Land use adjacent to the Corridor includes houses, 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/No |
| Aboveground Storage Tanks (ASTs)  | Yes/No |
| USTs, fill and vent pipes, fuel dispensers  | Yes/No |
| Other hazardous substance containers | Yes/No |
| Hazardous waste generation | Yes/No |
| Oil water separators, dry wells or floor/storm drains | Yes/No |
| Septic systems | Yes/No |
| Stains or odors | Yes/No |
| Stressed vegetation | Yes/No |
| Solid waste | Yes/No |
| Suspect asbestos-containing materials | Yes/No |
| Suspect lead-based paint  | Yes/No |
| Potential PCB-containing equipment | Yes/No |
| Florescent or mercury vapor light bulbs | Yes/No |
| Treated timbers | Yes/No |
| Water wells or monitoring wells | Yes/No |

Specific details regarding potential hazmat sources are provided below. The locations of these sites are shown on Corridor Maps in Appendix A.

*
*

# Historic Records

## Aerial Photographs

ODOT HazMat reviewed aerial photographs dated 19\_\_, 19\_\_, and 19\_\_ obtained from \_\_\_\_\_\_, to clarify past land uses, as described below. Copies of the photographs are included in Appendix D.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Address/Location** | **1960** | **1970** | **1980** | **1990** |
| NoName Hwy & SW 50th | Apparent service station | Apparent service station | Vacant | Residential |
| 1122 NE Anon St | Vacant | Vacant | Commercial building | Commercial building |
|  |  |  |  |  |

## Sanborn Fire Insurance Maps

ODOT HazMat reviewed Sanborn Fire Insurance Maps dated 19\_\_, 19\_\_, and 19\_\_ available from the Oregon State Library, to identify past land uses, as described below. Copies of the maps are included in Appendix D.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Address/Location** | **1960** | **1970** | **1980** | **1990** |
| NoName Hwy & SW 50th | Bill’s Service Station | Bill’s Service Station | Vacant | Residential |
| 1122 NE Anon St | Vacant | Vacant | Joe’s Dry Cleaners | Supermarket |
|  |  |  |  |  |

## Reverse Directories

ODOT HazMat reviewed reverse city directories, published by \_\_\_\_\_\_ and dated 19\_\_, 19\_\_, and 19\_\_ at \_\_\_\_\_\_, to identify past land uses, as described below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Address/Location** | **1960** | **1970** | **1980** | **1990** |
| NoName Hwy & SW 50th | Bill’s Service Station | Bill’s Service Station | Vacant | Residential |
| 1122 NE Anon St | Vacant | Vacant | Joe’s Dry Cleaners | Supermarket |
|  |  |  |  |  |

# Environmental Records Review

ODOT reviewed available State records for identified hazardous waste sites using an “Environmental FirstSearch Report” provided by FirstSearch Technology Corporation *OR* 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 E). 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** **(Miles)** | **Total Sites Found** | **On or Adjoining Project Corridor** |
| Environmental Cleanup Site Information System (ECSIS)  | 0.5 |  |  |
| Oregon Permitted Landfills | 0.25 |  |  |
| Leaking Underground Storage Tanks (LUSTs) | 0.25 |  |  |
| Registered Underground Storage Tanks (USTs)  | Site and Adjoining |  |  |
| OSFM Hazardous Substance Incidents | Site and Adjoining |  |  |
| RCRA Generators | Site and Adjoining |  |  |

## Environmental Cleanup Site Information System (ECSIS)

DEQ ECSIS listed sites include suspected and confirmed hazardous waste sites. DEQ lists \_\_\_ ECSIS sites within 0.5 miles of the Project Corridor, as set forth below. The \_\_\_\_\_ site is unlikely to impact the Project because \_\_\_\_\_\_. *OR* The \_\_\_\_ site may pose a threat to the Project because \_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site Name and Location** | **DEQ ID#** | **Distance (Miles)** | **Direction (N,S,W,E)** | **Regulatory Status** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Solid Waste Landfills

**There are \_\_\_\_\_\_\_ DEQ permitted landfills listed within** 0.25 miles **of the Project Corridor,** as set forth below**.** The \_\_\_\_\_ facility is unlikely to impact the Project because \_\_\_\_\_\_. *OR* The \_\_\_\_ facility may pose a threat to the Project because \_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Facility Name and Location** | **DEQ ID#** | **Distance (Miles)** | **Direction (N,S,W,E)** | **Permit Type/ Facility Status** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Leaking Underground Storage Tanks (LUSTs)

DEQ lists \_\_\_ LUST sites within 0.25 miles of the Project Corridor, as set forth below. The \_\_\_\_\_ facility is unlikely to impact the Project because \_\_\_\_\_\_.*OR* The \_\_\_\_ facility may pose a threat to the Project because \_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site Name and Location** | **DEQ ID#** | **Distance (Miles)** | **Direction (N,S,W,E)** | **Regulatory Status** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Underground Storage Tanks (USTs)

There are \_\_\_ DEQ permitted UST facilities adjoining or within the Project Corridor, as set forth below. The \_\_\_\_\_ facility is unlikely to impact the Project because \_\_\_\_\_\_.*OR* The \_\_\_\_ facility may pose a threat to the Project because \_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| **Facility Name and Location** | **DEQ ID#** | **Direction (N,S,W,E)** | **Tank Size, Content & Status** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Hazardous Substance Incidents

The OSFM hazardous substance incident database includes \_\_\_ incidents within or adjoining the Project Corridor. The \_\_\_\_\_ incident is unlikely to impact the Project because \_\_\_\_\_\_. *OR* The \_\_\_\_ release may pose a threat to the Project because \_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Incident Location** | **OSFM ID#** | **Distance (Miles)** | **Direction (N,S,W,E)** | **Release Description** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Resource Conservation and Recovery Act (RCRA) Generators

RCRA generators are facilities that generate or store hazardous waste. DEQ lists \_\_\_\_ RCRA generators adjoining or within the Project Corridor. These facilities are unlikely to impact / could impact the Project because \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name and Location** | **EPA ID#** | **Direction (N,S,W,E)** | **Generator Status\*** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

\* 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

# Additional Research [Optional]

Based on the information developed during the HazMat Corridor Study, ODOT HazMat recommended conducting additional research. - explain why and what research.... The sections below summarize the results of this research.

## Property Title Search

ODOT HazMat reviewed property ownership records for select properties at the \_\_\_\_\_ County registry of deeds. *or* ODOT HazMat contracted \_\_\_\_ to conduct a title search for select properties within the Project Corridor. The deed search identified the chain of ownership set forth below.

| **Property** | **Dates** | **Ownership** |
| --- | --- | --- |
| 22 Central Ave | November 1990 – Present | Jo’s Convenience Stores |
| 22 Central Ave | May 1950 – Nov 1990 | Bo’s gasoline |
| 24 Anywhere St | November 1979 – Present | Abe’s dry cleaners |
|  |  |  |
|  |  |  |
|  |  |  |

Based on the title records, past use of the \_\_\_\_\_ property may pose a threat of release to the Project Corridor because it was owned by \_\_\_\_\_\_\_. *or* The title search did not identify any additional sources of contamination that are likely to impact the Project Corridor.

## Municipal Permits

ODOT HazMat reviewed building permits [or other records] for select properties at the \_\_\_\_\_\_ Municipal [or County] offices. The permits indicated the following significant property uses as set forth below:

| **Property** | **Dates** | **Permit Information** |
| --- | --- | --- |
| 22 Central Ave | 5/2/93 | UST installation |
| 24 Anywhere St | 4/23/72 | Septic system repair |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Based on the building permits, past use of the \_\_\_\_\_ property may pose a threat of release to the Project Corridor because \_\_\_\_\_\_\_. *or* the building permit review did not identify any additional sources of contamination that are likely to impact the Project Corridor.

## 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:

* Jo’s Convenience Store LUST – DEQ files indicate that \_\_\_\_\_ removed four gasoline and diesel USTs for the southwest portion of the property in September 1991. Subsequent sampling results indicate that soil contamination is limited to the vicinity of the USTs and groundwater flow is away from the highway. Therefore, this site is unlikely to impact the Project Corridor.
* Abe’s Dry Cleaners ECSI – provide summary of findings and a conclusion (sampling required? or no impact likely?).

## Other Research

Use similar format to above sections....

# Conclusions

ODOT HazMat conducted this Hazardous Materials Corridor Study for the Project **\_\_\_\_\_\_\_. *CHOOSE EITHER*** The assessment has revealed no evidence of potential environmental conditions in connection with the proposed construction activities and/or property acquisitions. Therefore, no further investigation is needed unless the nature of the Project changes to include additional excavation or property acquisition. In that event, please contact the Region HazMat Coordinator. ***OR*** The following land uses and/or documented releases could impact the proposed Project:

* According to a 1921 Sanborn map, a former service station was located at \_\_\_\_\_. USTs and or petroleum contamination may remain within the project corridor.
* Solvent contamination from the ECSI site located at \_\_\_\_\_ may impact groundwater beneath the Project Corridor
* etc.....

Based on these findings, ODOT HazMat recommends conducting additional site work including site specific research and subsurface sampling, at or adjacent to the locations listed above. The results of this additional HazMat work will be included in a Level 2 Preliminary Site Investigation (PSI) report. A Level 2 scope of work is included in Appendix F.

# Limitations

This assessment was conducted according to AASHTO criteria for a Corridor Study and does not represent an American Society for Testing and Materials (ASTM) Phase 1. It is for internal use only and may not be relied upon by any other entity without written permission from an authorized ODOT representative. This report is presented as current at the time of publication; it does not warranty against changes in land use or environmental conditions subsequent to its publication.

Performance of a Corridor Study is intended to reduce but not eliminate uncertainty regarding the existence of environmental conditions. The AASHTO practice is intended primarily as an approach to identifying potential sources of contamination that could impact a project. Based on the AASHTO guide, this Corridor Study constitutes appropriate inquiry into current and past uses of properties within the Project Corridor and is consistent with good commercial or customary practice. However, no environmental assessment can wholly eliminate uncertainty regarding the potential for environmental conditions in connection with a Project.

# Signatures

Report preparation conducted by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

Technical review conducted by \_\_\_\_\_\_\_ \_\_\_\_\_, R.G.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

Corporate review conducted by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

Registered Geologist Stamp:

**Appendix A**

**Figures**

**Appendix B**

**Site Photographs**

**Appendix C**

**ISA Checklist**

INITIAL SITE ASSESSMENT (ISA) CHECKLIST

**Project Information**

|  |  |  |  |
| --- | --- | --- | --- |
| District:  | County: | Route: | Milepost: |
| Description: |
| Does the project have potential hazardous waste involvement? |
|  |

**Screening Criteria**

|  |  |  |
| --- | --- | --- |
| 1. Project Features: New R/W? | Excavation? | Relocate Utilities? |
| 2. Land Use History and Development Setting (urban/rural; industrial, commercial, agricultural, housing other –list) |
|  Current land uses: Previous land uses: Adjacent land uses: |
| 3. In-house record review |
| 4. Any known hazardous waste sites in vicinity? If yes, identify and explain. |
|  |
|  |

**Optional Records**

|  |  |  |  |
| --- | --- | --- | --- |
| County Assessor | Fire Dept | Sanborn Maps | Other |

**Take photos of sites or sketch**

**Visual Inspection**

|  |  |  |
| --- | --- | --- |
| Storage Structures: | Contamination: | Potential asbestos containing materials: |
| Underground tanks | Surface Staining | Buildings |
| Aboveground tanks | Oil sheen | Sprayed-on fireproofing |
| Sumps | Odors | Pipe wrap |
| Ponds | Stress vegetation | Floor tiles |
| Transformers | Other | Siding |
| Other |  | Ceiling tiles |
|  |  | Acoustical plaster |
| Sites | Sites | Sites |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| **Comments:** | **Conducted by:** |
|  |

**Appendix D**

**Historic Data**

**Appendix E**

**Environmental Database Reports**

**Appendix F**

**Level 2 Scope of Work**