Phase I Environmental Site Assessment 1021 and 1037 Baseline Street Property, Cornelius, OR

Prepared for:

U.S. Environmental Protection Agency, Region 10
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EPA Contract No. 68HERH19D0017 (REPA)

Signature and Environmental Professional Statement

Phase I Environmental Site Assessment
1021 and 1037 Baseline Street – Cornelius, OR

I declare that, to the best of our professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Brook McKeown

Digitally signed by Brook McKeown
Date: 2024.11.19 12:29:22 -05'00'

Brook McKeown – ERG Project Manager | Date

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Acronyms and Abbreviations

ACBM	asbestos-containing building materials
AIRS	Aeromatic Information Retrieval System
AMSD	approximate minimum search distance
AOC	Area of Concern
AST	aboveground storage tank
ASTM	ASTM International
AUL	Activity/Use Limitations
bgs	below ground surface
BTEXN	benzene, toluene, ethylbenzene, xylene, naphthalene
CFR	Code of Federal Regulations
COC	constituent of concern
DRO	diesel range organics
DWW	Drinking Water Watch
ECHO	Enforcement and Compliance History Online
EDR	Environmental Data Resources, Inc.
ENW	Evren Northwest, Inc.
ERG	Eastern Research Group
ESCI	Environmental Cleanup Site Information
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FINDS	Facility Index System
FOIA	Freedom of Information Act
FEMA	Federal Emergency Management Agency
FRS	Facility Registry Service
FWS	U.S. Fish and Wildlife Service
GIS	geographic information system
GRO	gasoline range organics
HOT	heating oil tank
ISM	Incremental Sampling Methodology
K&S	K&S Environmental Inc.
LAST	leaking aboveground storage tank
LUCIS	Land Use Control Information System
LUST	leaking underground storage tank
mg/kg	milligram per kilogram
MRL	method reporting limit
NPDES	National Pollutant Discharge Elimination System
NFA	no further action
NWI	National Wetlands Inventory

ODEQ	Oregon Department of Environmental Quality
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
ppb	parts per billion
ppm	parts per million
RBC	risk-based concentration
RBDM	risk-based decision making
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RGA	Recovered Government Archive
RRO	residual range organics
SDS	Safety Data Sheet
SWA	Source Water Assessment
TBA	Targeted Brownfields Assessment
TPH	total petroleum hydrocarbons
TCOC	The City of Cornelius
ug/kg	microgram per kilogram
ug/L	microgram per liter
ug/m^3	microgram per cubic meter
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	volatile organic compounds
VEC	vapor encroachment condition
VES	vapor encroachment screen
WBAG	Water Body Assessment Guidance
WLIS	Oregon Well Log Information System

Executive Summary

The U.S. Environmental Protection Agency (EPA) Region 10 Targeted Brownfields Assessment Program engaged Eastern Research Group, Inc. (ERG) to conduct a Targeted Brownfields Assessment (TBA) of the 1021 and 1037 Baseline Street Property (the "TBA Site", the "Site" or the "subject property") located in Cornelius, Oregon, at the request of the City of Cornelius (TCOC, or the Applicant) in support of the potential purchase and redevelopment of the subject property. As part of the TBA, ERG conducted a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-21 of the TBA site to identify the presence of recognized environmental conditions (RECs), as defined in Section 1.1.

The subject property is located in the central portion of Cornelius, Oregon, and consists of two parcels totaling 0.53 acres (Figures 1 and 2). The TBA site is currently owned by Islam El Masry. The subject property is currently unused and vacant. The subject property currently contains three out-of-use fueling islands and a kiosk underneath a canopy, a bathroom/office building on the southwestern portion of the property, as well five inactive underground storage tanks (USTs) and two decommissioned USTs located on the western portion of the site. Additional description of the current uses of each of the subject property parcels is provided in Section 2.2. The subject property was first developed by at least 1912 with a rail spur associated with the Southern Pacific Railroad and has been used commercially as a fueling station from 1953 until 2007. Since 2007, the site has been out of use.

The assessment identified the following known or suspected RECs:

- **Known Releases from On-site USTs**: The Site has seven known USTs on-site (installation dates and current status provided in parenthesis): two 3,000-gallon diesel tanks (1957, decommissioned in-place), one 4,000-gallon gasoline tank (1981, inactive), one 5,000-gallon gasoline tank (1981, inactive), one 8,000-gallon gasoline tank (1983, inactive), one 3,000-gallon diesel tank (1985, inactive), and one 10,000-gallon gasoline tank (1985, inactive). In 2006, a release of petroleum products was identified and investigated in the vicinity of the 5,000-gallon UST. Subsequent sampling events were conducted sporadically from 2007 to 2018 for subsurface soil and groundwater on the western portion of the site, which identified exceedances of Oregon Department of Environmental Quality (ODEQ) Risk-based Concentrations (RBCs) for gasoline constituents of concern (COCs). In 2019, two additional site assessments were conducted to delineate impacts to soil and groundwater and vapor intrusion concerns and summarize all historical environmental sampling data at the site. Although exceedances for several ODEQ RBCs are identified for historical environmental sampling data, complete exposure pathways for the site are for direct exposure to soil and groundwater for construction or excavation workers and vapor intrusion into buildings.

  Exceedances of ODEQ's 2018 groundwater RBC for direct contact for excavation/construction workers were identified in the 2016-2018 groundwater sampling data for TPH-GRO, benzene and naphthalene. Additionally, The July 2019 soil gas result for TPH-GRO collected at SG-06, just west of the center pump island at the Site, was 50,398.2 ug/m^3, which exceeds ODEQ's 2024 vapor intrusion RBC for commercial use properties. Based on the known exceedances of ODEQ RBCs for these complete exposure pathways, this is a REC.

- **On-Site USTs without Proper Closure Documentation.** The five USTs installed at the site between 1981 and 1985, ranging in size from 3,000 gallons to 10,000 gallons, have not been in

use since 2007 and have not been properly decommissioned and granted regulatory closure. The contents and conditions of these five USTs and associated piping are unknown. Lack of administrative closure could prevent regulatory closure of the site. Although the site has been significantly characterized from previous environmental assessments, as the current conditions and contents of the tanks are unknown, it cannot be ruled out that releases from these tanks could be continuing to impact the subsurface of the Site. Based on the lack of closure of the on-site USTs, this is a REC.

- **Historic Site Operations**: A rail spur was located on the property from at least 1912 until the early 1950s as part of the Southern Pacific Railroad that ran west to east through the parcel. Rail spurs represent environmental concerns to the potential of historical application or transport of hazardous substances of petroleum products. Materials containing certain toxic metals, VOCs and PAHs have historically been used to construct rail beds and rail spurs. The Site has been significantly characterized for COCs related to gasoline and diesel releases, including VOCs and PAHs, but metals testing has been limited. Contamination resulting from activities in the vicinity of the former rail spur would likely be confined to near subsurface soils beneath the current asphalt paving. Due to the potential for use of hazardous substances in the construction of rail spurs, the historic presence of a rail spur on the Site is a REC.

In addition, this assessment has identified the following historical recognized environmental condition (HREC) in connection with the subject property:

- **Known Release from USTs with Regulatory Closure.** A release of petroleum products was identified at the site from USTs associated with gas station operations in the early 1990s. 24 tons of contaminated soil were reportedly removed from the Site in 1996 and the site received regulatory closure in the form of an NFA letter from ODEQ in 1996. Since the site received regulatory closure for this matter without site use or activity restrictions, this is an HREC.

This assessment has also identified the following area of concern, which does not meet the definition of a REC, but may still be a relevant finding the in the context of the TBA process:

- **Hazardous Building Materials.** No suspect or presumed asbestos containing building materials (ACBM) was observed during the site inspection. It is unclear if any suspect or presumed ACBM was in the area above the drop ceiling in the kiosk area, as this area was not observed during the site inspection. Since the site structures were constructed in 1997, after the phasing out of ACBMs in the 1980s, it is assumed that ACBMs were not used in building construction. However, it is noted that ODEQ does not have an exemption date for the requirement to conduct an asbestos survey prior to renovation or demolition activities, and prior to such activities, an asbestos survey by an accredited inspector may be required.

Recommendations

Based upon available information collected from interviews, records reviews, and the site reconnaissance, ERG recommends a Limited Phase II assessment be conducted to include the following:

- Collection of additional groundwater and soil vapor samples in the western portion of the Site to evaluate whether exceedances of ODEQ's RBCs for the exposure pathways identified remain at the site.

- Soil sampling may also be included as part of this effort to evaluate current subsurface soil and surface soil conditions due to the potential for continued releases from USTs without closure documentation and metals contamination from the historic on-site rail spur, respectively.

Additionally, based on the findings and conclusion summarized above, ERG recommends the following:

- Abandonment of the onsite monitoring wells and suspected partially decommissioned wells installed for previous environmental assessments and identified during site reconnaissance prior to redevelopment of the TBA Site.
- Proper closure of the five USTs remaining at the site that have not been decommissioned, in accordance with State and local requirements. Removal of buried piping and fuel pumps associated with the fuel distribution system at the Site.
- Development of a Contaminated Media Management Plan to ensure proper handling and management of petroleum-impacted subsurface soils and groundwater during subsurface work to limit exposure risks to future excavation or construction workers at the Site.
- Completion of a hazardous building material survey (HBMS) of the site prior to demolition of site structures to determine whether asbestos containing building materials are present, in accordance with Oregon Administrative Rule 340-248-0127(1).

1. Introduction

1.1 Purpose and Involved Parties

Eastern Research Group, Inc. (ERG) was contracted by U.S. Environmental Protection Agency (EPA) on behalf of The City of Cornelius (TCOC or the Applicant) to conduct a Targeted Brownfields Assessment (TBA) of the 1021 and 1037 Baseline Street Site (the "TBA Site", the "Site" or the "subject property") located in Cornelius, Oregon. EPA's TBA program helps states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfield sites. This program supplements other efforts under the Brownfields Program to promote the cleanup and redevelopment of brownfield sites. This report consists of a Phase I Environmental Site Assessment (ESA) that has been completed in conformance with ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E1527-21* (ASTM 2021).

ERG was contracted to complete this work under EPA Contract No. 68HERH19D0017, Task Order 16.

The purpose of the Phase I assessment was to identify any recognized environmental concerns (RECs), historical recognized environmental conditions (HRECs) or other areas of concern that may pose a risk to human health or the environment based on potential future re-use of the property.

> A REC, as defined by the ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* E1527-21, is: "1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; 2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or 3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that post a material threat of a future release to the environment."
>
> An HREC as defined by ASTM E1527-21 is: "a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of

the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitation). An HREC is not a REC".

An area of concern (AOC) does not meet the definition of a REC but may still be a relevant finding in the context of the TBA process.

1.2 Scope of the Assessment

ERG completed the following tasks in general accordance with ASTM Standard 1527-21 during the Phase I ESA of the subject property:

- A visit to the subject property by Sedrek Kovar of ERG on August 1, 2024, to complete the Phase I ESA site reconnaissance. Mr. Kovar observed exterior and interior features of the subject property and current uses and conditions of the subject property and the adjoining properties. Mr. Kovar met with representatives of TCOC, the TBA Applicant, during the site walkthrough to gain access to site structures. Photographs were taken during the site visit and are presented in Appendix A. Mr. Kovar also interviewed the current owner of the subject property, Islam El Masry.

- Review of records and/or interviews with regulatory agencies, local government representatives, and other individuals knowledgeable about the subject property regarding current and former operations.

- A review of information contained in federal and state environmental databases, historical sources, and physical setting sources, including the following:

    - A radius report prepared by Environmental Data Resources, Inc. (EDR; see Appendix B), which presents the results of the searches of federal and state databases for the subject property as well as properties near the Site. The EDR radius report also includes geologic, hydrogeologic and hydrologic sources, including the current USGS 7.5-minute topographic map for the site and historical sources (where available) such as aerial photographs, topographic maps, city directories, and Sanborn maps.

    - The EPA's Facility Registry Service and ECHO databases and Oregon Department of Environmental Quality's (ODEQ's) Environmental Cleanup Site Information (ESCI) Database.

- A review of documents provided to ERG by the Applicant or other sources related to the subject property. The Oregon Department of Environmental Quality (ODEQ) provided several historic documents and reports. The most relevant reports that pertain to the Site are listed below; these and other select reports are discussed further in Section 3.4 and included as attachments in Appendix C:

    - TBA Application, completed by TCOC.

    - Consent for Access to Property, completed by the property owner, Islam El Masry, containing the legal descriptions for the two parcels included in the TBA.

- "*No Further Action (NFA) Determination for Dwight Estby, 874 SW Baseline Road, Hillsboro, OR 97123*", written by ODEQ, dated May 15, 1996 (the "1996 NFA Determination").
- "*Site Assessment Report for Dwight Estby, 1021 Baseline Street, Cornelius, OR 97113*", prepared by K&S Environmental Inc. (K&S), dated August 10, 2006 (the "2006 Site Assessment Report").
- "*Subsurface Investigation Report for Dwight Estby, 1021 Baseline Street, Cornelius, OR 97113*", prepared by K&S, dated October 11, 2007 (the "2007 Subsurface Investigation Report").
- "*Subsurface Investigation Report for Dwight Estby, 1021 Baseline Street, Cornelius, OR 97113*", prepared by K&S, dated April 2, 2008 (the "2008 Subsurface Investigation Report").
- "*Monitoring Well Installation and Subsurface Sampling Report for ODEQ, 2020 SW 4th Avenue, Suite 100, Portland OR 97201*, prepared by K&S, dated August 8, 2008 (the "2008 Well Installation Report").
- "*Quarterly Sampling Event for October 29, 2008, for ODEQ, 2020 SW 4th Avenue, Suite 100, Portland OR 97201*, prepared by K&S, dated December 5, 2008, which was provided by ODEQ (the "2008 Quarterly Monitoring Report).
- "*Compliance Monitoring Report for August 2009 for ODEQ, 2020 SW 4th Avenue, Suite 100, Portland OR 97201*, prepared by K&S, dated October 12, 2009, which was provided by ODEQ (the "2009 Compliance Monitoring Report).
- "*2nd Warning Letter for M&G Collections LLC, 1515 SW 5th Avenue Suite 600, Portland OR 97201-5492*, written by ODEQ, dated February 8, 2011, (the "2011 2nd Warning Letter).
- "*Final Order for M&G Collections LLC, 1515 SW 5th Avenue Suite 600, Portland OR 97201-5492*, written by ODEQ, dated January 17, 2012, (the "2012 Final Order).
- "*Groundwater Sampling Results (Dec. 2016) for M&G Collections LLC, 1515 SW 5th Avenue Suite 600, Portland OR 97201-5492*, prepared by Alpha Environmental (Alpha), dated January 12, 2017, (the "2017 Groundwater Sampling Report).
- "*October 2018 Work Plan: Reconnaissance Groundwater and Soil Gas Characterization for Islam El Masry, 418 SW 4th Avenue Unit 306, Portland OR 97204*, prepared by Evren Northwest, Inc. (ENW), dated November 11, 2018 (the "October 2018 Work Plan").
- "*December 2018 Groundwater Monitoring Report for Islam El Masry, 418 SW 4th Avenue Unit 306, Portland OR 97204*, prepared by ENW, dated January 7, 2019 (the "2019 Groundwater Monitoring Report").
- "*Focused Site Investigation for Islam El Masry, 418 SW 4th Avenue Unit 306, Portland OR 97204*, prepared by ENW, dated May 12, 2019 (the "2019 Focused Site Investigation").
- "*Second Round Soil Gas Assessment for Islam El Masry, 418 SW 4th Avenue Unit 306, Portland OR 97204*, prepared by ENW, dated August 14, 2019 (the "2019 Second Round Soil Gas Assessment").

1.3 Significant Assumptions

There is a possibility that even with the proper application of these methodologies, there may exist on the subject property conditions that could not be identified within the scope of the assessment, or

which were not reasonably identifiable and/or ascertainable from the available information. ERG believes that the information obtained from the regulatory file review and the interviews concerning the subject property are reliable. However, ERG cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all-inclusive or comprehensive results, but rather to provide the Client with information relating to the subject property.

1.4 Reliance and Limitations

The Phase I Report has been prepared solely for the use and benefit of EPA and the Applicant. Any use of this document or information herein by persons or entities other than EPA and the Applicant without express written consent of ERG will be at the sole risk and liability of said person or entity.

No deviations from the recommended scope of ASTM Standard E 1527-21 were performed as part of this Phase I ESA. Limitations and exceptions to ASTM Standard E1527-21 noted during the course of the Phase I ESA are discussed below.

- Access Limitations – The roofs of the structures were not accessed during the site reconnaissance visit, nor was the space above the drop ceilings of the kiosk area inspected.
- Physical Obstructions to Observations - There were large, thorny bushes around the outside of the bathroom shed and on top of the adjacent UST. There were some pipes on the side of the bathroom shed that were unable to be inspected due to dense vegetation.
- Outstanding Information Requests – None.
- Historical Data Resource Failure – None.

Where required, the documents listed in Appendices A through D were used as reference material for completing the Phase I ESA. Some of the information presented in this report was provided through existing documents and interviews. Although attempts were made, whenever possible, to obtain a minimum of two confirmatory sources of information, in certain instances ERG has been required to assume that the information provided is accurate.

The conclusions presented in this report represent ERG's best professional judgment based upon the information available and conditions existing as of the date of this report. In performing this work, ERG relies upon publicly available information, information provided by EPA and the Applicant, and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to ERG was accurate and complete. This review is not intended as legal advice, nor is it an exhaustive review of site conditions. ERG makes no representations or warranties, expressed or implied, about the conditions of the site. Due to the nature of the investigation and the data available, ERG cannot warrant against undiscovered environmental liabilities that are beyond the scope of a Phase I ESA.

The information in this report was accurate to the best of ERG's knowledge on August 1, 2024 (the date of the subject property inspection). Should additional information become available that differs significantly from our understanding of conditions presented in this report, we request that this information be brought to our attention so that we may reassess the conclusions provided herein.

2. Subject Property Description

2.1 Subject Property Setting

The subject property is located within the City of Cornelius in northwest Oregon (see Figure 1). Cornelius, Oregon, is located 20 miles west of Portland, Oregon, and 40 miles north of Salem, Oregon. The subject property's general central point is located at 45.51986 degrees North Latitude and -123.0592 degrees West Longitude within the northeastern quarter of Section 4 of Township 1 South, Range 3 West, Willamette Principal Meridian.

The subject property totals 0.53 acres and consists of two parcels owned by Islam El Masry. Additional description of the individual parcels is provided below and shown in Figure 2:

- Parcel ID R407081: This parcel has a total of 0.33 acres, is located at 1021 Baseline St.., and has a legal description of: A parcel of land in the Northeast one-quarter of Section 4, Township 1 South, Range 3 West of the Willamette Meridian, in the City of Cornelius, County of Washington and State of Oregon, described as follows: Beginning at the intersection of the South line of Baseline Street (Fourth Street on the duly filed plat of the City of Cornelius) with the West line of South Main Avenue (Main Street on said plat of the City of Cornelius); and running thence South along said West line 95.0 feet to a point which is 30 feet distant Northerly measured at right angles from the center line of the Southern Pacific Company's main track; thence West on a line parallel with and 95.0 feet distant from the South line of said Baseline Street, said line being also parallel with and 30.0 feet distance Northerly, measured at right angles, from the center line of said main tract a distance of 150.0 feet to a point 100.0 feet East of the East line of South 10th Avenue (Pine Street on said plat of the City of Cornelius); thence North parallel with said East line 95.0 feet to the South line of said Baseline Street; thence East 150.0 feet to the place of beginning.
- Parcel ID R407090. This parcel has a total of 0.20 acres, is located at 1021 Baseline St., and has a legal description of: A parcel of land in the Northeast one-quarter of Section 4, Township 1 South, Range 3 West of the Willamette Meridian, in the City of Cornelius, County of Washington and State of Oregon, described as follows: Beginning at the intersection of the South line of Baseline Street (Fourth Street on the duly filed plat of the City of Cornelius) with the East line of South 10th Avenue (Pine Street on said plat of the City of Cornelius); thence East along the South line of said Baseline Street 100.0 feet; thence South parallel with the East line of said South 10th Avenue 95.0 feet to a point which is 30.0 feet distant Northerly, measured at right angles from the center line of the % Southern Pacific Company's main track; thence West on a line parallel with and 95.0 feet Southerly, measured at right angles from the South line of said Baseline Street, said line also being parallel with and 30.0 feet distant Northerly, measured at right angles from the center line of said main track 100.0 feet to the East line of said South 10th Avenue; thence North along the East line of said South 10th Avenue 95.0 feet to the place of beginning. EXCEPTING THEREFROM: that portion for Public Right-of-Way Recorded February 16, 2017 as Recording No. 2017-013959.

The subject property is accessible from South 11th Street, which defines the eastern border of the property. E Baseline Street defines the property's northern border, while South 10th Avenue defines the property's western border (Figure 2). The southern boundary of the property is defined by a railroad easement that separates the property from a residential neighborhood. Based on a 2018 City of Cornelius zoning map provided by the Washington County Building Department, the area near the

subject property is mixed zoning, consisting of commercial, general employment, civic, single-family and multi-family home. The zoning map is included in Appendix C.

The subject property currently contains three out-of-use fueling islands underneath a canopy. There is a kiosk underneath the canopy area and a building on the southwestern portion of the property that contains a bathroom and office. The subject property is generally covered with asphalt, with grass and vegetated areas along the southern property boundary. Additional description of the current uses of each of the subject property parcels is provided in Section 2.2.

Additional physical setting information is provided below:

- Elevation: The elevation ranges from approximately 173 feet at the northwestern site boundary to 175 feet at the northeastern site boundary (USGS topographic map, Google Earth).
- Topography: The topography on the subject property and surrounding the site is generally flat with, with elevations generally sloping to the southwest.
- Nearest Surface Water Body: The nearest surface water bodies are Council Creek, located approximately 0.5 miles north of the subject property and the Tualatin River, located approximately 0.6 miles to the southeast of the subject property.
- Flood Plain: The Federal Emergency Management Agency Flood Map Service Center designates the property as Zone X, an area of minimal flooding (FEMA 1984). Figure 3 shows the 1984 Flood Insurance Rate map for the City of Cornelius.
- Wetlands: There are no federally designated wetlands on-site, or on adjacent properties (National Wetlands Inventory [NWI], 2024). Figure 4 shows the NWI map of the subject property and approximately one-half mile radius.
- Depth to Groundwater: Based on prior assessments and groundwater sampling events, depth to groundwater ranges from about 4 to 12 feet below ground surface (bgs) throughout the year.
- Presumed Direction of Groundwater Flow: Based on groundwater gauging data in prior assessments, direction of flow is calculated to flow to the south.
- Geology: The Site is situated within the Tualatin Valley, for which the Tualatin River is the principal water drainage. The valley is a structural depression between the coast and surrounding mountains, the sediments of which are comprised of three geologic units: Holocene alluvium, Missoula Flood deposits, and Hillsboro Formation. Alluvium deposits are found within the channels and floodplains of the Tualatin River from the end of the Pleistocene. The fine-grained Missoula Flood deposits were emplaced by catastrophic floods from the late Pleistocene era flowing through the Columbia Gorge and overlie the Hillsboro Formation. The Hillsboro Formation consists of variegated clay and silt layers estimated to extend 800-900 feet towards basalt bedrock. Boring logs for groundwater wells installed on the site indicate that the subsurface at the subject property consists of gravel from 3 inches to 16 inches bgs, brown silty clay from 6 inches to 10 feet bgs and gray silty clay from 5 feet to 15 feet bgs.
- On-site Wells and Nearest Groundwater Supply Wells: The subject property is served by public water and does not utilize a groundwater supply well. The Oregon Water Resources Department's Well Log Information System (WLIS) lists several geotechnical wells that were installed in 2007 and 2008 at the site to a depth of 15 feet bgs. Two of these monitoring wells were seen at the time of the Site visit, although the 2019 Focused Site Investigation notes that three groundwater wells remain on-site. The two wells observed during the site

inspection were flush with the ground and appeared to be in good condition. A public water supply well was previously located adjacent to the northwest of the site, which is now closed. There are no current public water supply wells located within one mile of the site. The WLIS database identifies that the closest domestic supply well is approximately 660 feet to the southwest on the corner of South 9th Avenue and S Beech Street and was drilled to a depth of 95 feet.

2.2 Current Use of Subject Property

The subject property is currently unused. The Site has five inactive USTs, two decommissioned USTs, a service kiosk underneath the fueling canopy, and a building that has a small bathroom and office space. As of the time of this report, the owner has covered all buildings in plywood due to concerns of vandalism. Three out-of-use fuel islands are present and several of the fuel pumps have been broken into and remain open and damaged.

2.3 Current Use of Subject Property

The general area surrounding the subject property contains a mix of commercial and residential uses. The subject property is bordered on the west by South 10th Avenue. West of South 10th Avenue lies an expansive stretch of undeveloped land resembling a gravel parking area. The subject property is bordered on the south by a rail line. A neighborhood beginning at South Alpine Street lies south of the railroad and consists primarily of single-family homes. East of the subject property is vacant land, beyond which is Veteran Memorial Park between North 12th and North 13th Avenue. North of the property is a small shopping center containing various commercial businesses and restaurants such as Clint Vandehey Upholstery & Carpet, Nails Plus Barber, The Jungle Room Bar, Leo's Lair, and an Alcoholics Anonymous Chapter.

3. Records Review

3.1 Standard Environmental Record Resources

ERG contracted EDR to conduct a search of Federal and State databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-21 are summarized in the following table. Detailed information for sites identified within the AMSDs is provided below. Copies of the EDR research data and a description of the databases are included in Appendix B of this report.

In addition to the EDR database report, the following federal and state databases were searched for information pertaining to the subject property and surrounding properties:

- ERG used EPA's ECHO website to search for facilities in TCOC to assess their compliance with environmental regulations. The subject property was not represented in this search completed on August 20, 2024.
- The Oregon ESCI Database was searched. The subject property nor any adjacent properties were represented in this search as of August 20, 2024.

3.1.1 Database Review for the Subject Site

The following section briefly summarizes database listings for the subject property as provided by the sources referenced in Section 3.1 above.

- **A list of registered underground storage tanks (USTs) for the subject property** is noted in the UST and UST Finder database under the name "Small Pharaoh" (potentially the name of the station at the time). According to this database entry, there are five open USTs registered at the Site: one 10,000-gallon gasoline tank installed in 1985, one 4,000-gallon tank (contents listed as 'Other') installed in 1981, a 3,000-gallon diesel tank installed in 1985, a 5,000-gallon gasoline tank installed in 1981, and an 8,000-gallon gasoline tank installed in 1983. The database also indicates that there are 10 temporarily out-of-service USTs at the site. Additional information on releases from current and former USTs at the Site is provided in Section 3.4. Information obtained from the UST Finder database is included in Appendix C.
- **There are two entries from the UST Finder Release** database indicating releases reported in 1992 (Leaking Underground Storage Tank [LUST] ID: OR26-92-0348) and 1994 (LUST ID: OR18-94-0015). Both entries indicate the Site was granted a status of No Further Action, which agrees with a 1996 letter provided by ODEQ (see section 3.4 for more information) in which ODEQ issues a NFA determination following cleanup activities at the Site. Additional information on releases from current and former USTs at the Site is provided in Section 3.4. Information from the UST Finder Release database is included in Appendix C.
- **There are two entries under the LUST database**; one reported in 1994 that was cleaned up in 1995 (likely referring to the event in the UST Finder Release database), and one reported in 2006 that has not been closed. Additional information on releases from on-site USTs is provided in Section 3.4.
- **There are two entries for the Recovered Government Archive (RGA) LUST** database that lists the Site for every year between 2002 and 2012 between two names: Estby Cornelius Texaco and Cornelius Estby II. Environmental assessments were conducted between 2006 and 2019 for petroleum contamination found throughout the Site related to releases from USTs and are discussed further in Section 3.4.
- **There is one entry for the EDR HIST Auto** database that identifies the property as providing gas station services from 1975 to 1985 as 'Taylors Shell', 1986 to 2001 as 'Estby Corporation' and from 2002 to 2007 as 'TriCounty Petroleum.'
- **There is one entry in the Facility Index System (FINDS)** database that identifies the property as "Dwight Estby Ent Inc" with EPA Registry ID 110013721106. The FINDS listing refers to other state database listings that are mentioned above. This listing in and of itself, is not indicative of environmental impacts to the subject property.

3.1.2 Database Review for Surrounding Sites

Seventy records within one mile of the subject property were identified in the databases searched by EDR. The following section briefly summarizes database listings for databases referenced in Section 3.1 by site name as provided in the listing for sites associated with adjacent or surrounding properties that are higher in elevation than the subject property and listed on databases indicative of a potential contamination concern. Some sites listed in the EDR Radius Report may be at lower elevations relative to the subject property and are not discussed below because ERG assumes that these properties are not likely to cause environmental contamination at the subject property. Additionally, prior assessment work indicates that groundwater at the Site flows generally to the south and some cross-gradient sites

listed in the EDR Radius Report are not discussed below due to a low likelihood that groundwater contamination from those sites would ever intercept the subject property. These database listings were separately evaluated for vapor encroachment concerns in Section 3.6.

Table 1. Database Summary for Surrounding Sites

Site Name and Address	Distance and Cardinal Direction from the Subject Property	Summary of Listing(s)	Potential impacts to the subject property?
Adjacent Sites			
Statton Property – Former Gas Station	Adjacent to the NW	This listing is shown to be listed as a Brownfields site in 2008 in the US Brownfield's Finds database. The database describes the site address as Baseline and N 10th Avenue. Based on information obtained from US EPA's Cleanups in My Community webpage for the site[1], the property is adjacent to the northeast, at the northeast corner of Baseline Street and N 10th Avenue. A Phase I ESA was completed in January 2009 at the site and it is listed as unknown whether clean-up is needed and that clean-up has not occurred. The Property Highlights state that the site was likely used as a gas station from the 1950s until the 1970s, although the exact years of operation are unknown. The site is not listed on the ESCI database.	Given that the property was historically used as a gas station, that the site was assessed under the US Brownfields program and the proximity of this site to the subject property, it is possible that any release could have impacted the subject property. However, since the subject property has been thoroughly characterized, as discussed further in Section 3.4, it is unlikely that this site is impacting the subject property.
CC Ruth & Co. (985 E Baseline Street)	Adjacent to the West	This site is listed on the UST and UST Finder Databases for having one 1,000-gallon gasoline tank that was installed in 1971 and removed from the site in 1991. A review of the Oregon ESCI database does not indicate any releases occurred at this site.	The UST was removed, and the tanks are not listed on any databases indicative of a release.
Surrounding Sites (non-adjacent and upgradient within one mile)			

[1] https://cimc.epa.gov/ords/cimc/f?p=121:31::::31,0:P31_ID:69022 (Accessed on September 25, 2024)

Cornelius Chevron (aka Cornelius Fast Serve, Inc., Cain Petroleum, Inc., Drive-In Services Inc.) (990 N Adair St)	0.081 miles NNW	This site is listed in the UST, National Pollutant Discharge Elimination System (NPDES), Aeromatic Information Retrieval System (AIRS), UST Finder Release, LUST, and OR Hazmat database. It is a fueling station with five registered USTs at the time of this report. A leak was reported in 1992 with Lust ID OR03-92-0321 and was granted a status of No Further Action in the UST Finder Release report. In the LUST database, it indicates cleanup requests received in 1994 that began in 1999 and lists the cleanup completion date as August of 2018. It is unclear if the 1992 entry refers to the same tank as the 1994-2018 entry. Additionally, a hazardous release incident was reported in 1987 in which an unknown volume of unidentified chemicals was spilled. The entry indicates that ODEQ cleaned up the site with the assistance of Crowell Chemical.	The site has received regulatory closure in the form of an NFA for the LUSTs and it is assumed that there are no impacts to the subject property associated with this listing. Additionally, based on the information provided in the OR Hazmat database it is assumed that the hazardous materials spill was sufficiently addressed by ODEQ.
Mary Hollub (223 N 11th Avenue)	0.139 miles NNE	This site is listed in the LUST and LUST Heating Oil Tank (HOT) databases for a leaking underground heating oil tank reported in January 2009. The cleanup was completed in July of 2009 and is listed on the ODEQ ESCI database as closed.	Since a cleanup has been conducted for a release associated with a former UST and is listed with closed status on the ESCI database, it is assumed that there will not be impacts to the subject property associated with these listings.
Baseline Commercial Property (1328 Baseline Street)	0.145 miles to the E	This site is listed in the UST Finder Release and LUST databases. The UST Finder Release entry indicates a leaking underground storage tank that was reported in 1990. The status is listed as No Further Action. The LUST database indicates a leaking tank reported in 2009, the cleanup for which was completed in 2019.	Since a cleanup has been conducted for a release associated with the former UST and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.
Cornelius City Complex (1328 Baseline Street)	0.150 miles ENE	This site is listed in the following databases: Finds, ESCI, LUST, Brownfields, LUST HOT. In 2012, an onsite heating oil tank was inspected at the request of TCOC for redeveloping a residential property into a library/low-income housing development. The city applied for Brownfield assistance to assess the leak (LUST log no. 34-13-1543), and the tank and approximately one cubic foot of impacted soil were removed from the site. According to all listed	Since a cleanup has been conducted for a release associated with the former USTs and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.

		databases the site was granted a No Further Action determination in 2014.	
City of Cornelius (1328 N Barlow Street)	0.193 miles to the NE	The site is listed on the LUST/LUST HOT databases. The entries indicate a release from an underground heating oil tank reported in 2017. The cleanup was completed in 2018 and is listed in the ESCI database as closed.	The database indicates that the leaking UST has been cleaned up and the status is closed so it is assumed that there will not be impacts to the subject property associated with these listings.
Tom Gregg Subaru (aka Happy Valley Motors) (664 Baseline St)	0.195 miles W	The site is listed on the UST, UST Finder, UST Finder Release, and LUST databases. The UST/finder databases list the presence of one closed UST on site. Reports of leaks are documented in two cases: 1990 and 1997. Both are listed as having been cleaned up with a No Further Action determination.	Since a cleanup has been conducted for a release associated with the former USTs and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.
TARR LLC (601 E Baseline Street)	0.234 miles to the W	This site is a Very Small Quantity RCRA Generator listed on the RCRA-VSQG, Finds, and PFAS ECHO databases. They are listed as a chemical wholesaler. There are no reports of any RCRA violations on the ECHO database.	Given that there are no violations listed on the ECHO database, it is assumed that there will not be impacts to the subject property associated with these listings.
Residential Heating Oil Tank (1251 N Davis)	0.245 miles NNE	This site is listed on the LUST/LUST HOT databases for a residential heating oil tank reported to be leaking in 1995. The cleanup was completed in 2004 and is listed on the Oregon ESCI Database as Closed.	Since a cleanup has been conducted for a release associated with the former USTs and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.
US Postal Service (1682 N Adair)	0.332 miles to the ENE	This site is listed in the LUST/LUST HOT databases. The leak was reported in 1997 with no listed cleanup start or completion date. The Oregon ESCI database says that the contamination was discovered while decommissioning the tanks and the status is unassigned. No other information is available. However, the site is roughly at a cross-	Although this tank is indicated to have leaked with no cleanup, migration by groundwater (prior assessment at the subject property indicated a southernly groundwater flow direction) is unlikely and it is

		gradient to the subject property, and migration by groundwater is unlikely in this case.	assumed that there will not be impacts to the subject property associated with these listings.
Cornelius Auto Repair Service (1776 N Adair)	0.393 miles ENE	This site is listed on the UST Finder Release, LUST, VCP and ESCI databases. The two tank releases were reported in 1990 and 1993. Both were cleaned up the same year as the report and issued a No Further Action Determination. Additionally, a 2001 assessment revealed extensive hydraulic oil-impacted soil and groundwater that was excavated in 2002. A NFA determination was granted in 2003.	Since a cleanup has been conducted for a release associated with the former USTs and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.
Residential Heating Oil Tank (681 N 10th Avenue)	0.404 miles N	This site is listed on the LUST/LUST HOT databases for a residential heating oil tank reported to be leaking in 2003. The cleanup was completed in 2005 and is listed on the Oregon ESCI Database as Closed.	Since a cleanup has been conducted for a release associated with the former USTs and is listed with closed status on the ESCI database, it is assumed that there will not be impacts to the subject property associated with these listings.
Stewart-Stiles Truck Line Inc. (Route 3, Box 415-A – Washington, Forest Grove, OR)	0.465 miles N	This site is listed on the UST/LUST databases with two tanks registered as decommissioned. The leak was reported in 1992, and the cleanup was completed in 1996. There are no reports on the ESCI database.	Since a cleanup has been conducted for a release associated with the former USTs, it is assumed that there will not be impacts to the subject property associated with these listings.
Heikes Produce Inc. (535 N 4th Avenue)	0.471 miles NW	The site is listed on the following databases: AST, UST, UST Finder, UST Finder Release, LUST, SPILLS, HSIS, NPDES, and UIC. The onsite UST was removed in 1997 with cleanup activities occurring from 1998 to 1999 with a status of NFA. On the SPILLS database, two 5,000-gallon containers of ethanol reportedly caught fire in 2021. The incident status is listed as On-Going.	As the former UST has been removed and any release associated with it have been granted NFA status, this issue is presumed not to impact the subject property. Additionally, since the 2021 incident involved a fire associated with two ethanol tanks, based on the distance from the subject property and the nature of the material releases, the risk

			to the subject property is assumed to be minimal.
Cornelius Food Oil, LLC (1894 Baseline Street)	0.474 miles E	This site is listed on the UST/LUST/LUST HOT databases with two tanks registered as decommissioned. The leak was reported in 1995, and the cleanup was completed in 2005. The ESCI database lists the site as closed.	Since a cleanup has been conducted for a release associated with the former USTs and has closed status on the ESCI database, it is assumed that there will not be impacts to the subject property associated with these listings.
North Holladay Industrial Park (N Holladay Street)	0.525 miles NNW	This site is listed on the ESCI database and indicates that a Phase I report was prepared for the site following an Industrial Land Certification process. There is no information about historical agricultural practices at the site, but herbicides and pesticides may have been used for agricultural activities. DEQ recommended a soil investigation, and site status has remained 'Site Screening Recommended' since 2016. No further information is available.	Given the distance from the site and the nature of the investigation, it is assumed that there will not be impacts to the subject property associated with this listing.
Henningsen Industrial Site (Yew Street and 24th Avenue, Forest Grove, OR)	0.755 miles WNW	This site is listed on the ESCI and Brownfields databases for Phase I and Phase II site assessments occurring in 2007 and 2008. The Phase II identified trace amounts of heavy oil and beta-BHC (a pesticide) in soil that were below relevant ODEQ Risk Based Concentrations (RBCs). ODEQ issued an NFA determination for the site in 2008.	Since the site has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.
Sheldon Manufacturing Inc. (300 N 26th Avenue)	0.928 miles E	This site is listed on the ESCI database due to complaints of solvent dumping that led to a 1986 inspection. Following the inspection, 1,000 yards of soil were excavated for landfarming. This cleanup resulted in a NFA determination from DEQ.	Since a cleanup has been conducted for contamination found at the site and has received regulatory closure in the form of a NFA, it is assumed that there will not be impacts to the subject property associated with these listings.

3.1.3 Orphan Sites Database

Orphan sites are properties that cannot be precisely geographically located due to inadequate or incomplete address information in government databases or maps. No orphan sites were identified in the EDR Report.

3.2 Historical Uses of the Site

3.2.1 Historical Summary

The site was developed as early as 1888 as part of the Southern Pacific Railroad grounds and was further developed with a rail spur by 1912. By the early 1950s, the rail spur was no longer present, and the Site was reportedly developed as a fueling station in 1953. The site has reportedly been used as a fueling station or gas station since 1950s, with apparent changes in the structures on-site since that time and construction of the current site structures in 1997.

Dwight Estby Enterprises and/or Dwight Etsby and Ethyl Etsby owned the site from 1982 until the dissolution of their marriage resulted in Dwight Estby becoming the sole owner in 2001. From 2002 to 2007 the site operated as TriCounty Petroleum and has been inactive since 2007. In May 2009, the property was sold in public auction to M&G Collections LLC (M&G) in lieu of foreclosure for $150,000. The property was purchased by Islam El Masry in 2015.

Two 3,000-gallon diesel fuel USTs were installed at the site in 1957 and were subsequently decommissioned in-place in 2008. The site currently has seven USTs, including the two decommissioned tanks. The remaining five tanks were installed between 1981 and 1985 and range from 3,000 to 10,000 gallons. A known gasoline release was identified in the Site in the early 1990s and received regulatory closure in 1996 from ODEQ after approximately 24 tons of contaminated soil was reportedly removed from the Site. A second release from on-site USTs or associated buried piping was identified in 2006. Since 2006, various environmental assessments have been performed at the property. A detailed review of these assessments is found in Section 3.4.

Historical information identifying the past use of the subject property was obtained from a variety of sources including review of available City Directories, Aerial Photographs, Sanborn Fire Insurance Maps, and Topographic Maps (included in Appendix B); local municipal records (included in Appendix C); and previous environmental reports (included in Appendix C).

3.2.2 City Directories

ERG reviewed city directories for Baseline Street provided by EDR that covered the years 1970 through 2020. The subject site was listed as “Cornelius Texaco” and “TriCounty Petroleum” at 1021 Baseline Street in 2005. It was listed as “Cornelius Texaco” in 2005, 2000, 1995, 1992, and 1987 at the same address. The EDR Hist Auto database lists the property as a “Taylors Shell” from 1975 to 1985, but this does not appear in the Baseline Street city directory listings.

3.2.3 Aerial Photographs

Aerial photographs of the subject property and vicinity from 1936, 1948, 1951, 1954, 1963, 1970, 1975, 1982, 1994, 2000, 2006, 2009, 2012, 2016, and 2020 were obtained from EDR and reviewed (Appendix B). Based on the varying quality of the aerial photos, features related to the subject property and surrounding areas were more identifiable in certain photos. The summary below describes the subject property and nearby area and is based on interpretations of the aerial photographs using best professional judgment.

In the 1936 aerial photograph, the subject property seems to have been a part of a railyard in the center of Cornelius, with a rail spur shown on the Site. The railyard area is covered in grass and what appears to be sparse trees and vegetation along Baseline Street. North and south of the subject property is

primarily residential property interspersed with agricultural land. The 1948 image is relatively unchanged, perhaps with more residential development throughout Cornelius.

The 1951 aerial photograph shows that the rail spur on the subject property has been removed. The city itself appears similar to photographs from previous years.

In the 1954 photograph, the subject property is developed with a structure in the center of the property, as well as a structure that appears to be either a fuel island or aboveground storage tank. The area between the subject property and N 11th Avenue appears to be sparsely vegetated and vacant.

In the 1963 aerial photograph, the street currently known as N Adair Street approximately one block north of the subject property has been developed. The area around the subject property is more developed with generally more commercial development throughout the City of Cornelius. Changes in the subject property cannot be determined based on the quality of the image.

In the 1970 aerial photograph, a second building appears on the site, southeast of the original structure. Some large patches of agricultural land have been converted to housing developments to the north, northwest and to the south of the subject property. While the 1975 photograph appears similar to the 1970 photograph, it is hard to distinguish site development due to the image quality. By 1982, additional portions of the site appear to have been paved with asphalt and extensive commercial development can be seen in the Site vicinity, starting at the corner of N Adair Street and N 10th Avenue, extending to the northwest. Across the street from the subject property on the other side of Baseline Street, it appears that much of the residential development is becoming more commercial.

In the 1994 aerial photograph, the previous structures on the site have been removed or reduced in size. There is one small rectangular building remaining that may be a fueling canopy shown in the center of the Site. In Cornelius, most of the remaining agricultural land has been converted into housing developments with large residential additions found on the southwestern portions of town. In the northwest, to the west of N 10th Avenue, there are some signs of development showcasing a large parking and warehouse area with dozens of large trucks parked around it.

In 2000, the subject property contains what appears to be the fuel canopy that is located on the site currently. The current bathroom/office shed on the southwest corner of the property is now visible. No other structures are visible from the aerial photograph. This is in line with information obtained from the Washington County Tax Assessment office noting commercial improvements to the property in 1997. The warehouse area in the northwest corner of the city has expanded to include a large addition to the warehouse and parking area, occupying most of the land situated between N Holladay Street, N 10th Avenue, and a second railroad track going through the northern portion of the city. The subject site appears generally unchanged in the aerial photographs from 2006 to 2020.

3.2.4 Sanborn/Historical Maps

Five available Sanborn maps dated 1888, 1892, 1912, 1925 and 1928 were obtained from EDR. Copies of the Sanborn maps are included in Appendix B of this report. What is now Baseline Street is labeled as 4th Street on all of the Sanborn maps. In the 1888 map, the subject site is on a property labeled as the Southern Pacific Grounds, although no apparent development of the subject site is shown. The main rail line, one rail spur and structures associated with passenger and freight depots are shown to the south of the subject property. The 1892 map is relatively unchanged.

In 1912, the Sanborn map notes that the railyard area is now labeled as the Oregon & California Railroad Grounds. A rail spur is shown passing through the subject property and the site configuration on the 1925 and 1928 Sanborn maps remain generally unchanged from the 1912 map.

3.2.5 Historical Topographic Maps

Topographic maps from 1941, 1942, 1956, 1970, 1992, 2014, 2017, and 2020 (Appendix B) were obtained from EDR and reviewed. The subject property and surrounding area observations from the topographic maps are summarized as follows:

The topography indicates that the subject property lies in a flat river plain about 50 feet above the Tualatin River to the south and Council Creek to the north. On the 1941 and 1942 maps, the Southern Pacific Railroad is shown with rail lines in the vicinity of the subject property. A single structure is depicted on the subject property on the 1956,1970 and 1992 maps. On the 2014, 2017 and 2020 maps sufficient detail is not provided to determine the development of the subject property.

3.2.6 Tax Assessors Records

ERG requested building record information from the Washington County Assessment and Taxation portal, as further discussed in Section 6.4. Building records are on file from 1993 to present and indicate the construction of convenience store structures at the site in 1997.

3.3 Historical Use of Adjacent Sites

Based on review of historical aerial photographs, topographic maps, city directories and Sanborn maps, the properties adjacent to the subject property to the south and east were primarily property of the railroad from at least 1888 until the early 1950s. From 1888 to 1928, the building directly adjacent to the west of the subject property is depicted as C.B. Buchanan and Co. Inc. in which grains were processed and stored. Properties adjacent to the north and northeast of the subject site appear to have been utilized for various commercial buildings going back as far as 1888 and include things like a pub, a meeting house, harness shop, a repair garage, a general store, and a skating rink.

A building to the west of the subject property appears in 1951 and remains until 1994. According to the EDR database, this company was CC Ruth & Co. and had a UST that was installed in 1971. The tank was removed in 1991, likely alongside the rest of the structure given that the site appears undeveloped in the 1994 aerial photography. Given that no leaks were reported during the removal and the site is not listed in the ESCI database, it is assumed that this does not indicate an environmental concern. The areas to the east of the subject property contained a rail line from at least the early to mid 1900s. A building was present on the adjacent property to the east on aerial photographs from the 1960s and 1970s, although the use of the site at this time is unknown. The area south of the subject property has been a railroad track since the property was formed.

Review of other entries in the provided City Directories indicated that other addresses in the vicinity of the subject property related to individuals, assumed to be residential properties, or certain commercial businesses, such as chiropractic, medical, and dentistry, which did not indicate environmental concerns that could affect the subject property.

3.4 Previous Environmental Reports

Previous environmental assessments conducted at the subject property are briefly summarized below. Copies of these reports are included in Appendix C.

1996 Letter from ODEQ

The May 1996 letter from ODEQ states gasoline contamination was discovered during station upgrades at the Site and 24 tons of soil was subsequently removed and disposed of at the Hillsboro Landfill. No remaining contamination or signs of groundwater were reportedly encountered in the excavated areas. The extent of excavation is unknown, and the letter indicates that the cleanup activities were poorly documented. ODEQ issued an NFA determination in the letter with regards to the contamination and the associated cleanup.

2006 Site Assessment Report

The August 2006 Site Assessment report documents subsurface investigations completed by K&S Environmental (K&S) in July 2006. The report indicates five underground storage tanks ranging from 3,000 to 10,000 gallons are present on-site. K&S were contacted on request of the owner, Mr. Estby, to investigate subsurface conditions in the vicinity of the 5,000-gallon UST. Four borings (B-1 through and B-4) were developed to depths ranging from 8-12 feet. B-1, B-2, and B-4 were centered around the 5,000-gallon tank, and B-3 was taken under the pump canopy next to a dispenser. Laboratory hydrocarbon identification testing (HCID) conducted indicated that only gasoline-range organics (GRO) were present in samples collected between 8-10 feet depth bgs. Soil samples were analyzed for total petroleum hydrocarbons (TPH) and gasoline constituents (benzene, toluene, ethylbenzene and naphthalene or BTEXN). TPH-gasoline range organics (GRO) were detected at concentrations ranging from 107 milligram per kilogram (mg/kg) to 659 mg/kg and benzene was detected at concentrations ranging from 0.785 mg/kg to 13.2 mg/kg in B-1, B-2 and B-3 at depths of approximately 7 feet. K&S recommended additional investigation.

2007 Subsurface Investigation Report

The October 2007 Subsurface Investigation report completed by K&S included the collection of soil and groundwater samples to further characterize the Site and collect information associated with decommissioning-in-place two USTs. The 2007 report identifies two 3,000-gallon USTs that were decommissioned and filled with pea gravel. During this visit, K&S performed six additional borings to a depth of 15 feet and installed temporary groundwater monitoring wells in each boring. Three borings (TW1, TW2 and TW3) were centered around the two decommissioned USTs on the western portion of the site. Soil samples from these borings were collected at a depth of 10 feet bgs and groundwater samples were collected. Borings B-5, B-6 and B-7 were installed at the northern, southern, and eastern boundaries of all USTs installed at the site and were only sampled for groundwater. TPH-GRO in groundwater samples ranged from 1,190 micrograms per liter (ug/L) to 62,000 mg/L and ranged from 664 mg/kg to 7,590 mg/kg in soils. BTEXN and other gasoline constituents were also detected in soil and groundwater. K&S concluded that groundwater impacts were greatest in the vicinity of the USTs and likely extended off-site. K&S recommended the installation of permanent groundwater monitoring wells and additional investigation.

2008 - 2009 Subsurface Investigations and Routine Monitoring Reports Report

K&S a subsequent subsurface investigation focused on groundwater in March 2008, developing and sampling four temporary monitoring wells. In July 2008, installed and sampled four groundwater monitoring wells, located near the northern, southern and eastern boundaries of the UST area on the western portion of the property. Another well was installed adjacent to the two decommissioned USTs. These wells were subsequently sampled in October 2008 and October 2009. The results detected the presence of TPH-Diesel Range Organics (DRO), TPH-GRO, benzene, toluene, ethylbenzene, xylene,

naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, isopropylbenzene, n-propyl-benzene and certain polycyclic aromatic hydrocarbons (PAHs) in all or some of the sampling events. Generally, the trends from these series of four sampling events indicated that the concentrations of certain constituents were increasing, and that the monitoring well MW-1 (located at the southwestern property boundary) had the highest detected concentrations of constituents of concern.

The report indicated that the UST system had been temporarily out of service since early 2009, but it was not clear if the increasing groundwater concentrations detected were the result of a historical or more recent release.

2010 and 2011 ODEQ Notice of Violation Letters and 2012 Final Order

On August 19, 2010 and February 8, 2011, ODEQ issued initial and follow-up notice of violation (NOV) letters to the property owner, M&G. The letters identified the following NOVs related to a UST release at the Site:

- A failure to complete investigations for the magnitude and extent of contamination at the Site. Four quarterly monitoring events were required to be completed following the installation of groundwater wells in July 2008. Three non-consecutive sampling events were performed in July 2008, October 2008 and August 2009. The letter indicated that groundwater monitoring results for TPH-GRO and other constituents in MW-1 exceeded Risk-Based Concentration standards for one or more exposure pathways.
- Failure to submit the results from a November 2009 investigation of the railroad right-of-way located south of the site.

On January 17, 2012, ODEQ issued a Final Order which assessed a $28,961 civil penalty of $28,961 for failure to comply. The Final Order includes the following violations:

- Failure to initiate and complete an insufficient investigation to determine the full nature, magnitude and extent of soil and groundwater contamination at the property. This includes an insufficient quantity and frequency of groundwater sampling even and an insufficient number of soil samples collected.
- Failure to obtain the appropriate permit registration before operating a UST system in temporary closure. ODEQ issued a General Permit Registration Temporary Closure Certificate for the UST system at the Site on March 10, 2009, which expired on March 10, 2010.
- Failure to maintain a valid financial responsibility mechanism for the UST system.
- Failure to submit a modification application within 60 days after a chance in ownership to the UST certification.
- Failure to submit reports and data related to a release from a UST.

2017 Groundwater Sampling Results

The January 2017 Groundwater Sampling report prepared by Alpha Environmental for Greene & Markley, P.C., which summarizes groundwater sampling data collected from the four existing monitoring wells at the site in December 2016. The report also presents groundwater sampling data from previous quarterly sampling events conducted in August/September 2016 and February 2016, as well as groundwater sampling conducted in December 2012. Samples were generally tested for TPH-GRO, DRO and Residual Range Organics (RRO), BTEX, Risk-Based Decision Making (RBDM) VOCs and PAHs. The 2018 Work Plan from Evren Northwest, Inc. (ENW) also summarized this historical sampling data and noted that TPH-GRO concentrations in groundwater appear to have been strongly influenced by the

depth to groundwater, with higher concentrations corresponding to sampling events where the depth to groundwater was greater. ENW suggested that this may be indicative of partitioning of contamination from groundwater to soil as the groundwater elevation increases.

2018 Groundwater Monitoring Report

During December of 2018, ENW sampled MW-2, MW-3, and MW-4. MW-1 could not be sampled due to being partially filled at the time of sampling. TPH-GRO results from the wells ranged from 200 to 8,700 ug/L (MW-2 being the highest).

2019 Focused Site Investigation

The May 2019 Focused Site Investigation report, prepared by ENV for Islam El Masry, presents soil gas, soil and groundwater data collected in February and April 2019 to further delineate petroleum impacts at the Site. ENW completed seven soil borings (EB01 through EB08) at depths ranging from 5.5 to 8.5 feet bgs, six soil gas borings (SG01 through SG06) at depths ranging from 4 to 5 feet bgs and collected groundwater from each of the seven soil borings using a temporary well screen at depths ranging from 2 to 9.5 feet bgs. For the soil samples, neither TPH-GRO nor RBDM VOCs were detected above their method reporting limits (MRLs) in any one sample. Lead was detected at levels below the background lead concentrations for the area. GRO-TPH, RBDM VOCs and lead were not detected above their respective MRLs in groundwater samples. Certain constituents were detected in soil gas samples, however, none exceeded ODEQ's screening level RBCs.

ENW concludes that the only potential exposure pathway applicable for the Site is direct contact to soil and groundwater for occupational workers during future construction and excavation. Based on this, the only exceedances identified were for construction and excavation workers from direct contact with groundwater due to TPH-GRO, benzene and naphthalene. ENW concludes that t a contaminated media management plan should be made. Additionally, ENW recommends decommissioning all onsite USTs, piping and pump island, and monitoring wells.

2019 Second Round Soil Gas Assessment

In July of 2019, additional soil gas sampling was performed by ENW for Islam El Masry at the request of ODEQ. ODEQ indicated that there were anomalies associated with the previous soil gas sampling conducted in February 2019 and that additional data collected during the dry season would supplement initial samples collected during the wet season. Six samples were taken at 5 feet in identical locations as the February 2019 sampling event, in addition to a seventh taken near MW-2. The results were consistent with the 2019 Focused Site Investigation report with various detections all under ODEQ screening level RBCs. ODEQ published revised RBCs for vapor intrusion in March 2024 (ODEQ 2024). The March 2024 vapor intrusion RBC for TPH-GRO in soil vapor for commercial land use is 40,000 ug/m^3. The July 2019 soil gas result for TPH-GRO collected at SG-06, just west of the center pump island at the Site, was 50,398.2 ug/m^3, which exceeds the 2024 RBC.

3.5 Vapor Encroachment Evaluation

ERG has conducted a Vapor Encroachment Screen (VES) by evaluating historic and regulatory record sources along with soil, topographic, and groundwater data in the vicinity of the subject property. The purpose of the VES is to determine the likelihood that Vapor Encroachment Conditions (VECs) exist at the subject property. It should be noted that this VES was not conducted in full compliance with ASTM E2600-22 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate

Transactions; rather, this VES is the equivalent of a Tier 1 screening. Consideration of vapor encroachment consists of reviewing available information and use of professional judgment in determining 1) whether contamination is suspected in the soil and/or groundwater at, or near, the subject property, and 2) whether identified contamination is suspected to exist within a Critical Distance from the subject property.

Critical Distances, as defined in ASTM E2600-15, refer to the maximum distances at which vapor encroachment may occur. These distances vary depending on topographic and hydrologic gradient, width of the contaminant plume, and type of contaminant known, or suspected to exist. Generally, Critical Distances are 100 feet for non-petroleum constituents of concern (COCs) and 30 feet for dissolved petroleum COCs. If a facility is beyond the Critical Distance, it is highly unlikely that a VEC exists. Consideration of topographic gradient is key to defining the area of concern within which Critical Distances are applied. When plume data is not available, areas of concern are used in lieu of Critical Distances to determine whether a VEC exists or not. According to ASTM E2600-15, the areas of concern for these Critical Distances are as follows:

- 1,760 ft (1/3 mi) for contamination located up-gradient of the subject property, except for dissolved petroleum hydrocarbons, which have a distance of 528 ft (1/10 mi);
- 365 ft for contamination located cross-gradient of the subject property;
- 100 ft for contamination located down-gradient of the subject property, with the exception of dissolved petroleum hydrocarbons, which have a distance of 30 ft. If non-aqueous phase petroleum hydrocarbons (LNAPL) are present, the 100-ft distance is utilized.

The following facilities have been identified as being within 1,760 ft (1/3 mi) from the subject property and were considered for the VES:

Subject property

- Based on the known releases of petroleum products from on-site USTs at the Site, there is a VEC associated with the Site. More detailed sampling information and vapor instruction discussion is included in Section 3.4 and Sections 8.0 and 9.0.

Up-gradient (north based on a presumed groundwater flow to the south):

- **Cornelius Chevron** is located approximately 430 ft north-northwest from the subject property and is listed as currently having five USTs onsite. At least one release was documented in 1992, with EDR listings indicating cleanup activities spanning from 1999 to 2018. Because the cleanup is considered complete and the granted an NFA determination from the state of Oregon, it is not considered a VEC.
- **US Market 500 LLC** is located approximately 578 ft west-northwest from the subject property and is listed as having four USTs onsite. There are no reported leaks and the distance to the subject property is beyond the area of concern for petroleum hydrocarbons, it is not considered a VEC.
- **223 N 11th Avenue** located approximately 734 ft north-northeast from the subject property had one residential heating oil tank. The leak was reported in January of 2009, and cleanup was completed in July of that same year. Because the site is listed as closed by the state of Oregon with NFA required, and the distance to the subject property is beyond the area of concern for petroleum hydrocarbons, it is not considered a VEC.

- **1251 N Davis Street** located approximately 1295 ft north-northeast from the subject property had one residential heating oil tank. The leak was reported in 1995, and cleanup was completed in September of 2004. Because the site is listed as closed by the state of Oregon with NFA required, and the distance to the subject property is beyond the area of concern for petroleum hydrocarbons, it is not considered a VEC.

Cross-gradient (east or west):

- **CC Ruth & Co.,** located approximately 234 ft west of the subject property, is listed in the EDR UST database for a 1000-gallon gasoline UST that was installed in 1971. The tank was removed in 1991. Because there are no documented releases for this site and because the presumed direction of groundwater flow is south toward the Tualatin River, this site is not considered a VEC.

Downgradient (south):

- No downgradient site was identified within 100 ft of the subject property.

ERG identified 5 facilities as being within Critical Distance from the property (1,760 ft upgradient, 365 ft cross-gradient, and 100 ft downgradient). Based on ERG's Vapor Encroachment Screen, this investigation did not identify any VECs associated with off-site nearby properties. There is a VEC associated with known on-site releases.

3.6 Environmental Liens and Activity and Use Limitations

Per ASTM 1527-21, reviewing land title records and judicial records for environmental liens and activity and use limitations is a user responsibility. As discussed below in Section 4.0, ERG reviewed the User Questionnaire completed by TCOC, which indicated that the User is aware of environmental liens at the subject property and are discussed further in Section 4.0. The User was unaware of AULs pertinent to the subject property. TCOC provided deeds and lien documentation for the Site in May 2024. The EDR report included a search of federal and state institutional controls/engineering controls registries and did not identify the subject property on any of the following: the Land Use Control Information System (LUCIS), Engineering Controls Sites List (US ENG CONTROLS), Institutional Controls Sites List (US INST CONTROLS), or IDEQ List of Sites with Institutional Controls Restricting Use. ERG assumes that the User will conduct a search for AULs and environmental liens in land title records or judicial records as part of the property purchase, such as Methods 1 or 2 as described in ASTM 1527-21 Section 6.2, if applicable.

4. User-Provided Information

ERG reviewed the TBA Application prepared by TCOC, the TBA Applicant/User, as well as the User Questionnaire which was prepared by Barbara Fryer, Direct of Community Development for TCOC on August 15, 2024. Copies of the TBA Application and User Questionnaire are provided in Appendix C.

Based upon the User Questionnaire, Barbara Fryer indicates that fines and penalties have been levied, and environmental cleanup liens are currently placed upon the property. Ms. Fryer provided documentation of the liens in which a penalty of $15,677 was placed upon Mr. Masry in 2018 for failure to properly insect or decommission the tanks. In this document, it was determined that $14,777 of the $15,677 penalty was the economic gain that Mr. Masry obtained from his failure to comply with the inspection or decommissioning requirements, and that the penalty would be recalculated if he were to

comply with the requirements. A second lien was placed upon Mr. Masry one year later in 2019 for $1,477 that was recently settled in July 2024 and subsequently reportedly removed from the record.

Ms. Fryer was unaware of any Activity/Use Limitations (AULs) pertinent to the subject property. In the User Questionnaire, Ms. Fryer indicated that the subject property was a fueling station that sold diesel, leaded and unleaded gasoline fuel with a history of site investigations and assessments. The documentation for this was largely included alongside the TBA application. Ms. Fryer also indicated that she did not possess specialized knowledge related to the subject property outside of her expertise as a land-use practitioner.

5. Phase I Site Reconnaissance

5.1 Methodology and Limiting Conditions

Mr. Sedrek Kovar of ERG completed the site reconnaissance of the subject property on August 1, 2024. The weather conditions were sunny and clear throughout the day, with temperatures ranging from the mid-60s to mid-90s degrees Fahrenheit. Mr. Mark Gregoli, a representative with TCOC, provided access to the property and assisted with removing the plywood to gain access to the various structures on the subject property.

Mr. Kovar completed the site reconnaissance, which consisted of walking throughout the exterior of the property and taking photographs of all the structures onsite. Mr. Gregoli removed the plywood on the door of the shed building, as well as the central kiosk area, to allow access for photos and inspection. All areas of the subject property were assessed except for the roof and the external wall of the shed building due to overgrown thorny vegetation. Adjacent properties were visually observed from the curbside but were not entered. Photographs of pertinent features identified during the site reconnaissance are included in Appendix A.

5.2 General Subject Property Setting

The subject property is within a mixed residential/commercial neighborhood. The ground surface at the subject property is generally flat. Groundcover consists of the buildings/fueling infrastructure, a large asphalt/concrete parking lot, a small area of grass and vegetation near the sidewalk, and some bushes that line the southern end of the property.

5.3 Property Observations

The subject property was assessed on August 1, 2024, and the following observations were made on both the interior and exterior areas of the subject property.

5.3.1 Hazardous Substances

Hazardous substances were absent from the property based on what was seen during the inspection. According to conversations with the property owner and TCOC, the kiosk area was subject to frequent vandalism and a small fire burnt a significant portion of the interior, but was not believed to be significant in extent of the overall site. The contents of the kiosk primarily consists of disconnected piping and wiring. There were two electric heating units inside that appeared to be disconnected. The ceiling of the kiosk area was a sheet metal drop ceiling. The office/bathroom shed was largely empty apart from an old desk, some sheet metal, and the bathroom area. While the fuel pumps remain onsite, one of the pumps was disassembled and some of the electronics were removed. A second pump had a

front cover removed, revealing some of the fuel filters underneath which were not believed to contain hazardous materials.

5.3.2 Petroleum Products

It is unclear if petroleum products still exist on site. The site visit confirmed that five USTs remain at the subject property, but their contents are unknown. Mr. Kovar attempted to access the fill-pipes during the visit but was not able to determine the contents of the USTs. Trace amounts of petroleum likely remain within some of the pump infrastructure.

5.3.3 Underground Storage Tanks (USTs)

Five USTs were identified during the site visit. In addition, a concrete pad where the two decommissioned USTs are presumed to lie can be seen in the parking lot, but the tanks themselves are not visible. The fill pipe for the 8,000-gallon UST near the Baseline Street and N 10th Avenue intersection was visibly full of water.

5.3.4 Aboveground Storage Tanks (ASTs)

No ASTs were observed on the subject property during the site reconnaissance.

5.3.5 Odors

A musty odor was in the bathroom shed, which was likely due to the nonfunctional toilet. No other strong, pungent, or noxious odors were identified during the site visit.

5.3.6 Standing Water, Pools or Sumps Likely to Contain Hazardous Substances

No standing surface water, pools, or sumps containing liquids were observed at the subject property during the time of the site reconnaissance.

5.3.7 Drums, Totes, and Intermediate Bulk Containers

No containers, drums, or items holding any substance were identified on the subject property during the site reconnaissance.

5.3.8 Hazardous Substance Containers Not in Connection with Identified Uses

No containers, drums, or items holding any substance were identified on the subject property during the site reconnaissance.

5.3.9 Unidentified Substance Containers

No containers, drums, or items holding any substance were identified on the subject property during the site reconnaissance.

5.3.10 Polychlorinated Biphenyl (PCB)-Containing Items

One pad-mounted transformer was found on the northeastern portion of the property next to the sidewalk with a 'No PCB' sticker found on the side (310716-28). The transformer was in good condition with no obvious signs of staining. A second pad-mounted transformer in good condition was found on the corner of N 11th Avenue and Baseline Street and was labeled with a 'No PCB' sticker.

5.3.11 Exterior or Interior Staining

Water stains are present throughout the bathroom shed and central kiosk. Additionally, since the kiosk area was subject to fire, the concrete is generally stained with soot and other debris. There were not significant surface staining that gave reason to believe that there were large releases of petroleum products or hazardous substances at the site surface, beyond minimal staining near the fuel pumps. The stains are limited in aerial extent and occurred on concrete and therefore are not anticipated to have significant impact to soil and groundwater at the site.

5.3.12 Drains and Sumps

Two central drain grates were identified on opposite sides of the parking lot. While the western drain was dry with vegetation growing out of it, the eastern drain had standing water with an iridescent sheen. The current owner said that he believes it connects to the city sewer system. There was a drain in the bathroom shed that likely led to a sewer cleanout access in front of the shed.

5.3.13 Pits, Ponds, or Lagoons

No pits, ponds or lagoons were observed on the subject property during the site reconnaissance.

5.3.14 Solid Waste

Abandoned materials were observed throughout the parking area and in the bushes behind the property. Trash and various cardboard boxes were observed throughout the site, although no waste was observed that would impact subsurface conditions at the site.

5.3.16 Stressed Vegetation

Field staff did not observe any notably stressed vegetation that would indicate an environmental concern.

5.3.17 Wells

Two monitoring wells were observed near the UST area. They appeared to be in good condition and were flush with the ground. These are discussed further in Section 8.0.

6. Phase I Interviews

Interviews were conducted with individuals who may have been knowledgeable about the current or past site conditions. The following individuals were interviewed and provided pertinent information.

6.1 Current Owner, Islam El Masry

Mr. Masry provided information to Mr. Kovar in an email on August 22, 2024. In the email, Mr. Masry confirms that he purchased the subject property from a lawyer who owns M&G Collections, LLC in 2015. He indicated that he purchased the property as an individual and not through a business entity. Mr. Masry stated that he was unaware of the environmental issues at the site prior to purchasing the property and received a letter from ODEQ approximately one year after the purchase.

According to Mr. Masry, there are no active utilities at the site and the city charges him a small amount for sewer service each month. He said that there are seven tanks on site, two of them filled with concrete. From his understanding, the gas station has been closed for at least 20 years. He said that a fire was started by people occupying the kiosk shelter, he did not specify when.

Mr. Masry was not aware whether any current environmental liens exist on the property.

6.2 Oregon Department of Environmental Quality

Upon approval of the TBA application, Oregon DEQ provided EPA pertinent agency information related to the subject property in May 2024. This information primarily consists of prior environmental assessments discussed in Section 3.4. Additionally, ODEQ provided a narrative summary of the site status, which indicates that the information provided in the two 2019 site investigations qualified the site for an NFA based on the May 2018 RBCs. ODEQ further indicates that the five out-of-compliance USTs have prevented issuance of an NFA letter to date.

6.3 City of Cornelius

Throughout the TBA process, ERG has worked intimately with TCOC regarding information pertaining to the Site and surrounding properties. They have been the primary point of contact for obtaining documentation regarding the environmental liens, fires, and historical uses of the site that are mentioned throughout this report.

6.4 Washington County Taxation and Assessment Portal

Through July and August of 2024, Washington County online property records were reviewed for information regarding the Site and adjacent properties. The information in the online property records date back to 1993, and state that a convenience market was added to the site in 1997. These commercial improvements are in line with what was witnessed in the 2000 aerial photograph.

6.5 Cornelius Fire Department

Public information requests were made to the Cornelius Fire Department/City of Cornelius on August 22nd regarding the spill/explosion at Heike Produce discussed previously in the EDR Review in Section 3.1.2. The Cornelius Fire Department responded on September 9th, 2024 with various reports related to the incident.

7. Non-Scope Considerations

Certain additional concerns are briefly discussed below. Although these concerns are typically outside the scope of a Phase I ESA, they may be relevant to the proposed reuse of the subject property.

7.1.1 Asbestos-Containing Building Materials

No suspect or presumed ACBM was observed during the site inspection. It is unclear if any suspect or presumed ACBM was in the area above the drop ceiling in the kiosk area, as this area was not observed during the site inspection. Since the site structures were constructed in 1997, after the phasing out of ACBMs in the 1980s, it is assumed that ACBMs were not used in building construction. However, it is noted that ODEQ does not have an exemption date for the requirement to conduct an asbestos survey prior to renovation or demolition activities, and prior to such activities, an asbestos survey by an accredited inspector may be required.

7.1.2 Lead-Based Paint

While various layers of flaking paint were seen on the outside of the various surfaces onsite, it appears that the structures that are currently on the property were built in 1997, after the lead-based paint ban

in the late 1970s. Based on the date of construction, it is assumed that lead-based paint would not be present on building surfaces.

7.1.3 Mercury-Containing Fixtures/Equipment

No obvious mercury-containing building materials were observed during the site inspection, although certain light fixtures and other equipment may contain mercury. Mercury may be used in various components present in fuel pumps, such as control and float switches.

7.1.4 Building Materials Containing PCBs

No obvious PCB-containing building materials were observed during the site inspection. Although oil-filled capacitors in gas stations may have historically contained PCBs, the fuel dispensing equipment is presumed to have been installed in 1997, after the use of PCBs were phased out in the late 1970s.

7.1.5 Lead in Drinking Water

Lead-containing materials were banned from use in public water systems, including plumbing connections, in 1986. Based on the construction dates of the buildings on the subject property (1997), lead in drinking water is not likely to be a concern.

7.1.6 Radon

Radon gas is a product of the decay series that begins with uranium. Radon is produced directly from radium, which can be commonly found in bedrock that contains black shale and/or granite. Radon gas can migrate through the ground and enter buildings through porous concrete or fractures. Radon tends to accumulate in poorly ventilated basements. Long-term exposure to radon has been associated with lung cancer.

The USEPA has designated three zones of classification indicating the predicted average indoor screening level of radon per county. Washington County, Oregon, is classified in Zone 2 (moderate potential), which indicates that average indoor radon levels may be between than 2 and 4 picocuries per liter of air (pCi/L). Radon sampling would be necessary to determine site-specific radon conditions.

8. Findings and Opinions

The Phase I ESA uncovered the following findings. Also discussed are ERG's opinions regarding the significance of the findings in the determination of RECs of the subject property.

- **Federal and State Database Listings for the Subject Property:** The subject property is listed on seven databases based on the review of federal and state databases: UST, UST Finder, UST Finder Release, LUST, RGA LUST, the EDR Hist Auto, and FINDS database. These reports document historic gas station service activities going back until at least 1975, with two reports of leaking tanks that have received regulatory closure (1992 and 1994), and one that has yet to receive regulatory closure in the form of an NFA (2006 to present). It is ERG's opinion that the LUST listings without regulatory closure are indicative of a REC.
- **Federal and State Database Listings for Surrounding Sites:** The June 2024 EDR report identified multiple nearby properties on state or federal environmental databases. Seventy (70) records within one mile of the subject property were identified in the databases searched by EDR. Several sites adjacent to or upgradient from the subject property were listed on databases of concern and are discussed in detail in Section 3.1.2. Based on review of the available

information regarding these sites, it is ERG's opinion that the database listings do not constitute RECs in connection with the subject property.

- **Vapor Encroachment Conditions**: ERG identified 5 facilities as being within Critical Distance (see Section 3.6) of the subject property. Based on ERG's Vapor Encroachment Screen, this investigation did not identify any VECs associated with nearby properties. The subject property has known releases of petroleum products on-site, and vapor intrusion issues are discussed further below.
- **Known Petroleum Releases from USTs at the Subject Property.** The Site has seven known USTs on-site (installation dates and current status provided in parenthesis): two 3,000-gallon diesel tanks (1957, decommissioned in-place), one 4,000-gallon gasoline tank (1981, inactive), one 5,000-gallon gasoline tank (1981, inactive), one 8,000-gallon gasoline tank (1983, inactive), one 3,000-gallon diesel tank (1985, inactive), and one 10,000-gallon gasoline tank (1985, inactive). In 2006, a release of petroleum products was identified and investigated in the vicinity of the 5,000-gallon UST. Subsequent sampling events were conducted sporadically from 2007 to 2018 for subsurface soil and groundwater on the western portion of the site, which identified exceedances of ODEQ RBCs for gasoline COCs. In 2019, two additional site assessments were conducted to delineate impacts to soil and groundwater and vapor intrusion concerns and summarize all historical environmental sampling data at the site. Although exceedances for several ODEQ RBCs are identified for historical environmental sampling data, complete exposure pathways for the site are for direct exposure to soil and groundwater for construction or excavation workers and vapor intrusion into buildings.

  Exceedances of ODEQ's 2018 groundwater RBS for direct contact for excavation/construction workers were identified in the 2016-2018 groundwater sampling data for TPH-GRO, benzene and naphthalene. Additionally, The July 2019 soil gas result for TPH-GRO collected at SG-06, just west of the center pump island at the Site, was 50,398.2 ug/m^3, which exceeds ODEQ's 2024 vapor intrusion RBC for commercial use properties. It is ERG's opinion that the known releases from USTs at the site constitutes a REC.
- **Wells.** During the site visit, two monitoring wells were identified that were installed during previous environmental assessments. Additionally, one partially-decommissioned monitoring well and one other monitoring well may also still be present on-site based on the known number of wells installed. It is ERG's option that the presence of these monitoring wells do not constitute RECs, but are discussed further in Section 9.2.

9. Conclusions and Recommendations

9.1 Conclusions

ERG has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-21 of the subject property. This assessment has identified the following potential recognized environmental conditions (RECs) in connection with the subject property:

- **Known Releases from On-site USTs**: The Site has seven known USTs on-site (installation dates and current status provided in parenthesis): two 3,000-gallon diesel tanks (1957, decommissioned in-place), one 4,000-gallon gasoline tank (1981, inactive), one 5,000-gallon gasoline tank (1981, inactive), one 8,000-gallon gasoline tank (1983, inactive), one 3,000-gallon diesel tank (1985, inactive), and one 10,000-gallon gasoline tank (1985, inactive). In 2006, a release of petroleum products was identified and investigated in the vicinity of the 5,000-gallon

UST. Subsequent sampling events were conducted sporadically from 2007 to 2018 for subsurface soil and groundwater on the western portion of the site, which identified exceedances of ODEQ RBCs for gasoline COCs. In 2019, two additional site assessments were conducted to delineate impacts to soil and groundwater and vapor intrusion concerns and summarize all historical environmental sampling data at the site. Although exceedances for several ODEQ RBCs are identified for historical environmental sampling data, complete exposure pathways for the site are for direct exposure to soil and groundwater for construction or excavation workers and vapor intrusion into buildings.

Exceedances of ODEQ's 2018 groundwater RBC for direct contact for excavation/construction workers were identified in the 2016-2018 groundwater sampling data for TPH-GRO, benzene and naphthalene. Additionally, The July 2019 soil gas result for TPH-GRO collected at SG-06, just west of the center pump island at the Site, was 50,398.2 ug/m^3, which exceeds ODEQ's 2024 vapor intrusion RBC for commercial use properties. Based on the known exceedances of ODEQ RBCs for these complete exposure pathways, this is a REC.

- **On-Site USTs without Proper Closure Documentation.** The five USTs installed at the site between 1981 and 1985, ranging in size from 3,000 gallons to 10,000 gallons, have not been in use since 2007 and have not been properly decommissioned and granted regulatory closure. The contents and conditions of these five USTs and associated piping are unknown. Lack of administrative closure could prevent regulatory closure of the site. Although the site has been significantly characterized from previous environmental assessments, as the current conditions and contents of the tanks are unknown, it cannot be ruled out that releases from these tanks could be continuing to impact the subsurface of the Site. Based on the lack of closure of the on-site USTs, this is a REC.
- **Historic Site Operations**: A rail spur was located on the property from at least 1912 until the early 1950s as part of the Southern Pacific Railroad that ran west to east through the parcel. Rail spurs represent environmental concerns to the potential of historical application or transport of hazardous substances of petroleum products. Materials containing certain toxic metals, VOCs and PAHs have historically been used to construct rail beds and rail spurs. The Site has been significantly characterized for COCs related to gasoline and diesel releases, including VOCs and PAHs, but metals testing has been limited. Contamination resulting from activities in the vicinity of the former rail spur would likely be confined to near subsurface soils beneath the current asphalt paving. Due to the potential for use of hazardous substances in the construction of rail spurs, the historic presence of a rail spur on the Site is a REC.

In addition, this assessment has identified the following historical recognized environmental condition (HREC) in connection with the subject property:

- **Known Release from USTs with Regulatory Closure.** A release of petroleum products was identified at the site from USTs associated with gas station operations in the early 1990s. 24 tons of contaminated soil were reportedly removed from the Site in 1996 and the site received regulatory closure in the form of an NFA letter from ODEQ in 1996. Since the site received regulatory closure for this matter without site use or activity restrictions, this is an HREC.

This assessment has also identified the following area of concern, which does not meet the definition of a REC, but may still be a relevant finding the in the context of the TBA process:

- **Hazardous Building Materials.** No suspect or presumed asbestos containing building materials (ACBM) was observed during the site inspection. It is unclear if any suspect or presumed ACBM was in the area above the drop ceiling in the kiosk area, as this area was not observed during the site inspection. Since the site structures were constructed in 1997, after the phasing out of ACBMs in the 1980s, it is assumed that ACBMs were not used in building construction. However, it is noted that ODEQ does not have an exemption date for the requirement to conduct an asbestos survey prior to renovation or demolition activities, and prior to such activities, an asbestos survey by an accredited inspector may be required.

9.2 Recommendations

Based upon available information collected from interviews, records reviews, and the site reconnaissance, ERG recommends a Limited Phase II assessment be conducted to include the following:

- Collection of additional groundwater and soil vapor samples in the western portion of the Site to evaluate whether exceedances of ODEQ's RBCs for the exposure pathways identified remain at the site.
- Soil sampling may also be included as part of this effort to evaluate current subsurface soil and surface soil conditions due to the potential for continued releases from USTs without closure documentation and metals contamination from the historic on-site rail spur, respectively.

Additionally, based on the findings and conclusion summarized above, ERG recommends the following:

- Abandonment of the onsite monitoring wells and suspected partially decommissioned wells installed for previous environmental assessments and identified during site reconnaissance prior to redevelopment of the TBA Site.
- Proper closure of the five USTs remaining at the site that have not been decommissioned, in accordance with State and local requirements. Removal of buried piping and fuel pumps associated with the fuel distribution system at the Site.
- Development of a Contaminated Media Management Plan to ensure proper handling and management of petroleum-impacted subsurface soils and groundwater during subsurface work to limit exposure risks to future excavation or construction workers at the Site.
- Completion of a hazardous building material survey (HBMS) of the site prior to demolition of site structures to determine whether asbestos containing building materials are present, in accordance with Oregon Administrative Rule 340-248-0127(1).

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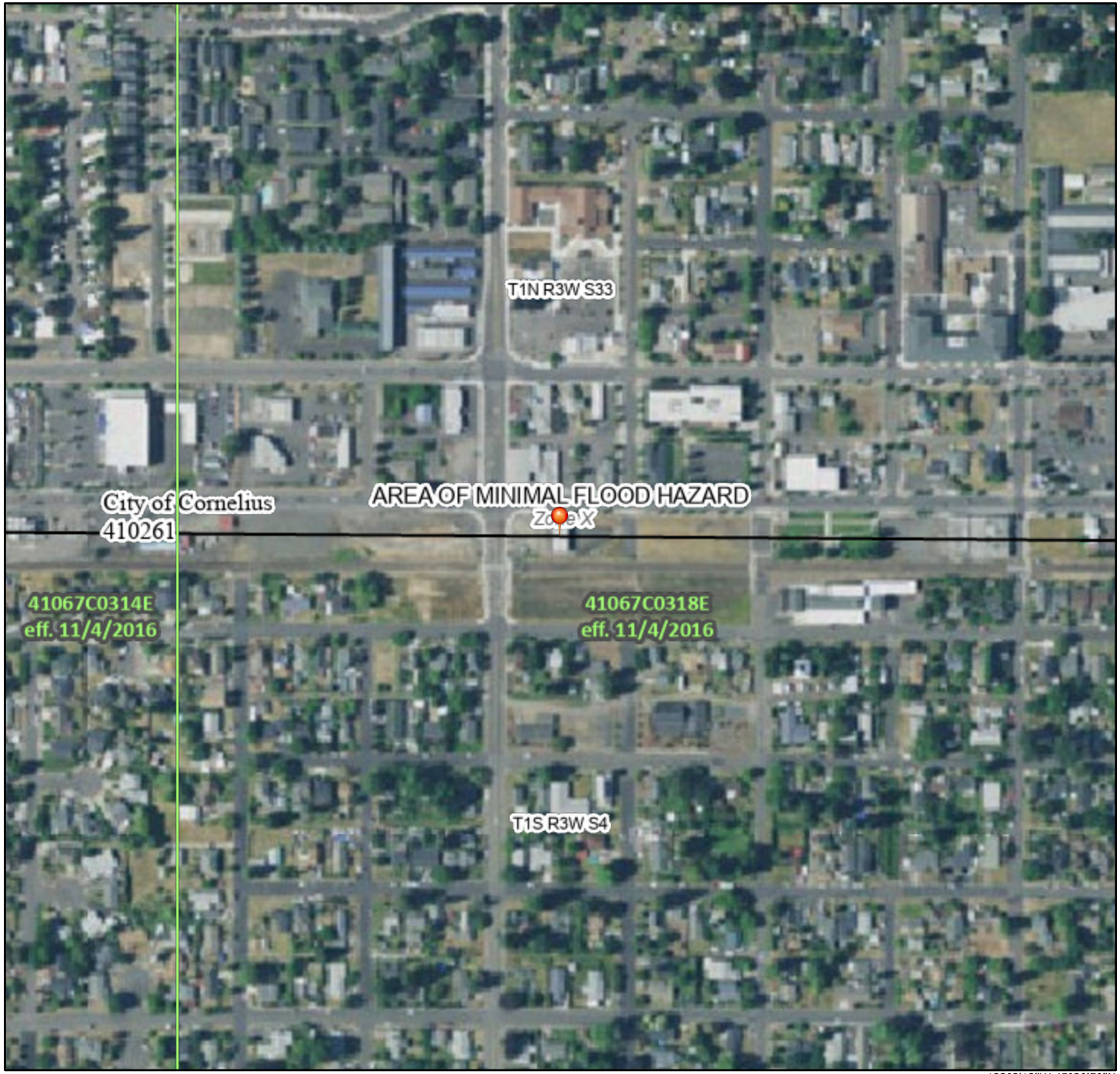
Alta Science & Engineering, Inc.	PRINT DATE: September 20, 2024 PROJECT NUMBER: 22136 - Task 10.0	PROJECTION: UTM NAD 83, Zone 11N PROJECT MANAGER: B. McLees CARTOGRAPHER: A. Ward	PROJECT NAME: 1021 & 1037 Baseline Street	FIGURE 1 Aerial Site View and Surrounding Properties	This map was produced using information obtained from several different sources that have not been independently verified. These sources have also not provided information on the precision and accuracy of the data. Information on this map is not a substitute for survey data.

Alta Science & Engineering, Inc.	PRINT DATE: September 20, 2024 PROJECT NUMBER: 22136 - Task 10.0	PROJECTION: UTM NAD 83, Zone 11N PROJECT MANAGER: B. McLees CARTOGRAPHER: A. Ward	PROJECT NAME: 1021 & 1037 Baseline Street	FIGURE 2 Site Layout	This map was produced using information obtained from several different sources that have not been independently verified. These sources have also not provided information on the precision and accuracy of the data. Information on this map is not a substitute for survey data.

National Flood Hazard Layer FIRMette

FEMA

123°3'51"W 45°31'24"N



123°3'13"W 45°30'59"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

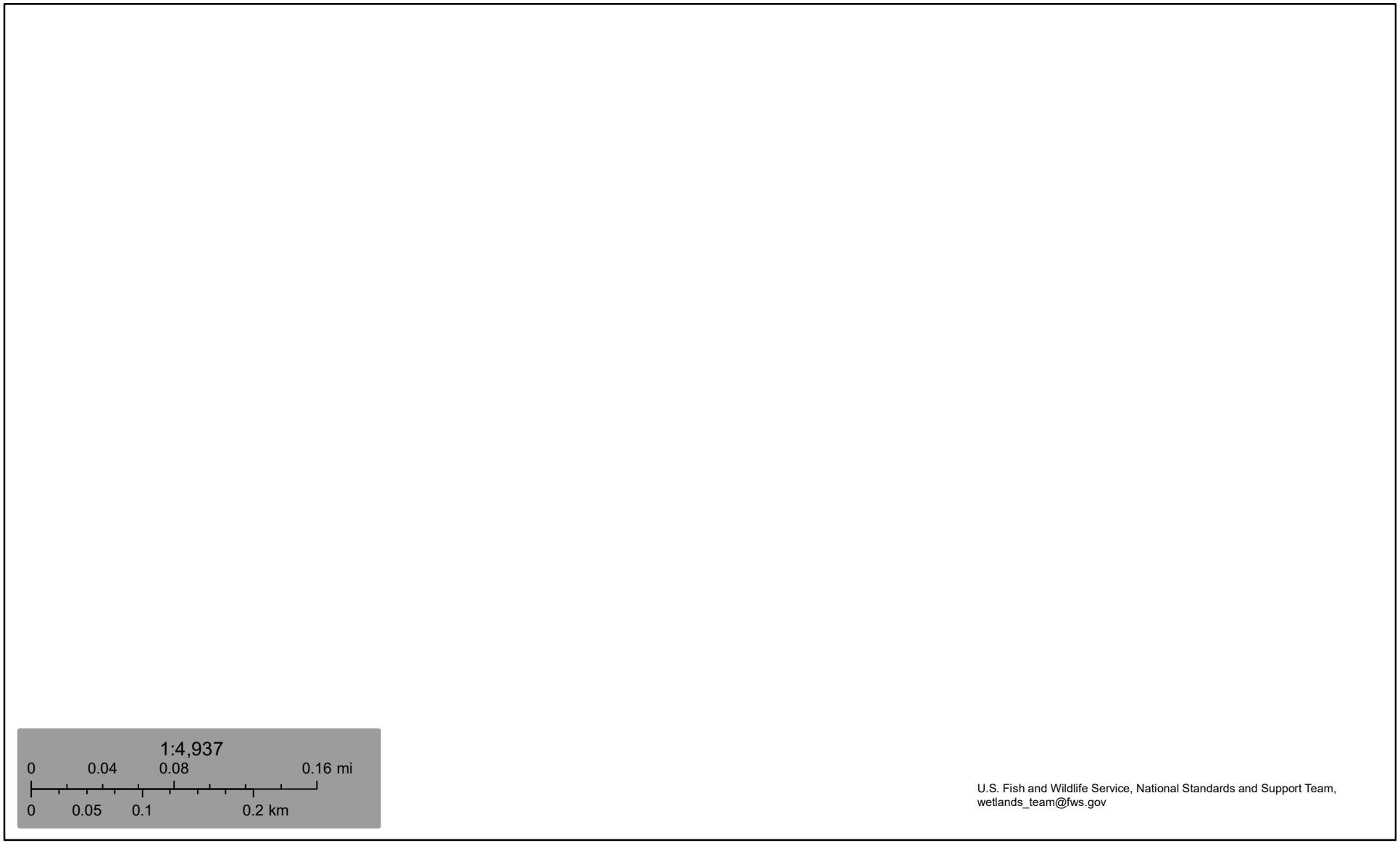
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/19/2024 at 11:19 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

[redacted]

NWI Map for Subject Property



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

September 20, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Appendix A – Photolog

Photo 1

Fuel canopy/pump islands facing N 10th Avenue.

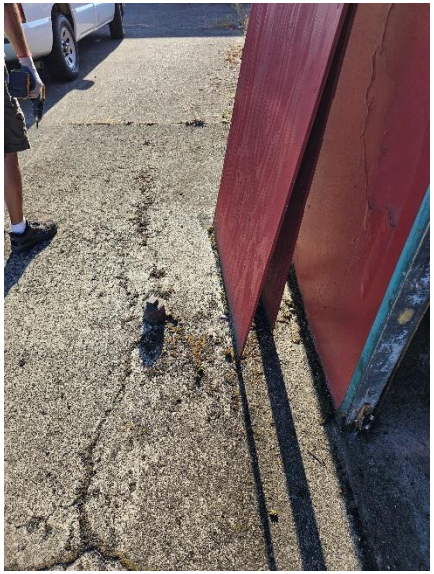
Photo 2

Bathroom/office shed.

Photo 3

Fuel canopy with kiosk area.

Photo 4



Sewer cleanout.

ERG	PRINT DATE: 9/13/2014	PROJECT MANAGER: Brook McKeown	PROJECT NAME: 1021 Baseline Street Property	APPENDIX C, PHOTO LOG Phase I Site Inspection
	PROJECT NUMBER: 0425.00.016.090	CREATED BY: Sedrek Kovar		

Photo 5

Office area inside shed.

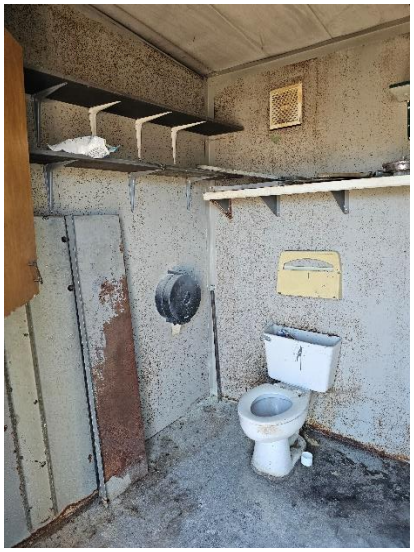
Photo 6

Electrical hookup in office.

Photo 7

Vent in office.

Photo 8



Bathroom next door to office.

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	PROJECT NUMBER: 0425.00.016.090	CREATED BY: Sedrek Kovar		

Photo 9

10k gallon (furthest away) and 3k gallon UST (facing S 10th Avenue)

Photo 10

8K unleaded UST (facing Baseline Street).

Photo 11

5k gallon Plus UST (facing railroad).

Photo 12

4k gallon Super UST (facing railroad, adjacent to bathroom/office shed).

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Photo 13

Spill/stain in front of pump on east side of the property.

Photo 14

Spill/stain in front of pump on west side of property.

Photo 15

Pump with electronics torn out.

Photo 16

Pump with front cover removed, exposing pump systems inside.

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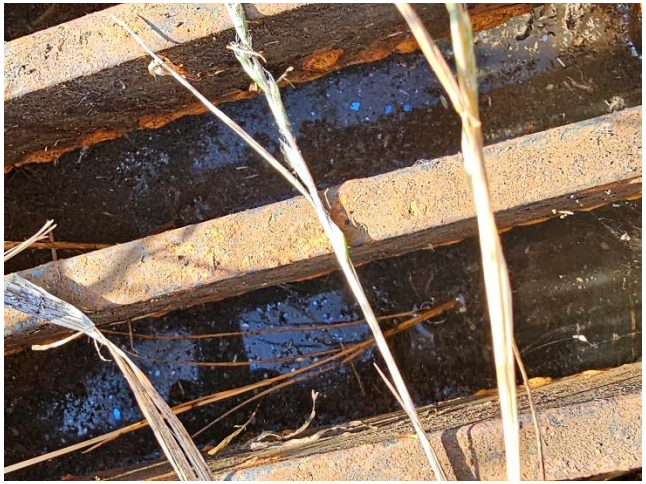
Photo 17

Drain on eastern side of property.

Photo 18

Drain on western side of property (dry, no liquid inside).

Photo 19



Iridescent stagnant water in eastern drain.

Photo 20

8k Unleaded UST with water in fill pipe.

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Photo 21

Monitoring well in parking lot.

Photo 22

Monitoring well in front of office/bathroom shed.

Photo 23

Kiosk area with plywood covering entrance.

Photo 24

Entrance of kiosk area, standing from outside.

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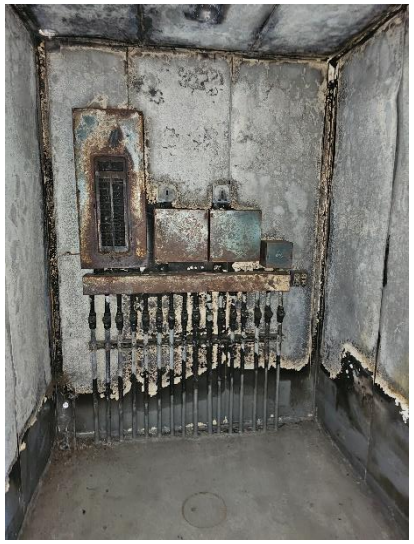
Photo 25

Burnt electrical work to left of kiosk entrance.

Photo 26

Vent in ceiling of kiosk area.

Photo 27



Burnt power box to the right of kiosk area.

Photo 28

Burnt electric heater in kiosk area.

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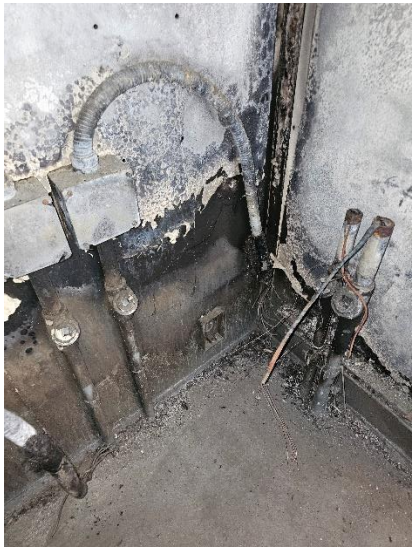
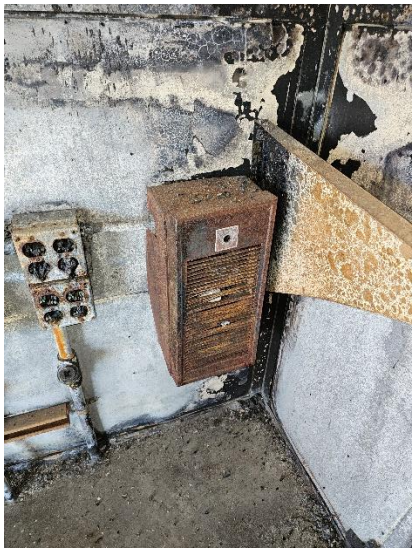
Photo 29



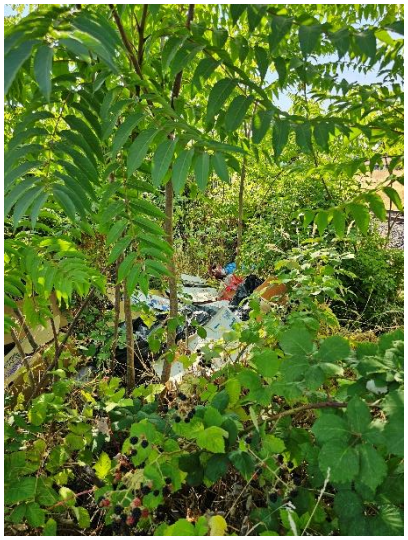
Burnt wiring in kiosk area.

Photo 30



Burnt outlets/heating unit in kiosk area.

Photo 31



Trash in bushes adjacent to railroad.

Photo 32

Transformer on northeast corner of property (PCB free).

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Appendix B –
EDR Report

Appendix C –
Other Information

Appendix D – Qualifications

Brook McKeown

Senior Chemical Engineer

Environmental professional with a decade of experience in site assessment, sampling, and compliance review.

- 12 years of experience conducting environmental site assessments, including making all appropriate inquiries under ASTM E1527-13, and compliance reviews for facilities.
- 8 years of experience managing project teams and effectively meeting deadlines on time and under budgets.

EDUCATION

B.S., Chemical Engineering, Washington University in St. Louis, 2012

EMPLOYMENT

Chemical Engineer, ERG, 2020 – Present

Managing Consultant, Ramboll, 2012-2020

CERTIFICATIONS AND TRAININGS

McCoy and Associates RCRA Trained

40-Hour HAZWOPER Training (29 CFR 1910.120(2)) Certified

RELEVANT PROJECTS

Region 10 Targeted Brownfields Assessment Support.

Client: EPA Region 10. Supporting EPA in streamlining site investigation and characterizing site conditions at brownfield sites in Region 10 by conducting targeted brownfields assessments (TBAs), including: conducting records reviews (e.g., Phase I and Phase II assessments, analysis of brownfield cleanup alternatives); performing environmental sampling; evaluating environmental testing data; identifying and evaluating potential cleanup options through Analysis of Brownfields Cleanup Alternatives (ABCA) reports; preparing reports and fact sheets to summarize and document findings; and uploading data into EPA's national brownfields database, Assessment, Cleanup & Redevelopment Exchange System (ACRES). As part of the Phase II assessments, managed multiple subcontractors to provide geophysical surveys, excavation, drilling, and hazardous building materials assessment support on tight schedules. Coordinated complex logistics associated with traveling to remote locations in Alaska for sampling and assessment work and insured that work was executed within project budgets per site. Provided community involvement support, where requested, including planning and assisting with community meetings, providing meeting materials and outreach to assist community leaders and other stakeholders to evaluate potential reuse and redevelopment scenarios for their communities impacted by brownfields sites. Prior to conducting site investigations, developed National Historic Preservation Act (NHPA) Section 106 consultations to State Historic Preservation Offices (SHPO) and Tribal Historic Preservation Offices (THPO) and worked with these groups to develop Inadvertent Discovery Plans.

Office of Civil Enforcement Risk Management Plan Support.

Client: EPA Headquarters. Managed Risk Management Plan (RMP) inspections and other enforcement support tasks for the Office of Civil Enforcement (OCE). Responsible for providing technical reviews and issuing deliverables on time as required by the contract. Managed funding and budgets for multiple tasks from EPA Headquarters, as well as from Regional EPA offices. Conducted inspections at facilities subject to RMP requirements, including ammonia refrigeration, water treatment, petroleum refineries and chemical manufacturing facilities.

Preparing Phase I Environmental Site Assessment and Limited Environmental Compliance Reviews.

Clients: Various Private Industry Clients. Conducted more than 50 Phase I environmental site assessments (ESAs) and limited environmental compliance reviews (LCRs) to identify potential or existing environmental contamination and regulatory compliance liabilities. Conducted assessments at sites with a variety of land uses, including, large industrial sites with extended site histories (e.g., chemical manufacturers, metal processors, etc.), commercial properties, hospitals, gas stations and agricultural properties. Identified potential sources of soil and groundwater contamination based on existing operations, historical uses of a property and/or environmental sampling data. Reviewed historical soil and groundwater sampling data to determine whether contaminants present were in exceedance of state or federal cleanup standards such that they presented a potential risk to human health or the environment.

Conducting Phase II Environmental Site Assessments.

Clients: Various Private Industry Clients. Conducted Phase II ESAs to identify the presence or absence of hazardous substances in the subsurface of the site. In addition to conducting the sampling, this work frequently involved developing health and safety plans (HASPs), preparing field notes, analyzing the results of the data collected and developing Phase II reports summarizing sampling data. Conducted routine low-flow groundwater sampling for trichloroethylene (TCE) at a Superfund facility located in Southwestern Missouri as part of the monitored natural attenuation remedial solution for the facility. Conducted groundwater monitoring of hexavalent chromium at an automotive electroplating facility in Southeastern Missouri to delineate groundwater contamination plumes. Collected surface soil samples of historical rail beds in Southern Missouri to evaluate the constituents present and determine what materials were used as a base for rail bed construction. Sampled groundwater and sub-slab vapor for TCE at a former ball-bearing facility located in Central Missouri. Coordinated sub-slab vapor sampling at nearby residential properties.

Environmental Compliance Support.

Clients: Various Private Industry Clients. Managed multi-facility and complex environmental compliance projects on behalf of clients to comply with Clean Air Act (CAA) and Emergency Planning and Community Right-to-Know Act (EPCRA) and other requirements. Supervised a team of over ten staff members to compile and submit annual EPCRA Tier II and Toxics Release Inventory (TRI) reports for more than 50 facilities concurrently, requiring strong communication and budget management. Managed a CAA Major Source Prevention of Significant Deterioration (PSD) facility expansion project for a natural gas electricity generating facility, which involved overseeing the development of a detailed regional source inventory and associated ambient air quality modeling.