



October 2023
Port of Longview Industrial Rail Corridor Expansion Project



NEPA Environmental Assessment

Prepared for Port of Longview

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Prepared for
Port of Longview
10 International Way
Longview, Washington 98632

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ABBREVIATIONS

ACE	annual chance exceedance
AJD	Approved Jurisdictional Determination
APE	Area of Potential Effect
BMP	best management practice
CAA	Clean Air Act
CARA	critical aquifer recharge area
CCC	Cowlitz County Code
CDID	Consolidated Diking Improvement District
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CI Addendum	<i>Site Setting Assessment Report Contamination Investigation Report Addendum</i>
CI Report	<i>Contamination Investigation</i>
CMMP	Contaminated Materials Management Plan
Corps	U.S. Army Corps of Engineers
Cowlitz County Landfill	Cowlitz County Tennant Way Landfill
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CSZ	Cascadia Subduction Zone
CWA	Clean Water Act
dBA	A-weighted sound level in decibel
dbh	diameter at breast height
DPS	distinct population segment
EA	Environmental Assessment
Eagle ILF Program	Eagle Electrocutation Prevention In-Lieu Fee Program
Ecology	Washington State Department of Ecology
EFH	Essential Fish Habitat
EGT	Export Grain Terminal
EJ	Environmental Justice
ELS	Ecological Land Services, Inc.
EO	Executive Order
EPIC	Environmental Planning Internet Clearance
ESA	Endangered Species Act
ESU	evolutionarily significant unit
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
Former Gun Club Area	historical Cowlitz County Gun Club property

FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GMA	Washington Growth Management Act
ICE	Infrastructure Carbon Estimator
IRC	industrial rail corridor
IRCE	Industrial Rail Corridor Expansion
IWOW	Industrial Way/Oregon Way Intersection Project
LMC	City of Longview Municipal Code
Log Pond	Pacific Fibre Products-owned Log Pond
LVSC	Longview Switching Company
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MARAD	Maritime Administration
MBTA	Migratory Bird Treaty Act of 1918
MT CO _{2e}	metric tons of carbon dioxide equivalent
MTCA	Model Toxics Control Act
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NHFP	National Highway Freight Program
NOA	Notice of Availability
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NRHP	National Register of Historic Places
Pacific Fibre	Pacific Fibre Products
PAH	polycyclic aromatic hydrocarbon
PBDE	polybrominated diphenyl ether
PCB	polychlorinated biphenyl
PHS	priority habitats and species
Port	Port of Longview
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
RCRA	Resource and Conservation Recovery Act
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan

SMA	Washington Shoreline Management Act
SMP	Shoreline Master Program
SR	State Route
SWCAA	Southwest Clean Air Agency
SWPPP	Stormwater Pollution Prevention Plan
Three Rivers WWTP	Three Rivers Regional Wastewater Authority wastewater treatment plant
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
UPRR	Union Pacific Railroad
USFWS	U.S. Fish and Wildlife Service
VdB	vibration decibel
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WGAWM Site	Willow Grove Advance Wetland Mitigation Site
WOTUS	water of the United States

1 Introduction

This Environmental Assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) (42 United States Code 4321 et seq.) and the Council on Environmental Quality (CEQ) 2020 Regulations for Implementing the Procedural Provisions of NEPA (Title 40 Code of Federal Regulations [CFR] 1500–1508), U.S. Department of Transportation (USDOT) Order 5610.1C (Procedures for Considering Environmental Impacts), and Maritime Administration (MARAD) Order 600-1. The purpose of this EA is to evaluate the potential impacts of implementing the Port of Longview Industrial Rail Corridor Expansion (IRCE) project (hereafter referred to as the Proposed Action) on the physical and human environment and determine if there would be adverse impacts requiring the preparation of an environmental impact statement.

The Port is a deep-draft, full-service port operating in Washington on the Columbia River approximately 66 miles upstream from the Pacific Ocean (Figure 1). The Port's eight marine terminals handle a variety of cargo, including dry bulk materials (e.g., grain, minerals, agricultural products), break-bulk commodities (e.g., steel, construction materials, pulp, paper products), and both general and specialty cargos (e.g., wind energy components, oversize industrial components). Rail service to the Port is currently provided primarily via the Port's industrial rail corridor (IRC; Figure 2). The IRC consists of a two-track rail line that was constructed in 2004 to provide a direct connection between the Port's existing marine terminals and the Class I mainline rail line that runs between Seattle and Portland. The IRC is connected to the Class I mainline rail via the Longview Switching Company's (LVSC's) Longview Switching Yard, which is adjacent to Tennant Way (Washington State Route [SR] 432) in Longview, Washington, and extends through existing industrial areas that include Port-owned lands and both private and publicly owned lands (Figure 3).

The Port's Proposed Action involves expanding the existing IRC to provide improved rail service to the Port's marine terminals. The Proposed Action includes construction of a six-track rail embankment adjacent to the current two-track rail corridor, lengthening of the existing two tracks by 1,000 feet for a total of 8,500 feet, and construction of two new 8,500-foot rail tracks. Additionally, construction will include new stormwater conveyance and treatment facilities, track operation systems, lighting, utility improvements, and rail crew support facilities (Figure 4). The Proposed Action also includes the acquisition of property from various public and private entities.

The Port received federal funding to implement the Proposed Action, which requires review under NEPA. Federal funding awarded to the Port for the Proposed Action includes a USDOT grant under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program and congressionally directed Fiscal Year 2022 Consolidated Rail Infrastructure and Safety Improvements (CRISI) program funds. The Port has also been awarded a USDOT Federal Highway Administration grant under the National Highway Freight Program (NHFP). The RAISE and NHFP grants are being

administered by MARAD and will be used to fund engineering design and construction of the Proposed Action. The CRISI grant is being administered by Federal Railroad Administration (FRA) and will be used solely for property acquisition to support the Proposed Action.

MARAD is the lead Federal agency for the oversight of the NEPA process for the Proposed Action. In accordance with the CEQ's implementing regulations for NEPA, a "lead agency" is defined as the agency (or agencies in the case of joint lead agencies) preparing or having taken primary responsibility for preparing the NEPA EA or environmental impact statement (40 CFR 1508.1(o)). FRA is a Cooperating Agency on the NEPA review. A cooperating agency is "any Federal agency (or a State, Tribal, or local agency with agreement of the lead agency) other than a lead agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action that may significantly affect the quality of the human environment" (40 CFR 1508.1(e)). In general, cooperating agencies are responsible for identifying, as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval needed for the project.

1.1 Description of Proposed Action

The Proposed Action will provide improved rail service to the Port's marine terminals, support their current tenant and customer rail needs, and prepare for projected growth. Construction includes build out of a six-track rail embankment (full embankment), two new 8,500-foot rail tracks, and associated infrastructure, including new stormwater conveyance and treatment facilities, track operation systems, lighting, utility improvements, and rail crew support facilities (Figure 4). The Proposed Action will also include the extension of the two existing IRC rail tracks by approximately 1,000 feet to a total length of 8,500 feet to better accommodate use by unit trains. Further, the Proposed Action includes the acquisition of property from various public and private entities to accommodate the expanded rail corridor. The Proposed Action is designed to address the Port's current operational barriers and will reduce both train idling time and local rail traffic congestion.

Construction of the Proposed Action includes all the components required to prepare the project site for development, including demolition of existing structures; relocation and reconstruction of existing utilities; modification of existing drainage features (e.g., drainage ditches, culverts); modification of existing stormwater facilities; and excavation, grading, and surcharge placement to prepare the alignment for the full embankment construction. It includes construction of the full embankment and two-track railbed that will support the expanded rail system. Facilities required to support operation of the Proposed Action, including track switches; gravel inspection and access roads; lighting; an air compressor system for train brake operation; a stormwater management system that includes stormwater infiltration trenches and a stormwater subdrain, pump system, and

infiltration basin (Appendix A); and rail crew support facilities, are also included in the analysis of construction impacts.

Construction of the full embankment under the Proposed Action will support future rail development; however, only two additional rail tracks are currently planned and evaluated in this EA. Future construction of the additional four tracks is not part of the Proposed Action and, therefore, not part of the federal grants awarded to the Port. Future development of the four additional tracks will depend on future customer growth and redevelopment of Port assets. Potential future rail expansion at the Port is addressed in Section 3.20 as a cumulative action. Construction of the full embankment is necessary because of geotechnical considerations and construction logistics. It is also necessary to limit disruption of neighboring industry and rail traffic, reduce environmental impacts, simplify rail line construction sequencing, and avoid duplication of costly design, engineering, and permitting efforts. Large portions of the proposed alignment are underlain by soft, highly compressible soils that will need to be pre-loaded (i.e., surcharged) prior to full embankment and track bed construction. Pre-loading the soil is required to induce accelerated soil settling and consolidation to provide a stable base for the new rail lines. Doing this separately for future construction would likely cause additional settlement and potential damage to the previously developed Proposed Action, as well as repeated disruptions to rail traffic and surrounding industrial operations.

In addition to construction work, the Proposed Action also includes compensatory mitigation to offset permanent impacts on jurisdictional waters, including wetlands, that would occur as a result of the Proposed Action. Compensatory wetland and open-water mitigation will be conducted consistent with applicable local, state, and federal regulatory requirements. Mitigation credits from the Port's Willow Grove Advance Wetland Mitigation Site (WGAWM Site) on the Columbia River, approximately 7 miles downstream of the project site, will be used to provide both wetland and open-water mitigation (Figure 5). Compensatory mitigation will also be provided for impacts on an existing, active bald eagle nest and nest tree along the shoreline of the Pacific Fibre Products (Pacific Fibre)-owned Log Pond (Log Pond) that will need to be removed to accommodate the Proposed Action. Those impacts will be mitigated by purchasing credits from the U.S. Fish and Wildlife Service's (USFWS's) Bald and Golden Eagle Electrocutation Prevention In-Lieu Fee Program (Eagle ILF Program).¹

1.2 Project Site

The project site or Proposed Action Area is within an approximately 156-foot-wide by 11,203-foot-long expanded rail corridor located along the same alignment as the existing IRC, with

¹ The Eagle ILF Program offsets eagle and eagle nest incidental take actions by retrofitting existing power poles in USFWS Eagle Management Units to reduce eagle electrocution potential (Eagle Electrocutation Solutions 2023).

some minor differences in height and side slopes from that alignment at the eastern and western ends (Figures 2 through 4). The Proposed Action will be constructed to the north of the IRC in the area between the existing tracks and the Log Pond. The Log Pond is an excavated pond that was constructed in the 1920s as a log storage pond for a former lumber mill. It is still used today by Pacific Fibre for log storage and stormwater treatment to support their wood chip and mulch production facilities. The Proposed Action will occur on land that is both currently owned by the Port or that is in the process of being acquired from various public and private entities (Figure 3).

1.2.1 Construction Activities

Construction of the Proposed Action is expected to take approximately 3 consecutive years and is currently scheduled to commence in summer 2024 with completion in late 2027. Proposed construction activities will include decommissioning of an abandoned groundwater monitoring well; decommissioning and relocation of existing active landfill monitoring wells; demolition of existing buildings and structures; excavation and grading for surface drainage maintenance, culvert installation, and utility line relocation/reconstruction; vegetation removal; fill placement for subgrade construction, soil surcharging, and the full embankment and track bed construction; modification of existing stormwater facilities; construction of new stormwater infrastructure; and installation of project supporting infrastructure. A summary table of the federal, state, and local permits that will be required to construct the Proposed Action is provided in Appendix B.

Construction will include work in uplands and in-water work in the Log Pond, wetlands that are both adjacent to and isolated from the Log Pond, and existing stormwater features. Construction work will also occur within the regulated floodplain of the Cowlitz and Columbia rivers. In-water work will involve both excavation and fill placement and requires special design and construction considerations due to the soft and compressible nature of underlying soils. In-water excavation will be limited and dependent on the water surface level of the Log Pond. This work will consist of extending drainage ditches to maintain the existing stormwater flow path. Construction of the proposed full railway embankment on those soils will require surcharging, which involves the temporary placement of fill material in excess of that needed for the full rail embankment construction to apply pressure on the underlying soils to accelerate consolidation and settlement.

In general, the construction process will proceed as follows:

- Decommissioning of a monitoring well no longer in use at the WestRock Lime Landfill
- Installation of construction erosion control measures
- Relocation and reconstruction of existing utility lines that occur in the project alignment, including existing electrical, water, and sanitary sewer lines
- Excavation and grading of areas adjacent to the new full embankment alignment to maintain surface drainage

- Decommissioning of existing Cowlitz County Tennant Way Landfill (Cowlitz County Landfill) monitoring wells located in the project alignment and establishment of new wells outside of the Proposed Action Area
- Removal of vegetation within the project alignment, including the removal of multiple trees
- Excavation and removal of topsoil and other materials unsuitable for the full embankment subgrade construction
- Construction of the project full embankment, which will include the following:
 - Placement of a reinforcing geotextile base layer
 - Placement of fill material to construct the full embankment subgrade
 - Placement and subsequent removal of surcharge material
 - Placement of material for the full embankment construction
- Installation of new culverts and extension of existing culverts under the new full embankment
- Removal of the existing switches that currently direct rail traffic into the IRC
- Installation of a new a single switch farther east and just west of the Cowlitz River rail bridge
- Extension of the existing IRC tracks by 1,000 feet to the new switch
- Installation of project supporting features and infrastructure (e.g., lighting, air compressor system, stormwater infiltration trenches, stormwater subdrain and pump system, and stormwater infiltration basin)
- Placement of subballast and ballast material to construct the track bed section and access roads
- Placement of railroad ties, rails, and other track elements (e.g., switches)

Construction equipment to be used for these activities includes excavators, bulldozers, loaders, backhoes, cranes, augers, pile drivers, directional boring machines, scrapers, graders, rollers/compactors, ballast tampers, track-laying machines, dump trucks, water trucks, equipment maintenance trucks, light-duty trucks, work boats/barges, portable generators, and portable lighting.

Overall, construction of the full embankment will require placement of approximately 530,000 cubic yards of various types of fill material (e.g., soil, gravel, ballast, quarry spalls, riprap) and up to 200,000 cubic yards of fill for surcharging the full embankment. A portion of the surcharge material will be removed and hauled off site following surcharge completion. Fill material will be placed at depths of between 5 and 25 feet in uplands, portions of the Log Pond, and wetlands. Approximately 12.5 miles of new railbed will then be constructed on top of the completed full embankment. New tracks will be spaced at 21 feet on center and separated by five 10-foot-wide inspection roads with two 13-foot-wide access roads along the outer edges of the corridor.

1.3 Purpose and Need

The Port is a deep-draft, full-service port on the Columbia River located approximately 66 miles upstream from the Pacific Ocean. The Port currently owns and operates eight marine terminals that

handle a variety of cargo including dry bulk materials (e.g., grain, minerals, or agricultural products), break-bulk commodities (e.g., steel, construction materials, or pulp and paper products), and both general and specialty cargos (e.g., wind energy components or oversize industrial components). The Port is strategically located at the intersection of the Columbia River, Interstate 5, and a Class I railroad mainline that is owned and operated by BNSF Railway Company (BNSF) with trackage operating right by Union Pacific Railroad (UPRR). This location makes the Port a major transfer point for rail shipment, with connection to shippers and customers in the Midwest via the Great Northern Corridor, an east-west artery of commerce that stretches between Chicago and the ports of the Pacific Northwest. However, the Port's current rail capacity for transferring goods and materials to these mainline railways is significantly limited, which affects the Port's ability to effectively serve its current tenants and restricts the future growth and use of Port-owned properties.

The overall purpose of the Proposed Action is to improve rail connectivity between the Port's marine facilities and the Class I mainline railroad to alleviate capacity constraints on the Port's current rail system, provide adequate and efficient rail service to support rail demands of the Port's current tenants and customers, and prepare for projected growth at the Port and in the surrounding areas.

The need for the Proposed Action stems from the pressure of an expanding global marketplace and limited rail infrastructure at the Port to meet that demand. There is increasing demand from tenants, bulk exporters, break-bulk importers, and Class I railroads for facilities capable of accommodating unit trains² of up to 8,500 feet in length for efficient delivery and processing of materials and products. Unit trains are desirable for management of bulk commodities (e.g., grain, soda ash) because they cut costs compared to manifest train³ delivery by reducing turn times and eliminating intermediate stops (BNSF 2018).

The IRC was constructed in 2004 to provide direct rail service between the Port and the Class I mainline railroad to the east. The increased growth and changing freight-handling needs of the Port's tenants and customers have all but exceeded the capacity of the IRC, especially its ability to handle unit trains. The existing IRC consists of two parallel tracks and is configured in a manner that does not support efficient unit train usage. The southern track is almost exclusively used to provide unit train service to the Export Grain Terminal (EGT) at the Port's Berth 9 (Figures 2 and 3), which receives approximately 600 unit trains per year. This leaves the northern track to provide manifest and unit train service to the remainder of the Port's facilities, tenants, and neighboring industrial users. Because of this limited capacity, inbound and outbound unit trains not servicing the EGT must be broken down into smaller cuts of railcars and stored in various locations in and around the Port

² Unit trains are trains that consist of one railcar type that carry large amounts of a single, high-volume commodity (e.g., grain, potash, or coal) and are shipped from the same origin to a single destination. They typically consist of 90 or more railcars and can be between 5,000 to 10,000 feet in length.

³ Manifest trains are made up of mixed railcar types (e.g., boxcars, tank cars, flat cars, gondola cars, or hopper cars) that carry a variety of goods and materials as opposed to a single bulk commodity.

until they can be unloaded. Currently, cuts of railcars of varying lengths are temporarily stored in multiple areas within the Port's internal track system and within the Longview Switching Yard, which has exceeded its capacity to efficiently manage current manifest and unit train volumes for Port facilities, tenants, and customers within their railyard (Figures 2 and 3). Breaking down trains requires multiple switching, maneuvering, and shunting operations by LVSC or Longshore Labor, which increases labor costs, switching engine use, and locomotive idling time while trains wait to be broken down or reassembled and decreases the Port's internal rail system capacity and the storage capacity within the Longview Switching Yard. These limitations result in the following conditions:

- Decreased railcar loading/unloading efficiency
- Reduced rail throughput via the Port's rail system network
- Increased rail traffic congestion within local and regional railyards and networks
- Increased logistical costs for the Port, tenants, and customers
- Increased greenhouse gas (GHG) emissions from locomotive idling and switching engine use

These conditions limit the ability of Port tenants and customers to grow their operations, stymie the Port's ability to fully utilize their marine terminal capacities, and restrict the Port's ability to redevelop underutilized marine assets. These conditions also limit the Port's ability to support the local and state economy and achieve their mission of promoting "commerce and economic development through strategic public investments for the benefit of our communities" (Port of Longview 2022).

Implementation of the Proposed Action will result in the following:

- Improved rail service to the Port's marine terminals, which will support their current tenant and customer rail demands as well as prepare for projected growth
- Increased operational efficiency of the Port's current rail system
- Increased ability of the Port to accommodate full-length unit trains and to meet the needs of customers who want to run cost-efficient unit trains directly to and from the Port's terminals
- Increased rail storage within the Port's internal rail system
- Reduced emissions from a decrease in train idling time
- Improved rail safety via reduced rail switching, maneuvering, and shunting operations

The Proposed Action will also expand freight capacity into and out of the Port and make it possible for the Port to achieve greater growth. These improvements will also benefit local and state economies. By design and statutory mandate (Title 53 Revised Code of Washington [RCW]), ports are economic drivers of the local and state economy. Improving rail capacity and connectivity between Port facilities and the mainline railroad will continue to provide local and regional economic growth by supporting the potential future expansion of the Port's cargo portfolio, redeveloping underused public assets (e.g., the former Cowlitz County Landfill), and creating new employment opportunities while enhancing existing jobs for the local economy.

2 Alternatives Considered

This section describes the No Action Alternative and the Proposed Action and defines the differences between the two. Other alternatives to meet the Port's purpose and need were also examined as part of a Clean Water Act (CWA) Section 404(b)(1) Alternatives Analysis that was prepared to support the Port's application to the U.S Army Corps of Engineers (Corps) for a CWA Section 404 Permit (Anchor QEA 2023). Those alternatives included renovating an existing lead track (Reynolds Lead) to accommodate unit trains and expand storage capacity within the Port; extending a new nine track rail corridor across the Log Pond and abandoning the existing IRC; and limiting the size of the proposed IRCE to a total of three additional tracks (five tracks total when combined with the existing IRC). Each of those alternatives was evaluated against a set of screening criteria, and each was ultimately eliminated for one or more of reasons related to their ability to meet the Port's purpose and need, their impact on the community and environment, or their practicability in regard to cost, existing technology, and logistics.

2.1 No Action Alternative

NEPA and CEQ implementing regulations require consideration and analysis of the No Action Alternative. Under the No Action Alternative, there would be no rail expansion and the Port would continue to use the existing two-track IRC as the primary rail connection between their marine terminals and the Class I mainline.

The No Action Alternative represents the conditions that are expected to continue without implementation of the Proposed Action. If no action is undertaken, the following beneficial effects of the IRCE project would not occur:

- Improved rail service to the Port's marine terminals and support of their current tenant and customer rail demands or future projected growth
- Increased operational efficiency of the Port's current rail system
- Improved ability of the Port to accommodate full-length unit trains and to meet the needs of customers that want to run cost-efficient unit trains directly to and from the Port's terminals
- Increased rail storage within the Port's internal rail system
- Reduced locomotive idling emissions
- Improved rail safety by reducing rail switching, maneuvering, and shunting operations

The No Action Alternative will not meet the purpose and need for the Proposed Action.

2.2 Proposed Action

The Proposed Action will meet the project's purpose and need by providing the following:

- Improved rail service to the Port's marine terminals, which will support their current tenant and customer rail demands as well as prepare for projected growth
- Increased operational efficiency of the Port's current rail system
- Increased ability of the Port to accommodate full-length unit trains and to meet the needs of customers who want to run cost-efficient unit trains directly to and from the Port's terminals
- Increased rail storage within the Port's internal rail system
- Reduced locomotive idling emissions
- Improved rail safety via reduced rail switching, maneuvering, and shunting operations

3 Existing Conditions, Environmental Consequences, and Mitigation

This section describes the existing conditions of the natural and built environment in the Proposed Action Area and surrounding areas to provide a baseline for analyzing potential impacts of the construction and operation of the Proposed Action. The overall footprint of the Proposed Action Area is approximately 54 acres. Within that area, the Proposed Action will require filling approximately 11.54 acres, or 10.7%, of open water in the 108-acre Log Pond and approximately 15.91 acres, or 26.5%, of the 60.1 acres of wetlands that occur in association with the Log Pond.

The sources used to characterize the existing conditions and the methods for analyzing impacts that may result from the construction of the Proposed Action are also included. The impact analyses consider direct, indirect, short-term, long-term, cumulative, adverse, and beneficial impacts. Mitigation measures beyond those already required as permit conditions or best management practices (BMPs) are also identified where necessary to reduce potential impacts.

As discussed in Section 1.1, construction will build out the full width and length of the proposed six-track embankment. Although the full embankment will be able to accommodate six new tracks, the Proposed Action only includes construction of two new rail tracks and extension of the two existing rail tracks in the IRC. It also includes the operation of the two new tracks and two extended IRC tracks. Potential effects associated with future build out of additional tracks in the new embankment are addressed under Section 3.20.

The No Action Alternative represents the conditions that are expected to continue without implementation of the Proposed Action and therefore is not discussed specifically within this section except where it is noted that the existing conditions may change over time without implementation of the Proposed Action.

3.1 Land Use

Information on existing land use, property ownership, zoning, and special land use designations for the Proposed Action Area and surrounding properties was obtained from the following sources:

- Cowlitz County Environmental Planning Internet Clearance (EPIC) online interactive map (Cowlitz County 2022a)⁴
- Cowlitz County Comprehensive Plan (Cowlitz County 2017a)
- Cowlitz County Comprehensive Plan Map – 2017 Plan Update (Cowlitz County 2017b)
- Cowlitz County, Washington Shoreline Master Program 2018 (Cowlitz County 2018)
- City of Longview Online Public Map (City of Longview 2022a)⁵
- City of Longview 2019 Comprehensive Plan (City of Longview 2019)
- City of Longview Shoreline Master Program (City of Longview 2015)
- Google Earth June 18, 2021, aerial photograph (Google Earth 2021)

Additional site- and project-specific studies and reports were also reviewed and are cited in the text where applicable.

The Proposed Action Area is adjacent to the Port's existing IRC within a heavy industrial setting (Figures 2 and 3). Existing adjacent land uses include a rail switching yard (Longview Switching Yard); a closed municipal landfill (Cowlitz County Landfill); an actively used log storage/stormwater pond (Log Pond); a former industrial waste disposal facility (Lime Fill Area); various pulp, paper, and wood product manufacturing facilities (e.g., Pacific Fibre, WestRock Company); a regional wastewater treatment plant (Three Rivers Regional Wastewater Authority wastewater treatment plant [Three Rivers WWTP]); a grain export terminal (EGT); and various industrial and commercial properties operated by the Port and others. The Proposed Action Area includes land that is both presently owned and operated upon by the Port and areas that are currently owned by others, including both public and private entities, that are in the process of being acquired by the Port.

The Proposed Action will occur on land that is under both Cowlitz County and City of Longview jurisdiction. For portions of the Proposed Action Area within the jurisdiction of Cowlitz County, the land use designation in Cowlitz County's Comprehensive Plan is "Economic Resource Lands – Industrial" (Cowlitz County 2017a). For portions of the Proposed Action Area within the jurisdiction of the City of Longview, the land use designations in the City of Longview's Comprehensive Plan include Industrial, Vacant, and Public/Quasi/Assembly (City of Longview 2019). The zoning classifications at the site are Heavy Manufacturing (MH) for parcels in Cowlitz County (Cowlitz County 2022a) and Heavy Industrial (HI) for parcels in the City of Longview (City of Longview 2022a). The current land

⁴ <https://cowlitz.maps.arcgis.com/apps/webappviewer/index.html?id=5f8bb5c362a449648606077d1fcbf764>

⁵ <https://longview-wa.maps.arcgis.com/apps/webappviewer/index.html?id=d51104244fc14c96880345ee77210cdf>

uses at the project site are industrial land uses and are therefore consistent with both Cowlitz County and City of Longview land use and zoning designations.

The Washington Growth Management Act (GMA; RCW 36.70A), requires all cities and counties in Washington to adopt land use regulations that are specifically intended to protect “critical areas” in order to preserve the natural environment, wildlife habitat, and sources of fresh drinking water. Critical areas include wetlands, critical aquifer recharge areas (CARAs), fish and wildlife habitat conservation areas,⁶ frequently flooded areas, and geologically hazardous areas.⁷ Critical areas are regulated by local critical areas ordinances under Chapter 19.15 of the Cowlitz County Code (CCC) and Chapter 17.10 of the City of Longview Municipal Code (LMC). Critical areas within the Proposed Action Area are addressed in the following sections:

- Geologically hazardous areas (Section 3.5)
- Wetlands (Section 3.7)
- Frequently flooded areas (Section 3.8)
- CARAs (Section 3.9)
- Fish and wildlife habitat areas (Sections 3.11 and 3.12)

In addition to critical areas, local jurisdictions have specific land use requirements for areas regulated as “shorelines of the state” under the Washington Shoreline Management Act (SMA; 90.58 RCW). As required by the SMA, both Cowlitz County and the City of Longview have developed and implemented state-approved Shoreline Master Programs (SMPs) to regulate shorelines in their respective jurisdictions (Cowlitz County 2018; City of Longview 2015). Although the shorelines of lakes more than 20 acres in size are regulated under the SMA and local SMPs, the 108-acre Log Pond is not considered a “shoreline of the state” by the Washington State Department of Ecology (Ecology). This determination is documented in a February 6, 2014, letter from the Ecology to the City of Longview Community Development Department (Ecology 2014).

3.1.1 Environmental Consequences

The Proposed Action is not expected to result in any impacts on land use. The Proposed Action will occur within and adjacent to an existing rail corridor that is surrounded by heavy industrial land uses.

⁶ Fish and wildlife habitat areas are defined by Cowlitz County in Cowlitz County Code (CCC) 19.15.050 as those areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements, including seasonal ranges, breeding habitat, winter range, and movement corridors, and areas with high relative population density or species richness. (CCC 19.15.050). According to the GMA (RCW 36.70A.030[5]), “fish and wildlife habitat conservation areas” do not include artificial features such as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.

⁷ Geologically hazardous areas are areas that because of their susceptibility to erosion, land sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns (RCW 36.70A.030[14]).

It will be similar to, and consistent with, those uses and will not interfere with or hinder the ongoing use of adjacent areas. Although portions of the Log Pond will be converted from log storage and stormwater treatment uses to rail corridor, those conversions will not noticeably reduce the capacity of the pond.

The Proposed Action will occur on land that will need to be acquired from three public and three private entities: Cowlitz County, Three Rivers Regional Wastewater Authority, and Cowlitz County Public Utility District (public); and Pacific Fibre, WestRock Company, and BNSF (private) (Appendix C). The Proposed Action will extend across areas that typically occur along the edges of these properties, so only the portions that occur in the proposed alignment would need to be acquired. Following any necessary relocation/reconstruction of various utilities, the acquisition of these properties for the Proposed Action would not adversely affect the operations or permanent facilities of any of the current owners.

Construction of the Proposed Action will require the demolition of the former Cowlitz County Landfill Transfer Building and associated structures on the portion of land to be purchased from Cowlitz County. That facility currently contains copies of the landfill closure documents that are required to remain on site under state law. To accommodate that requirement, Cowlitz County has stated that those documents will need to be relocated elsewhere on the portion of the landfill property that will be retained by the county.

In their acquisition of properties to support the Proposed Action, the Port will comply with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Relocation Act), as amended, and applicable federal environmental laws including those related to the timing of land acquisition activities relative to the environmental review process under 23 CFR 771.113. The Uniform Relocation Act provides direction on the process of acquiring property, as well as the process of compensating residents, businesses, or organizations that must be relocated. In addition, the Port will also abide by Washington's relocation assistance and real property acquisition policies included under RCW 8.26, Relocation Assistance-Real Property Acquisition Policy.

The Proposed Action is consistent with the land use districts assigned to the Proposed Action Area in the Cowlitz County and City of Longview comprehensive plans and with the current zoning designations assigned to the area under their respective zoning codes. As a result, the Proposed Action will have no impact on long-term land use planning or local zoning.

There are critical areas located within the Proposed Action Area that would be affected by the Proposed Action. All impacts on critical areas will be addressed through local permitting processes and mitigated appropriately in combination with both federal and state mitigation requirements.

More specific information about potential impacts to resources that are also regulated as critical areas is provided in Sections 3.5, 3.7, 3.8, 3.9, 3.11, and 3.12.

3.1.2 *Mitigation*

No additional mitigation for land use impacts is proposed beyond that which would be enforced by obtaining the required local land use approvals, including Critical Areas Permits under CCC 19.15 and LMC 17.10.

3.2 Section 4(f) Evaluation

Section 4(f) of United States Code Title 49, Transportation, protects publicly owned public parks, recreation areas, wildlife and waterfowl refuges, and significant historic sites from use by USDOT-funded projects. In addition, if a publicly owned area is used for the protection and sanctuary of wildlife, it is considered a refuge that is protected by Section 4(f) (USDOT 2022).

Information from the following sources was reviewed to determine if there are any potential 4(f) resources on or adjacent to the Proposed Action Area:

- Cowlitz County Parks and Recreation Department (Cowlitz County 2022b)
- Cowlitz County Comprehensive Parks, Habitat, and Recreation Update (Cowlitz County 2017c)
- City of Longview Parks and Urban Forestry Department (City of Longview 2022b)
- Washington Department of Fish and Wildlife (WDFW) Wildlife Areas interactive online map⁸ (WDFW 2022a)
- USFWS National Wildlife Refuge System: Our Facilities interactive map⁹ (USFWS 2022a)
- Cultural Resources Assessment (Appendix D)
- Google Earth June 18, 2021, aerial photograph (Google Earth 2021)

According to information from the Cowlitz County and City of Longview parks departments and aerial imagery from 2021, there are no publicly owned public parks or recreation areas in or adjacent to the Proposed Action Area. The nearest 4(f) public park in the vicinity is the City of Longview's Gerhart Gardens Park, which is located along the Cowlitz River approximately 0.16 miles to the northeast of the eastern terminus of the Proposed Action Area. That park is separated from the Proposed Action Area by a Class I rail line, SR 432, and the SR 432 interchange with Frontage Road and Dike Road. There would be no temporary, permanent, or constructive use of Gerhart Gardens Park as part of the Proposed Action.

Based upon review of USFWS and WDFW web resources and aerial imagery from 2021, there are no wildlife and waterfowl refuges within the project site or surrounding area. The closest such area,

⁸ <https://wdfw.wa.gov/places-to-go/wildlife-areas>

⁹ <https://www.fws.gov/our-facilities?type=%5B%22National%20Wildlife%20Refuge%22%5D>

WDFW's Nelson Wildlife Area Unit, is located along the Columbia River approximately 3.6 miles to the south of the Proposed Action Area.

Section 3.13 notes that there are no structures listed or eligible for listing on the National Register of Historic Places (NRHP) present within or adjacent to the Proposed Action Area.

3.2.1 Environmental Consequences

There are no properties within the Proposed Action Area or on adjacent properties that are eligible for protection under Section 4(f) of Title 49. Accordingly, the Proposed Action will not directly or indirectly affect any publicly owned parks or recreation lands, wildlife or waterfowl refuges, or historic properties. As such, there will be no impacts on Section 4(f) resources from the Proposed Action.

3.2.2 Mitigation

No mitigation is required or proposed because there will be no impacts on Section 4(f) resources.

3.3 Air Quality

The U.S. Environmental Protection Agency (USEPA) enforces federal air quality regulations. The federal Clean Air Act (CAA) of 1970, amended in 1990, authorized the establishment of National Ambient Air Quality Standards (NAAQS), set deadlines for their attainment, and established actions required of areas that exceed these standards. The criteria for air pollutants for which federal standards have been promulgated via NAAQS include ozone, carbon monoxide, suspended particulate matter, sulfur dioxide, nitrogen dioxide, and lead. Particulate emissions are regulated in the following two size classes: PM₁₀, which describes particles with diameters that are generally 10 micrometers and smaller, and PM_{2.5}, which describes particles with diameters that are generally 2.5 micrometers and smaller.

Under the CAA, states are required to monitor air quality. If measured data indicate that an area meets the NAAQS, the area is designated by USEPA as an "attainment area." Areas that do not meet the standards are designated as "nonattainment areas." For nonattainment areas, states must develop and follow a state implementation plan (SIP) to bring those areas back into attainment and to maintain compliance with NAAQS once attainment is achieved.

Ecology is responsible for developing the state's air quality regulations, developing a statewide SIP, and regularly monitoring air quality. In Washington, the responsibility for monitoring air quality and enforcing federal, state, and local air quality standards has been delegated to local clean air agencies. The Proposed Action Area is within a region overseen by the Southwest Clean Air Agency (SWCAA), which also regulates emissions sources (e.g., construction equipment) and fugitive dust levels. When

deemed necessary, SWCAA develops regional plans to reduce the emission of criteria pollution to acceptable levels.

The majority of Washington State, including the area regulated by SWCAA, which includes Cowlitz County where the Proposed Action Area is located, meets air quality standards and is in attainment for all NAAQS (USEPA 2023a; Ecology 2022a). As a result, implementation of the nonattainment and maintenance actions of the SIP is not currently required. Therefore, SWCAA does not have any specific plans requiring control of air quality in the Proposed Action Area.

Localized sources of emissions in the Proposed Action Area are generated by the industrial operations described in Section 3.1. Although these emissions are generally low, it is anticipated that emissions from rail traffic will increase over time without the implementation of the Proposed Action. This is because congestion due to inefficiency in operations under existing conditions is expected to worsen without implementation of the Proposed Action, as described in greater detail in Section 3.15.

3.3.1 Environmental Consequences

Construction of the Proposed Action will result in minor, short-term impacts on air quality from construction equipment emissions and fugitive dust. Demolition of an existing building and associated structures at the former Cowlitz County Landfill could also cause minor, short-term, local impacts on air quality. Operation is expected to result in reduced air quality impacts from rail operations and associated activities. Air emissions from the Proposed Action would not take Cowlitz County out of attainments with NAAQS.

Construction will occur largely within the Port's existing rail system, which is surrounded by other commercial and industrial uses. Construction is expected to occur over 3 years. Construction vehicles required to fully build out the Proposed Action are conservatively assumed to be diesel- or gasoline-fueled. Equipment to be used will include excavators, bulldozers, loaders, backhoes, cranes, augers, pile drivers, directional boring machines, scrapers, graders, rollers/compactors, ballast tampers, track-laying machines, dump trucks, water trucks, equipment maintenance trucks, light-duty trucks, work boats/barges, portable generators, and portable lighting. Construction activities are assumed to occur during the hours of 6:00 a.m. to 9:00 p.m. over 5 consecutive days per week. In addition, it is assumed that all equipment will be operating with standard emission controls in place as required by state and federal regulations for construction equipment. As such, air quality impacts are expected to be minor.

The Proposed Action will result in temporary, short-term emissions of some criteria pollutants, which are typically generated from construction equipment, truck, and vehicle exhaust. Fugitive dust will also be generated from the movement of construction equipment and trucks over dirt roads and

from earthwork operations (e.g., excavation, fill placement, grading). Construction activities will follow standard environmental controls and BMPs meant to reduce impacts on air quality, including using equipment that meets all applicable federal and state requirements, adhering to maintenance standards for all internal combustion engines, reducing the idling time of construction equipment, and implementing a dust control plan. Although emissions will occur, they will be temporary in nature and limited to the duration of the construction period. Overall, with the implementation of BMPs, construction impacts on air quality from vehicle emissions and fugitive dust are expected to be minor.

Demolition of the former landfill Transfer Building and associated structures also has the potential to release dust from the various building materials, including those that potentially contain asbestos or other hazardous materials. The Port has completed multiple hazardous materials studies (Appendix E) for the Proposed Action, including a regulated building materials inspection to identify such materials (Section 3.14). To address these issues, the Port has prepared a draft demolition specification that includes the pre-demolition removal and disposal of such materials. The Port will also be required to obtain the required permits for demolition from SWCAA and the local regulatory agencies and follow any BMPs required by those authorizations. As a result of these actions, impacts on air quality from demolition activities are expected to be minor.

As discussed further in Section 3.15, operation will increase rail efficiencies by building two new tracks to accommodate current demand. Constructing two new tracks will not increase rail traffic but will allow the Port to handle the unit and manifest trains they currently receive more efficiently and will reduce the need to repeatedly break up and shuffle trains throughout their facility and the Longview Switching Yard. This will decrease the time that trains will have to idle at the Port while they wait to be broken up or reassembled and will also decrease the use of smaller, diesel switching engines to shunt railcars around the rail system. This increased efficiency will result in a decrease in operational air emissions generated from the Port's rail system, which would be a beneficial effect of the Proposed Action.

3.3.2 Mitigation

No mitigation is proposed for air quality impacts because the Proposed Action is not anticipated to contribute to substantial increases in emissions or long-term degradation of air quality.

3.4 Climate Change

Global climate change primarily results from GHG emissions caused by several activities, including fossil fuel combustion, deforestation, and land use change. GHGs play a critical role in the Earth's energy budget by trapping infrared radiation emitted from the Earth's surface that would otherwise escape to space. Emissions of GHGs are responsible for the enhancement of the greenhouse effect and contribute to what is termed "global warming," a trend of unnatural warming of the Earth's

natural climate. Global warming is the increase in average global temperatures of the Earth's surface and atmosphere.

In 2016, CEQ released final guidance for federal agencies on how to consider the impacts of their actions on global climate change under NEPA in a memorandum titled "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews" (2016 Draft Guidance; Goldfuss 2016). The 2016 Draft Guidance was withdrawn on March 28, 2017, under the Trump administration via Executive Order (EO) 13783. The guidance was re-established under the Biden administration on February 19, 2021, via EO 13990. The 2016 Draft Guidance was replaced with the National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, which was published in the Federal Register (FR) on January 9, 2023 (88 FR 1196). However, since the 2016 Draft Guidance was in effect when this EA was being prepared, MARAD evaluated the project under the 2016 Draft Guidance.

The 2016 Draft Guidance encourages federal agencies undertaking NEPA review to follow the "rule of reason" and use their "expertise and experience" (Goldfuss 2016) to decide whether and to what degree an agency will analyze particular effects of GHG emissions. The 2016 Draft Guidance does not set standards or significance thresholds. In the absence of an adopted GHG standard, MARAD is not proposing a new standard for GHG emissions anticipated to result from the Proposed Action but, consistent with the 2016 Draft Guidance, is considering climate change and GHG emissions.

To determine the potential effects of construction of the Proposed Action on GHG emissions, a GHG emissions analysis was performed using the FHWA Infrastructure Carbon Estimator (ICE) Version 2.1. The ICE is a spreadsheet tool that estimates the lifecycle energy and GHG emissions from the construction and maintenance of transportation facilities at a planning and project level (ICF 2020). The results of that analysis provided a total annualized GHG emissions for the construction work. That estimate was then compared to reporting requirements of the federal Mandatory Greenhouse Gas Reporting Rule (74 Federal Register 56260).

Potential emissions from operations were assessed qualitatively.

3.4.1 Environmental Consequences

The Proposed Action will result in direct emissions of GHGs from diesel-powered equipment used during construction and operation, namely carbon dioxide from combustion engines. As a result, it will have an effect on the concentration of GHGs in the atmosphere. As noted in the previous section, GHGs are known to be a factor that contributes to climate change. However, due to the relatively short duration of the construction period, the effects of GHG emissions from construction of the Proposed Action on climate change are expected to be minor.

Direct effects of the Proposed Action on climate change include GHG emissions from machinery, equipment, and vehicles used during construction for such activities as demolition, excavation, grading, and fill placement. As discussed in Section 3.3.2, construction activities will follow standard environmental controls and practices to reduce impacts on air quality. Examples of such practices include use of equipment meeting all applicable federal and state requirements and ensuring that all equipment is properly maintained. Such measures will reduce GHG emissions by ensuring equipment is operating efficiently and that onboard emission control systems are functioning correctly.

Based on the results of the ICE analysis, construction of the Proposed Action will result in total annualized GHG emissions of 1,867 metric tons of carbon dioxide equivalent (MT CO_{2e}). All assumptions and summary results from the ICE analysis are included in Appendix F. To evaluate the Proposed Action's effects on climate change as indicated by the estimated GHG emissions, the results of the ICE analysis were compared to the emissions reporting limit of 25,000 MT CO_{2e} per year, as required by the Mandatory Greenhouse Gas Reporting Rule. The Proposed Action would therefore have a minor impact on climate change over the 3-year construction period.

As discussed in Section 3.3.1, operation of the two new tracks under the Proposed Action would increase efficiency of the rail operations and result in a decrease in operational air emissions and GHGs generated from the Port's rail system. This could result in a minor beneficial effect on climate change.

3.4.2 Mitigation

Although the Proposed Action's effect on climate change would be minor, several mitigation measures have been included to further reduce the potential for GHG emissions from construction equipment and to provide potentially trackable measures that can be incorporated into construction contracts, where applicable. The following mitigation measures will be implemented during construction:

- **Construction Idling Reductions:** The Port will include specifications in their bid contracts that require construction contractors to minimize idling time of construction equipment to 2 minutes where feasible. Exceptions include vehicles that need to idle to perform work (e.g., a crane providing hydraulic power to the boom), vehicles being serviced, or vehicles in a queue waiting for work (e.g., a dump truck waiting to be loaded).
- **Construction Equipment Maintenance:** The Port will require construction contractors to properly maintain all construction equipment powered by internal combustion engines. This requirement will also be incorporated into the bid contract specifications.

With the implementation of these mitigation measures, overall impacts on climate change from the Proposed Action are expected to be minimal.

3.5 Geology and Geologic Hazards

General information on the existing geologic resources and hazards in the Proposed Action Area were identified using the following sources:

- Washington State Department of Natural Resources (WDNR) Geologic Provinces of Washington website (WDNR 2022a)
- WDNR Washington Geologic Information Portal interactive map (WDNR 2022b)¹⁰
- Cowlitz County EPIC online interactive map (Cowlitz County 2022a)¹¹

Site-specific information was obtained from a March 2022 draft geotechnical report prepared for the Proposed Action by Hart Crowser (Appendix G). Other studies and reports were also reviewed and are cited in the text where applicable.

The City of Longview is largely within the Portland Basin geologic province, which is primarily composed of sedimentary rocks from the Upper Tertiary period, volcanic rocks from the Quaternary-Pliocene and Lower Tertiary periods, and unconsolidated Quaternary sediment deposits (WDNR 2022a). Both the Port and the Proposed Action Area are located in a portion of the Portland Basin that is primarily underlain by Quaternary unconsolidated sediment deposits and characterized by low-topographic relief (WDNR 2022a). Topography in the Proposed Action Area is generally flat to gently sloping with ground surface elevations varying between 10 and 20 feet North American Vertical Datum of 1988 (NAVD88; Appendix G). Existing surface cover includes areas of pavement and gravel in developed areas and open water and wetland or upland plant cover in undeveloped areas.

Geologic mapping of the Proposed Action Area indicates that the site is underlain by young silty and sandy alluvium of the Columbia River overlying bedrock. This can include sedimentary rocks of the Cowlitz Formation and potentially volcanic rocks of the Columbia River, Goble, or Grays River units (WDNR 2022b).

Geotechnical borings performed by Hart Crowser and others indicate that subsurface materials across the Proposed Action Area are deep with no bedrock detected within 200 feet of the existing ground surface (Appendix G). Subsurface materials identified in the Proposed Action Area during the site investigations included alluvial soils, landfill refuse, and undocumented fill materials, including concrete, wood, and logs in portions of the former Cowlitz County Landfill property (Figures 2 and 3). Geotechnical investigations show that most soils in the Proposed Action Area are compressible and susceptible to liquefaction during seismic loading. Deeper layers (80 feet or more) are not as compressible or susceptible. Overall, however, the potential for liquefaction throughout the

¹⁰ <https://geologyportal.dnr.wa.gov/2d-view#wigm?-14056695,-12882622,5727802,6320342>

¹¹ <https://cowlitz.maps.arcgis.com/apps/webappviewer/index.html?id=5f8bb5c362a449648606077d1fcbf764>

Proposed Action Area is high. Appendix G also states that between 1.5 and 2.5 feet of liquefaction-induced settlement could occur at the Proposed Action Area following an earthquake.

According to the draft geotechnical report (Appendix G), seismic activity at the project site is controlled by the Cascadia Subduction Zone (CSZ), which is approximately 365 miles to the west of the Proposed Action Area off the Washington coast. Earthquakes originating from the CSZ have the potential to cause major and highly damaging earthquakes throughout western and central Washington. Hart Crowser determined that approximately 41% to 60% of the total seismic hazard to the Proposed Action Area is from interface and interslab earthquakes originating from the CSZ. The WDNR Geologic Information Portal indicates that a seismic scenario that includes a magnitude 9.0 earthquake event originating from the CSZ would result in very strong to severe shaking as classified by the Modified Mercalli Intensity scale (WDNR 2022b). The remaining 59% to 40% of the total seismic hazard to the Proposed Action Area is from earthquakes originating from crustal faults (Appendix G). There are no mapped crustal faults in the Proposed Action Area (WDNR 2022b). The closest known crustal faults include the Portland Hills Fault and the Gales Creek Fault Zone, approximately 28 miles south and 38 miles southwest of the project site, respectively (Appendix G).

No other geologic hazards are identified for the Proposed Action Area by WDNR (WDNR 2022b).

3.5.1 Environmental Consequences

Construction of the Proposed Action will have minor impacts on soil resources in the Proposed Action Area. No bedrock will be excavated or removed as part of the Proposed Action, and no geological structures (e.g., faults, folds, fractures) will be disturbed. Existing soils will be affected by excavation, removal, fill placement, compaction, and surface grading and will have increased erosion potential. The majority of the soils in the Proposed Action Area have been previously disturbed by decades of industrial use and related activities, and many areas contain fill material. As such, the Proposed Action is unlikely to affect undisturbed soils or any soils that have unique or especially valuable characteristics (e.g., prime farmland soils). As discussed in Section 3.9.1, BMPs will be implemented to reduce the potential for soil erosion in areas of the Proposed Action Area where excavation, stockpiling, and fill activities will occur.

Under the Proposed Action, construction work will include the removal of existing soils that are unsuitable for rail line construction and the placement of various types of fill on top of remaining soils to construct the full rail embankment, trackbeds, and associated rail infrastructure. Portions of the proposed full embankment located in the Log Pond and its associated wetlands will be constructed on soft soils that are susceptible to settling, compaction, and liquefaction. To reduce the occurrence of these conditions, the proposed full embankment alignment will be surcharged prior to full embankment construction to accelerate soil settling and compaction and stabilize the underlying soils. In general, the surcharging process involves placing a layer of geotextile fabric over the existing

soil to promote stability, constructing a subgrade layer using stabilization fill materials including gravel and permeable ballast rock, then placing general fill material (possibly including sand from the Port's stockpile of Columbia River dredged material) on top of the subgrade to a specific design height. That material will then be left in place for 4 to 12 months depending on its location in the project alignment to facilitate soil settlement. The surcharge material will then be removed down to the subgrade design elevation. Additional fill will then be added in stages to construct the full embankment that will support the trackbed, rails, and other operational infrastructure (e.g., switches).

The surcharging process is designed to reduce the potential for potential geologic hazards associated with settlement, instability, seismic shaking, liquefaction, and ground rupture. The Proposed Action will comply with the applicable engineering standards and Port engineering criteria. As a result, the Proposed Action will not result in any impacts on geological hazards.

3.5.2 Mitigation

No mitigation for impacts on geological resources or geological hazards from the Proposed Action is proposed beyond the measures incorporated into the project design (described above) that will reduce the potential for erosion, soil settlement, and liquefaction.

3.6 Wild and Scenic Rivers

Washington State has approximately 70,439 miles of river, of which 197 miles, or 0.3%, are designated as wild and scenic (National Wild and Scenic Rivers System 2021). The closest wild and scenic rivers to the Proposed Action Area are the White Salmon River, located in the western foothills of Mount Adams in Washington, approximately 62 linear miles to the east; and the Sandy River, located east of Gresham, Oregon, approximately 50 linear miles to the southeast. A designated wild and scenic reach of the Klickitat River has a confluence with the Columbia River upstream of the Proposed Action Area, approximately 85 linear miles to the east. There are no wild and scenic rivers upstream of the Cowlitz River.

3.6.1 Environmental Consequences

Due to the long distances between the Proposed Action Area and designated wild and scenic rivers, there will be no impact on these natural resources from construction or operation of the Proposed Action.

3.6.2 Mitigation

No mitigation is proposed because no impacts on wild and scenic rivers will occur as a result of the Proposed Action.

3.7 Wetlands and Other Waters

Wetlands and other waters (e.g., rivers, streams, lakes, ponds) were delineated in the Proposed Action Area by Ecological Land Services, Inc. (ELS), in 2017, 2018, and 2019. The results of that study are presented in the report *Wetland Delineation Report: Industrial Rail Corridor Expansion*, which is included in Appendix H. As previously noted at the beginning of Section 3, the Proposed Action will include unavoidable temporary and permanent impacts on wetlands and other waters including permanently filling approximately 11.54 acres (10.7%) of open water in the 108-acre Log Pond. In addition, the Proposed Action will also include permanently filling approximately 15.91 acres (26.5%) of the 60.1 acres of wetlands present on the site.

Four wetlands (Wetlands A, B, C, and D) and one human-created surface water (Log Pond) were identified within the Proposed Action Area during that delineation (Figure 6). Wetlands A and C are emergent wetlands, Wetland B is an emergent and forested wetland, and Wetland D is a forested wetland. All are previously disturbed areas that are dominated by invasive species.

Of the identified wetlands, Wetlands A and B are directly adjacent to the Log Pond, and Wetlands C and D are isolated from the Log Pond and have no direct surface connection to any other waterbodies. Although the Log Pond itself was once connected to the Columbia River via a connector canal and a set of mechanical locks that were historically used to move logs from the river into the pond, those locks are no longer used, and the northernmost lock has been inoperable for decades.

Based on a June 5, 2018, Approved Jurisdictional Determination (AJD) issued by the U.S. Army Corps of Engineers (Corps; Appendix H), Wetlands A and B and the Log Pond are considered waters of the United States (WOTUS) subject to regulation under Section 404 of the Clean Water Act (CWA). Wetlands C and D are not considered WOTUS because they are located within depressions created by fill and construction activities and do not receive flows from or drain into any other wetlands or waters. Ecology does have jurisdiction over Wetlands C and D under the Washington State Water Pollution Control Law (RCW 90.48) and will require authorization for project activities in those wetlands through an Administrative Order. Local permits under the Cowlitz County and City of Longview Critical areas ordinances may also be required. A list of local jurisdictional permits that will likely be required for the Proposed Action can be found in Appendix B.

In a separate study conducted in 2019 and 2020, ELS also delineated the boundaries of four human-created surface waters that were specifically created to handle stormwater on Port-owned property. Those areas included the Finger Slough, Dewatering Pond, Black Lagoon, and Perimeter Ditch (Figure 6). The results of that study, including a description of these waterbodies, were documented in the report *Jurisdictional Waters Opinion: Finger Slough, Dewatering Pond, Black*

Lagoon, and Perimeter Ditch, which can be found in Appendix I. Based on a March 29, 2022, AJD issued by the Corps, none of those waters were found to be WOTUS.

Although the Proposed Action Area occurs near the confluence of the Columbia and Cowlitz rivers (Figures 1 and 2), neither of those rivers extends into the Proposed Action Area, and none of the wetlands and other waters identified in the Proposed Action Area have a continuous surface water connection to either of those rivers.

3.7.1 Environmental Consequences

The Proposed Action will result in unavoidable temporary and permanent impacts on federal and state jurisdictional wetlands and other waters (Table 1; Figure 7). Temporary impacts on Wetlands A and B will result during excavation to relocate drainage ditches and utility lines to provide temporary construction access for this work. Permanent impacts will occur as the result of placing fill material to construct the full embankment. Potential alternatives to avoid such impacts were analyzed in an alternatives analysis that was prepared in accordance with CWA Section 404(b)(1) as part of the CWA Section 404 Permit application (Anchor QEA 2023). That analysis looked at multiple alternatives to the Proposed Action including options that avoided wetland impacts by rehabilitating an existing rail line to provide an additional rail route into the Port or minimized wetland impacts by reducing the width of the full rail embankment within the Proposed Action alignment. An alternative that would result in increased wetland and open water impacts was also considered. The conclusion of that analysis was that there was no practicable alternative to the Proposed Action that would result in fewer wetlands impacts and still meet the Port's purpose and need.

Impacts on the Log Pond will include fill placement both above and below the typical water surface elevation of the pond (Table 1; Figure 7). In certain areas, this will reduce the area of open water. In other areas, the depth of the water will be reduced by up to 14 feet but will remain open water.

Temporary wetland impacts will reduce wetland area and functions for relatively short periods during construction of the Proposed Action. Permanent wetland impacts will eliminate wetland area and functions in the areas where those activities occur.

**Table 1
Summary of Temporary and Permanent Impacts on Federally Jurisdictional Wetlands and Other Waters from the Proposed Action**

Feature Name	Water of the United States?	Proposed Action Activity	Impact Area (acres)
Wetlands: Temporary Impacts			
Wetland A	Yes	Excavation for drainage ditch relocation and utility line reconstruction; temporary fill placement for construction access	1.09
Wetland B	Yes	Excavation for drainage ditch relocation	0.03
Total			1.12
Wetlands: Permanent Impacts			
Wetland A	Yes	Fill placement for full embankment construction	12.65
Wetland B	Yes	Fill placement for full embankment construction	2.99
Total			15.64
Other Waters: Temporary Impacts			
Log Pond	Yes	Excavation for drainage ditch construction	0.13
Total			0.13
Other Waters: Permanent Impacts			
Log Pond	Yes	Fill placement for full embankment construction above typical water surface elevation	8.81
Log Pond	Yes	Fill placement for full embankment construction below typical water surface elevation	2.73
Total			11.54

The Proposed Action will also result in permanent impacts on non-federally jurisdictional wetlands and other waters, including Wetlands C and D, the Finger Slough, and the Black Lagoon (Table 2; Figure 7). Impacts to Wetland C and D and the Black Lagoon will be from fill placement for the full embankment construction. Impacts on the Finger Slough will include excavation to increase its stormwater retention capacity and to install new stormwater conveyance infrastructure.

Table 2
Summary of Temporary and Permanent Impacts on Non-Federally Jurisdictional Wetlands and Other Waters from the Proposed Action

Feature Name	Water of the United States?	Proposed Action Activity	Impact Area (acres)
Wetlands: Permanent Impacts			
Wetland C	No	Fill placement for full embankment construction	0.004
Wetland D	No	Fill placement for full embankment construction	0.27
Total			0.274
Other Waters: Permanent Impacts			
Finger Slough	No	Excavation to increase depth	0.08
Dewatering Pond	No	Permanent fill placement	0.12
Black Lagoon	No	Permanent fill placement	0.06
Perimeter Ditch	No	Excavation to increase depth	0.01
Perimeter Ditch	No	Permanent fill placement	0.05
Total			0.32

3.7.2 Mitigation

In accordance with federal, state, and local permitting requirements under Sections 401 and 404 of the CWA, Section 90.48.260 of the Washington Water Pollution Control Act, and critical areas regulation under CCC 19.15 and LMC 17.10, the Proposed Action has undergone mitigation sequencing to avoid, minimize, and compensate for permanent impacts on both federal and non-federal jurisdictional wetlands. However, some temporary and permanent impacts are unavoidable and will require mitigation in compliance with those aforementioned regulations.

Unavoidable temporary impacts will occur in Wetlands A and B and the Log Pond. The proposed mitigation for these temporary impacts is to conduct restoration in place. Following completion of the construction activities that will cause temporary wetland impact, all temporary fills will be removed, and disturbed areas will be graded to at or below pre-construction contours. Wetlands will be replanted with native herbaceous species.

Permanent wetland impacts will be mitigated through the use of advance compensatory mitigation credits available at the Port's WGAWM Site. The WGAWM Site is located approximately 7 miles downstream of the Proposed Action Area along Coal Creek Slough, a tidally influenced side channel of the mainstem Columbia River (Figure 5). A copy of the *Mitigation Plan: Industrial Rail Corridor Expansion* that describes how the WGAWM Site will be used to compensate for wetland impacts from the Proposed Action is provided in Appendix J. Advance wetland mitigation ratios have been

calculated based on anticipated achievement of performance standards by the year 2023¹² when construction of the Proposed Action is anticipated to begin. Based on this, proposed compensatory mitigation for wetlands is expected to require the use of 40.92 acres of wetland preservation area and 65.30 acres of wetland enhancement area at the WGAWM Site. An additional 12.24 acres of wetland enhancement area will also be needed to compensate for impacts on the critical area buffers of Wetlands A and B.¹³ These wetland mitigation numbers are preliminary and will be finalized during the wetland permitting process.

Compensatory mitigation for open-water impacts is also proposed to occur at the WGAWM Site. Although the WGAWM Site does not have any designated open-water mitigation credits to directly offset the permanent open-water impacts proposed in the Log Pond, the wetland mitigation work at that site has and will continue to support functional enhancement of the adjacent open-water sloughs that flow through that site by increasing shading, wind protection, and food sources for fish, waterfowl, and other aquatic species. Such enhancements provide higher quality open-water habitat than the 11.54 acres (10.7%) of open-water areas that will be affected by the Proposed Action in the Log Pond, an artificial pond that is actively used for both log storage and industrial stormwater detention. Based on this rationale, the Port is requesting that an equivalent area of those open-water sloughs be recognized as providing a sufficient means of offsetting the proposed 11.54 acres of open-water impacts from the Proposed Action. This proposal is further supported by the fact that only 8.81 acres of the proposed impact area will involve total loss of open-water habitat in the Log Pond and that the remaining 2.73-acre impact area will continue to provide open-water habitat that will be shallower than it was before the Proposed Action.

With the implementation of the proposed mitigation approach, the Proposed Action will not result in any significant impacts on wetlands and other waters.

3.8 Floodplains

Cowlitz County maintains Flood Insurance Rate Maps (FIRMs), as required by the Federal Emergency Management Agency (FEMA), that describe flooding risk for various locations. The Proposed Action Area is within FIRM No. 53015C0681G, Panel 0681G, effective December 16, 2015 (Appendix K; FEMA 2015). That map indicates that all areas landward of the Log Pond (including Wetlands A, B, C, and D) are mapped as Zone X by FEMA. Zone X is identified as including three types of areas: 1) areas of 0.2% annual chance flood; 2) areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and 3) areas protected by levees from 1% annual

¹² The 2023 advance wetland mitigation acreage ratios for the WGAWM Site are being used because the 2024 ratios will not be approved until late 2024, after annual monitoring in June and August and subsequent agency review of the monitoring report. As such, the 2023 mitigation ratios will likely still be in effect when construction of the Proposed Action begins, and impacts occur in mid-2024.

¹³ Wetlands C and D are not included in this amount. Wetland C is too small to require a buffer, and Wetland D will be completed filled and eliminated, so no buffer mitigation is required by the local jurisdiction.

chance flood (FEMA 2015). Of those areas, the majority of the Proposed Action Area occurs within the area protected by a levee from a 1% annual chance of flooding. The levee system in this location is the Columbia River flood risk reduction levee, which is managed by Consolidated Diking Improvement District (CDID) No. 1 and provisionally accredited by the Corps.

The inundated portions of the Log Pond and Finger Slough, although inside the levee boundaries, are designated as Zone A, which is identified as a special flood hazard area subject to inundation by the 1% annual chance flood (FEMA 2015). The base map used on the FIRM shows the Log Pond as having a direct, open connection to the Columbia River through the historical connector canal and lock system in its southeastern corner and an open channel connection to a maintained drainage ditch identified as Ditch #5¹⁴ in its northwest portion. As noted in Section 3.7, the historical lock system is no longer used, and the northernmost lock has been inoperable for decades. The open ditch and piped outflow channel in the northwest portion of the Log Pond were blocked by Pacific Fibre in the early 1990s to allow use of the pond for stormwater retention. As such neither of these connections currently exists, isolating the Log Pond from flood flows carried by other waterways. Base map information used on the FIRM was derived from multiple sources during the time period between 1992 and 2006 (FEMA 2015), suggesting that it is showing historical and not current conditions.

3.8.1 *Environmental Consequences*

The Proposed Action would require permanent encroachment into FEMA flood Zones X and A. For projects that are proposed to occur in a base floodplain mapped by FEMA, EO 11988 and USDOT Order 5650.2 require that floodplain encroachment be avoided unless it can be demonstrated that location of the Proposed Action in the floodplain is the only practicable alternative. Given that the Port, and the Class 1 mainlines in the vicinity of the Port, are nearly entirely within mapped base floodplains, there is no practical alternative for building a connection between the two outside of the base floodplain. As a result, there is no practicable alternative to locating the Proposed Action in the floodplain.

Pursuant to EO 11988 and USDOT Order 5650.2, WEST Consultants, Inc completed a no-rise analysis for the proposed project. That analysis is included the *Memorandum: Regarding: Impact Assessment of Port of Longview Industrial Rail Corridor System* provided in Appendix L. As part of that analysis, a FLO-2D model was developed for the Proposed Action Area. FLO-2D software is a hydraulic numerical model used for determination of water surface elevations in riverine analysis meeting FEMA's minimum requirements for the National Flood Insurance Program and is nationally accepted for 1D unsteady flow and 2D steady/unsteady flow. The model evaluated the proposed full rail

¹⁴ The CDID No. 1 District Boundary and Ditches Map identifies that ditch as Ditch 3 (CDID No. 1 2009).

corridor embankment and culvert structures under the 1% annual chance exceedance (ACE) 24-hour and 72-hour flood events.

The results of the FLO-2D modeling were mapped to show the changes in flood elevations resulting from the Proposed Action and to identify potentially adverse flood impacts (Appendix L). The model concluded that the Proposed Action will not cause any increases in water surface elevations of the Log Pond for the 72-hour 1% ACE flood event, though the water surface elevation of the Log Pond for the 24-hour 1% ACE flood event could increase from 9.9 feet to 10.2 feet (a 0.3-foot difference), given potential increases in future precipitation amounts expected under climate change. This increase in water surface elevation in the Log Pond is independent of the Proposed Action. Additionally, changes in water surface elevation outside the levee will have no influence on water surface elevations in the Log Pond (WEST Consultants 2021).

3.8.2 Mitigation

As described in the draft *Port of Longview Industrial Rail Corridor Expansion Stormwater Management Plan* (KPFF 2022) and the IRCE stormwater management approach memorandum included in Appendix A, the Proposed Action design includes infiltration measures, such as permeable riprap throughout the entirety of the stormwater management facilities, to reduce ponding and flooding. Due to the infiltration system, additional design features described in the stormwater management plan, and no impact determination of the FLO-2D model, no floodplain effects from the Proposed Action are anticipated. No additional mitigation is proposed because there will be no impacts on floodplains.

3.9 Water Quality

This section describes water quality conditions for surface waters and groundwater in the Proposed Action Area.

The Proposed Action Area is located within the Grays-Elochoman Watershed (Washington Water Resource Inventory Area 25) of the Cowlitz River Basin, which eventually flows to the Pacific Ocean via the Columbia River. The Cowlitz River and Lower Columbia River flow past the Proposed Action Area approximately 0.2 mile to the east and 1.2 miles to the south, respectively, with the Cowlitz River merging with the Columbia River to the southeast of the Proposed Action Area. According to Washington Administrative Code (WAC) 173-201A-602, Ecology classifies these freshwaters suitable for primary contact recreation; salmonid spawning, rearing, and migration; water supply uses (e.g., domestic, industrial, agricultural, stock); and miscellaneous uses (e.g., wildlife habitat, harvesting, commerce/navigation, boating, aesthetics). There are no direct surface water connections that link the project site to the Columbia or Cowlitz rivers.

Sections of the Cowlitz River and Columbia River in the vicinity of the Proposed Action Area are listed on the CWA Section 303(d) list of impaired waters in Washington's current USEPA-approved Water Quality Assessment (Ecology 2016, 2022b). The Cowlitz River is listed for exceeding temperature parameters, and the Columbia River is listed for exceeding dissolved oxygen, temperature, and bacteria parameters. Polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and polybrominated diphenyl ethers (PBDEs), in addition to other toxins, have also been detected in Lower Columbia River water, sediment, and juvenile salmon tissue.

The Columbia River is hydraulically connected to the Proposed Action Area via groundwater recharge. As noted in Section 3.7, the Log Pond was once connected to the Columbia River via a connector canal and set of mechanical locks that were historically used to move logs from the river into the pond. Those locks are no longer used, and the historical surface water connection has not existed since closure of the upstream lock gate of the Log Pond in the 1980s. The Log Pond also previously outflowed to the north to CDID No. 1's Ditch No. 3 via a channel and piped outflow structure located in the northeastern portion of the pond. That connection was blocked in the early 1990s to allow Pacific Fibre to use the pond for stormwater retention. Because the Log Pond is not considered a surface water of the state under Washington's Waste Discharge General Permit Program (WAC 173-226), Pacific Fibre is not required to have an Industrial Stormwater General Permit for their discharges to the Log Pond (Ecology 1995, 2006, 2014). As such, Pacific Fibre has a vested interest in keeping the Log Pond isolated from other surface waters; otherwise, they would be required to obtain a stormwater permit. The Proposed Action has also been designed to avoid raising water levels in the Log Pond or adversely affecting its stormwater retention functions. Design considerations have included floodplain modeling (WEST 2021) to ensure that the Proposed Action would not cause a rise in the water surface elevation of the Log Pond and the inclusion of a stormwater management system that infiltrates 100% of the stormwater in the Proposed Action Area (Appendix A).

The majority of stormwater from Port facilities is collected and conveyed to the Finger Slough, a relatively narrow, rectangular body of water that is located at the western end of the Proposed Action Area (Figures 2 through 4 and 6). Along with the Dewatering Pond, Black Lagoon, and Perimeter Ditch, the Finger Slough is an integral part of the Port's industrial stormwater system. Although infrequent, during heavy precipitation events, water in the Finger Slough discharges into the Dewatering Pond, which flows to the Black Lagoon. From the Black Lagoon, stormwater is conveyed to the North Perimeter Ditch, which flows into CDID No. 1's Ditch No. 3 and eventually to CDID No. 1's Oregon Way Pump System, where it is ultimately pumped to the Columbia River. As noted in Section 3.7, the Corps has determined that the Finger Slough, Dewatering Pond, Black Lagoon, and Perimeter Ditch are all non-jurisdictional waters (i.e., not WOTUS) that are not subject to regulation under Section 404 of the CWA.

Cowlitz County's EPIC online interactive map does not show any Critical Aquifer Recharge Areas (CARAs) or wellhead projection areas within or adjacent to the Proposed Action Area (Cowlitz County 2022a). The closest CARA occurs approximately 1.2 miles to the northeast of the Proposed Action Area and the closest wellhead protection area is located approximately 1.7 miles to the northeast between I-5 and the Coweeman River. Both of those areas occur on the opposite side of the Cowlitz River from the Proposed Action Area. The closest federally designated sole source aquifer (SSA) to the Proposed Project Area is the Troutdale Aquifer Systems Area SSA (71 FR 52541), which is located approximately 16 miles upstream from the Proposed Action Area along the north side of the Columbia River in Clark County (USEPA 2023b).

Site specific information on groundwater resources in the Proposed Action Area and vicinity was obtained from a July 20, 2012, *CARA Level Two Hydrogeologic Assessment* prepared for the Port by Kennedy/Jenks Consultants (Kennedy/Jenks 2012). Based on that source, groundwater underlying the Port and Proposed Action Area occurs in both unconfined aquifers and confined aquifers occurring in alluvial deposits. The unconfined aquifers in the areas of the Port and Proposed Action Area are relatively shallow (ground surface to approximately 150 to 240 feet below ground surface) and occur in unconsolidated materials including interbedded sand, gravel, and silt. Confined aquifers are deeper and occur in consolidated alluvial deposits under confining layers of low permeable silt and clay deposits. These alluvial aquifers are typically recharged by precipitation but may also be recharged by the Columbia and Cowlitz rivers when the river stage is high.

The predominant groundwater flow direction within the assessment area is assumed to be south-southwesterly toward the Columbia River (Kennedy/Jenks 2012). Both the Log Pond and Finger Slough extend into the shallow alluvial aquifer (as evidenced by their permanent inundated conditions) and may influence the direction of groundwater flow, although groundwater interchange through the bottom of the Log Pond is likely limited by the layer of bark and woody debris that has been collecting on the bottom of the pond for decades. More shallow drainages such as the Perimeter Ditch do not appear to intersect the water table and remain dry between storm events.

A review of regulatory databases revealed that there are no known sites of groundwater contamination in the Proposed Action Area. However, there are sites on neighboring properties with past groundwater contamination that have undergone or are actively undergoing cleanup actions. Those sites are discussed in Section 3.14.

There are also areas where potential but unconfirmed groundwater contamination from past land uses could affect the water quality of both surface and groundwaters. Such areas include the former Lime Fill Area that extends across the central portion of the Proposed Action Area and the site of the historical Cowlitz County Gun Club property (Former Gun Club Area) located near the western end of the Proposed Action Area (Figures 8a and 8b). The Lime Fill Area is part of a property that contains a capped, unlined landfill that was used for the storage and disposal of lime-containing wastes

(e.g., boiler fly ash) from paper manufacturing. That landfill is outside of the Proposed Action Area to the south of the IRC (Figure 8c). Metals were previously detected in groundwater under that facility (Corps 1998). The Lime Fill Area went through the closure process and post-closure monitoring period in accordance with WAC 173-303-610(7)(b)(i) (Longview Fibre 2009). The Lime Fill Area is further discussed in Section 3.14.

The Former Gun Club Area was a shooting range that was mostly located on Pacific Fibre's property to the south of the IRC but extended across both the IRC and the Proposed Action Area. Previous investigations during IRC construction identified lead and carcinogenic PAHs at levels exceeding the Washington Model Toxics Control Act (MTCA) Method A industrial cleanup levels on that site (IT Group 2001). As a result, both lead and PAH-contaminated sediment was removed (PBS 2016). However, residual contamination was assumed to remain in concentrations below the MTCA Method A industrial cleanup levels.

To further investigate areas of suspected soil and groundwater contamination within the Proposed Action Area, the Port conducted soil and groundwater sampling in two general areas of the project site: 1) the proposed area where the Three Rivers WWTP sewer and water lines will be reconstructed, which is adjacent to a portion of the former Lime Fill Area; and 2) an area of known surficial soil contamination associated with the Former Gun Club Area, where excavation for culvert installation will occur (Appendix M). The soil and groundwater characterization included the collection of soil samples from the installation of five direct-push soil borings along the utility reconstruction corridor and eight near-surface hand trowel locations in the Former Gun Club Area. Six temporary wells were also installed to collect groundwater samples: five in the utility reconstruction corridor and one in the Former Gun Club Area. Samples were collected in August 2022 and sent to an analytical laboratory for analysis.

Laboratory results from groundwater sampling indicated elevated levels of arsenic in the location proposed for water and sanitary sewer line reconstruction. Arsenic concentrations in that location are below the MTCA Method A cleanup levels required by Ecology; however, they do exceed the MTCA Method B Cleanup Level for Groundwater established for construction worker safety. For the portion of the Proposed Action Area that overlaps the Former Gun Club Area, laboratory results showed high levels of lead concentrations in the near-surface soil and elevated concentrations of lead and arsenic in groundwater. Lead concentrations identified in near-surface soil are characterized as a Resource Conservation and Recovery Act (RCRA) D008 toxic hazardous wastes (dangerous waste in Washington State). In that location, lead in groundwater exceeds MTCA Method A Cleanup Level for Groundwater. and arsenic in groundwater exceeds both MTCA Method A and B Cleanup Levels for Groundwater.

3.9.1 *Environmental Consequences*

The Proposed Action has the potential to cause minor impacts on water quality in surface waters and groundwater in the Proposed Action Area. Because there are no direct surface water connections that link the Proposed Action Area to the Columbia or Cowlitz rivers, and all construction and operational stormwater will be managed either through on-site infiltration (Appendix A) or by routing through existing stormwater treatment chains, the water quality of surface waters outside the Proposed Action Area is unlikely to be affected.

During construction, there is a potential for direct, short-term impacts on local surface waters in the Proposed Action Area by sediment-laden runoff from areas where ground-disturbing activities (e.g., excavation, grading, fill placement, compaction, or trenching) will occur. Such impacts will be minimized through the implementation of erosion and sedimentation control BMPs included under the various local, state, and federal permits required for the Proposed Action. Such BMPs include required stormwater controls and construction BMPs of the Construction Stormwater General Permit that will be required for the Proposed Action under the state-administered National Pollutant Discharge Elimination System program, as well as the conditions of the CWA Section 401 Water Quality Certification that will be required for the project. As part of these authorizations, the Port will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) that details BMPs to reduce or prevent the number of pollutants discharged into WOTUS and ensures stabilization of the site after construction is completed. The SWPPP will be consistent with standards advised in the *Stormwater Management Manual for Western Washington* (Ecology 2019).

During operation of the Proposed Action, both surface and groundwater quality could be affected by the release of chemicals and other materials during potential railway derailments and spills. Methods to both prevent and handle such occurrences will be addressed by both Port and local agency spill response plans and teams. Spill risk assessment and response procedures will continue to be revised as necessary as rail operations progress beyond the Proposed Action. The Log Pond's current water volume may act as a hydraulic control that prevents contaminated groundwater north of the Log Pond from seeping into the Proposed Action Area (i.e., contamination seeps into the Log Pond instead of neighboring properties; PBS 2016).

3.9.2 *Mitigation*

To address the elevated levels of lead found in near-surface soil in the portion of the Proposed Action Area that overlaps the Former Gun Club Area, the Port will dispose of any soils excavated during construction and treat any groundwater generated during construction dewatering activities. Dewatering discharges will either be treated using an inline portable water treatment system or another appropriate method. Water treatment for dewatering discharges at the water and sanitary sewer line reconstruction area will not be required under the MTCA. Construction specifications will

be developed by the Port to provide information about the groundwater and soil analytical results so that construction contractors can make informed decisions about worker safety.

Potential impacts on water quality from operation of the Proposed Action will be mitigated through the implementation of the IRCE's stormwater management system, which is described in Appendix A. That system involves infiltrating stormwater that falls on the trackbed and inspection roads between the tracks directly through the ballast and subballast of the full embankment. Runoff from the gravel access roads that will run along the outer edges of expanded rail corridor will be handled in one of two ways depending on its location in the Proposed Action Area. For most of the Proposed Action Area, runoff from the gravel access roads will be routed into media filtration trenches that will run along the outer edges of the full embankment. Those trenches will consist of the combination of an infiltration trench and a sand filter. Runoff that enters those trenches will be allowed to percolate through the media and into the ground. For the portions of the expanded rail alignment that occur on the former Cowlitz County Landfill property where in situ infiltration is not recommended due to the underlying presence of extensive landfill refuse and construction debris, stormwater runoff will be collected via a network of subdrains that will convey the flow to a pump station. That facility will pump the collected runoff to a biofiltration swale at the southeast end of the Proposed Action Area, where it will be treated to basic water quality standards as outlined in Ecology's 2019 *Stormwater Management Manual for Western Washington* (Ecology 2019). Following treatment, stormwater will be routed into a large infiltration basin designed to infiltrate 100% of the runoff into the ground.

As mitigation for potential fuel or chemical spills from rail operation, the Port will incorporate the Proposed Action Area into its emergency response plan. Spill kits will also be positioned at either end of the corridor for potential spill response.

3.10 Vegetation Communities

Information on vegetation communities in the Proposed Action Area was obtained from site visits and the wetland delineation report (Appendix H). Information on general vegetation types and patterns was also obtained from aerial photography (Google Earth 2021).

Vegetation in the Proposed Action Area includes both wetland and upland vegetation communities. Both community types are generally dominated by invasive species intermixed with native and nonnative species. All species present on the site are common to the region; no rare or sensitive plant species are known to occur in the Proposed Action Area. Ornamental plantings are also present in the portion of the Proposed Action Area within the former Cowlitz County Landfill.

Wetland vegetation is primarily herbaceous with some forested areas present in the eastern portion of the Proposed Action Area (Wetlands B, C, and D). Scattered areas of scrub-shrub vegetation are also present in Wetland A. Typical herbaceous vegetation in wetlands includes reed canarygrass

(*Phalaris arundinacea*), yellow-flag iris (*Iris pseudacorus*), soft rush (*Juncus effusus*), floating primrose-willow (*Ludwigia peploides*), Canada thistle (*Cirsium arvense*), and creeping buttercup (*Ranunculus repens*). Dominant trees and shrubs in forested and scrub-shrub areas include black cottonwood (*Populus balsamifera* ssp. *Trichocarpa*), Oregon ash (*Fraxinus latifolia*), Sitka willow (*Salix sitchensis*), Nootka rose (*Rosa nutkana*), Himalayan blackberry (*Rubus armeniacus*), trailing blackberry (*Rubus ursinus*), and red-osier dogwood (*Cornus sericea*). Further details on wetland vegetative communities can be found in the wetland delineation report in Appendix H.

Upland vegetation includes herbaceous, scrub-shrub, and forested areas that support many of the same species found both in and around the edges of wetlands. Black cottonwood is the dominant tree and Himalayan blackberry the dominant shrub, with red elderberry (*Sambucus racemosa*) and common snowberry (*Symphoricarpos albus*) are also common. Herbaceous plants include a variety of common grasses and weedy forbs including reed canarygrass, red fescue (*Festuca rubra*), tall fescue (*Schedonorus arundinaceus*), common velvet grass (*Holcus lanatus*), bentgrasses (*Agrostis* spp.), bluegrasses (*Poa* sp.) perennial ryegrass (*Lolium perenne*), orchard grass (*Dactylis glomerata*), English plantain (*Plantago lanceolata*), Canada thistle, curly dock (*Rumex crispus*), common horsetail (*Equisetum arvense*), stinging nettle (*Urtica dioica*), Queen Anne's lace (*Daucus carota*), common mullein (*Verbascum thapsus*), and poison hemlock (*Conium maculatum*).

The Log Pond is primarily unvegetated open water, with areas of shallow water and emergent wetland vegetation along the southern edge into the middle. The open-water portions of the pond do contain some aquatic vegetation, primarily duckweed (*Lemna minor*). The southeast corner of the Log Pond contains both upland and wetland vegetation including forested areas dominated by black cottonwood and Sitka willow.

The Finger Slough and Black Lagoon contain open water with no observable aquatic vegetation. The Perimeter Ditch and Dewatering Pond are dominated by reed canarygrass. Uplands surrounding the Finger Slough, Black Lagoon, Dewatering Pond, and Perimeter Ditch are dominated by reed canarygrass, Himalayan blackberry, and Canada thistle. Those areas also contain trailing blackberry and common mullein.

3.10.1 Environmental Consequences

The Proposed Action will result in permanent and temporary impacts on vegetation in the Proposed Action Area. Much of this vegetation will be permanently replaced with the full new rail embankment and other project elements. Other areas will be temporarily disturbed to facilitate construction. Vegetation to be removed includes approximately 423 existing trees and 15 dead standing snags that range in size from 6 to 42 inches diameter at breast height (dbh). Tree removal will primarily occur in the central and eastern portions of the project site and will include the removal of trees from Wetlands B and D and their associated upland buffers. Tree removal will include the complete

removal of both aboveground and belowground portions (i.e., root wads). A tree containing a bald eagle nest will also be removed during this work and is further discussed in Section 3.11.

3.10.2 Mitigation

All vegetated areas that are temporarily disturbed will be mitigated via restoration in place. These areas will be reseeded with native seed mix to restore them to previous vegetative cover. As discussed in Section 3.7.2, compensatory mitigation for all permanent wetland and buffer impacts will be provided at the Port's WGAWM Site in compliance with any mitigation requirements under Section 404 of the CWA, the Washington Water Pollution Control Law, and local critical areas ordinances.

3.11 Wildlife

This section addresses wildlife species and habitat. Species under the protection of the Endangered Species Act (ESA), Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Stevens Act), and Migratory Bird Treaty Act of 1918 (MBTA) are addressed in Section 3.12. This assessment was based on a review of WDFW's priority habitats and species (PHS) database (WDFW 2022b) and incidental observations made during reconnaissance field visits over the course of completing the wetland delineations (2018 to 2022).

Wildlife diversity is generally related to the structure and composition of plant species within vegetative communities. In general, vegetation communities that contain few species or vegetative layers (herbaceous vegetation, shrubs, trees, vines, moss) support a lower diversity of wildlife, whereas vegetation communities that are more complex and contain a wide variety of plant species and vegetative layers can support a greater diversity of wildlife.

Almost the entire Proposed Action Area is composed of developed or previously disturbed areas in an urban-industrial environment. As discussed in Section 3.1, land uses primarily include existing and former heavy and light industrial lands and mixed-use commercial/industrial lands with limited habitat for wildlife. Wildlife use of the Proposed Action Area is generally limited to disturbance-tolerant species. The Proposed Action Area includes a combination of wetlands, non-wetland waterbodies that are primarily used as stormwater facilities, and upland areas that have been disturbed by historical and current industrial activities. Freshwater emergent wetlands and freshwater forested/shrub wetlands are the only habitats classified as PHS by WDFW that could be affected by the proposed work (WDFW 2022b).

Birds that may be present in or adjacent to the Proposed Action Area include various species of hawk (*Buteo* spp. and *Accipiter* spp.) and various songbirds and waterfowl. There is also an active bald eagle (*Haliaeetus leucocephalus*) nest near the existing IRC tracks. A great blue heron (*Ardea herodias*)

rookery is also present in a group of cottonwood trees located along the west side of the Finger Slough outside of the Proposed Action Area.

Small mammals that are typically associated with urban areas such as raccoons, opossums, squirrels, and mice are also likely present in and adjacent to the Proposed Action Area. A river otter (*Lutra canadensis*) was also recently observed using the connector canal outside of the Proposed Action Area. It is likely that amphibians, such as frogs and salamanders, and possibly some reptiles, including common turtle and snake species, use wetland habitats at the site. The Log Pond likely contains American bullfrog (*Rana catesbeiana*), an invasive species (Washington Invasive Species Council 2021). Other common frog species could also be present.

Warm-water non-native fish may occur in the Log Pond and Finger Slough. Anecdotal evidence suggests that bass (*Micropterus* spp.) could be present in both. Environmental conditions in the Log Pond do not correlate with the habitats required by salmon (*Oncorhynchus* spp.) or trout (*Salvelinus* spp.). Although salmon and trout species do occur in the Columbia and Cowlitz rivers, there is no direct connection to these rivers because the historical lock system is sealed, preventing any fish passage between the Log Pond and the Columbia and Cowlitz rivers.

3.11.1 Environmental Consequences

The Proposed Action will result in minor impacts on wildlife and wildlife habitat in the Proposed Action Area. To accommodate the expanded rail corridor, the Proposed Action will require the removal of the existing active bald eagle nest and the tree containing that nest. Important eagle areas, including nests and roosts, are protected by the Bald and Golden Eagle Protection Act. Activities involving the removal of an active bald or golden eagle nest or nest tree require an Eagle Nest Take Permit from USFWS. To facilitate this action, the Port applied for and received an Eagle Nest Take Permit from USFWS. That permit (Permit No. MBPER2718585) was issued on June 13, 2023, and is valid until December 31, 2024. It requires that nest and nest tree removal occur between September 1 and December 31 for each of the years that the permit is valid. The Port is proposing to remove the nest tree before November 30, 2023. The Port has purchased credits from the USFWS's Eagle ILF Program as compensatory mitigation for removal of the nest and nest tree.

In an August 18, 2023, comment letter received during the EA Notice of Availability (NOA) period,¹⁵ WDFW stated that it was their preference for the bald eagle nest tree to remain on the landscape and for construction activities to occur outside of the nesting season. If it is not possible for the nest tree to be retained, WDFW requested that the Port contact them for further guidance on tree removal and the associated permit requirements.

¹⁵ The Port previously posted the draft EA on their website for a 30-day NOA period extending from July 21 to August 20, 2023, during which the public could inspect and comment on the EA.

The great blue heron rookery located along the west side of the Finger Slough is outside of the Proposed Action Area and will not be directly affected by the Proposed Action. No new tracks are proposed in the vicinity of the rookery, and the western terminus of the Proposed Action will be located approximately 0.25 mile away from the rookery. In their comment letter, WDFW noted that this distance meets the buffer recommendations in their *Management Recommendations for Washington's Priority Habitats and Species: Great Blue Heron* (Azerrad 2012) and requested that the Port ensure that this buffer is not reduced by the Proposed Action.

Construction of the Proposed Action could affect wildlife through removal and loss of existing habitat within the Project Action Area from such activities as vegetation clearing, excavation, grading, and fill placement. These activities could affect both upland and aquatic wildlife species. As previously noted in Section 3.7, the Proposed Action will remove approximately 10.7% of the 108-acre open-water Log Pond and 26.5% of its 60.1 acres of associated wetlands, including both herbaceous and forested wetland areas. However, the majority of each of those habitat types will remain following construction and will continue to support wildlife species that currently use the Proposed Action Area.

In their August 18, 2023, comment letter, WDFW noted that the proposed tree and snag removal from the edge of the Log Pond may cause impacts on cavity-nesting birds and waterfowl. In Washington, cavity-nesting ducks are considered a Priority Species, and standing snags greater than 20 inches dbh are considered a Priority Habitat Feature. WDFW stated that the proposed removal of approximately 423 trees and 15 dead standing snags of between 6 to 42 inches dbh from the edge of the Log Pond under the Proposed Action has the potential to negatively impact cavity-nesting bird species by reducing the availability of nesting habitat near the Log Pond. To compensate for potential impacts, WDFW recommended installing snags and waterfowl nest boxes around the edge of the Log Pond.

Construction and operation of the Proposed Action will also include temporary increases in noise, light, and human presence, which could result in avoidance behavior by some wildlife species. Existing habitat in the Proposed Action Area is already limited by the developed nature of the surroundings and the dominance of non-native vegetation. This urban-industrial environment provides relatively low-quality habitat for wildlife, and the wildlife that are likely to be present are those that are relatively tolerant of disturbance. Because of this and the fact that the majority of the Log Pond and its wetlands will continue to exist, the overall impact of the Proposed Action on wildlife habitat is expected to be minor.

There will be minor impacts on wildlife from operation of the Proposed Action. Those impacts will be related to disturbance from human activities (e.g., human presence during crew changes, maintenance activities) and from rail operations (e.g., noise, vibration, light, emissions). Those impacts are not expected to be significant given that the wildlife species that currently use the

Proposed Action Area and surrounding areas are accustomed to disturbance from rail operations occurring along the existing IRC and from other industrial activities on adjacent properties, which have been occurring for decades. The types and levels of disturbance that will occur with operation of the Proposed Action will essentially be the same. As such, wildlife accustomed to such conditions are expected to continue to use the Proposed Action Area and surrounding areas during operation of the Proposed Action.

3.11.2 Mitigation

The Port has been issued an Eagle Nest Take Permit from USFWS under the Bald and Golden Eagle Protection Act for the removal of the bald eagle nest and nest tree. Compensatory mitigation for eagle impacts is being provided through purchase of mitigation credits from the USFWS's Eagle ILF Program. The Port has provided WDFW with a copy of this permit and the transaction receipt for the purchase of mitigation credits from the Eagle ILF Program. WDFW has acknowledged that retention of the nest tree is not possible, that the Port has obtained the correct permit for its removal, and that appropriate compensatory mitigation has been provided.

Although PHS mitigation is not a state-regulated requirement, the Port is working with WDFW on habitat enhancement measures to compensate for potential project impacts on cavity-nesting bird habitat. Those measures involve installing native shrubs, waterfowl nesting boxes, and snags in various locations around the Port-owned Finger Slough in lieu of adding such measures to the Log Pond. WDFW agrees that performing mitigation at the Log Pond is not a viable option and that performing mitigation at the Finger Slough will provide a benefit to the species. WDFW's assistance in siting locations for installation will ensure conformance with their published PHS management recommendations. Installation of the habitat-enhancement measures will be conducted prior to the completion of the IRCE construction.

As noted in their August 18, 2023, comment letter, WDFW stated that the 0.25-mile buffer between the great blue heron rookery and the Proposed Action Area will meet their buffer recommendations but cautioned that that buffer should not be reduced. After a site visit with the Port, WDFW acknowledged that the Proposed Action would not impact the rookery.

3.12 Threatened and Endangered Species, Essential Fish Habitat, and Migratory Birds

This section addresses animal and plant species listed as threatened or endangered under the ESA and their designated critical habitat. The potential effects of the Proposed Action on Essential Fish Habitat (EFH) as indicated in the Magnuson-Stevens Act are also addressed. In addition, this section also addresses potential use of the Proposed Action Area by migratory bird species protected under the MBTA and the potential effects of the Proposed Action on those species.

For this section, a larger analysis area identified as the Area of Potential Effect (APE) was evaluated. The ESA Analysis Area included the Proposed Action Area plus those areas within a 0.5-mile radius to capture all areas that may be directly or indirectly affected by the Proposed Action and interrelated actions (Figures 2, 3, and 5).

Information on ESA-listed species that have the potential to occur in or adjacent to the Proposed Action Area was obtained from the USFWS Information for Planning and Consultation system (USFWS 2022b) and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries) Species Directory for ESA Threatened and Endangered Species (NOAA Fisheries 2022a). Table 3 lists the ESA-listed species identified during those queries. The status and location of their critical habitat is also noted.

Table 3
Endangered Species Act-Listed Species and Critical Habitats Evaluated for Potential Effects

Species	ESU/DPS	Federal Status	Critical Habitat
Fish			
Chinook salmon (<i>Oncorhynchus tshawytscha</i>)	Lower Columbia River ESU	Threatened 08/02/1999	Designated 09/02/2005
	Upper Columbia River Spring Run ESU	Endangered 08/02/1999	Designated 09/02/2005
	Snake River Spring/Summer- Run ESU	Threatened 04/22/1992	Designated 10/25/1999
	Snake River Fall-Run ESU	Threatened 04/22/1992	Designated 12/28/1993
	Upper Willamette River ESU	Threatened 08/02/1999	Designated 09/02/2005
Chum salmon (<i>Oncorhynchus keta</i>)	Columbia River ESU	Threatened 08/02/1999	Designated 09/02/2005
Coho salmon (<i>Oncorhynchus kisutch</i>)	Lower Columbia River ESU	Threatened 06/28/2005	Designated 03/25/2016
Steelhead trout (<i>Oncorhynchus mykiss</i>)	Lower Columbia River DPS	Threatened 06/17/1998	Designated 09/02/2005
	Middle Columbia River DPS	Threatened 08/02/1999	Designated 09/02/2005
	Upper Columbia River DPS	Threatened 06/17/1998	Designated 09/02/2005
	Snake River Basin DPS	Threatened 06/17/1998	Designated 09/02/2005
	Upper Willamette River DPS	Threatened 08/02/1999	Designated 09/02/2005
Bull trout (<i>Salvelinus confluentus</i>)	Lower Columbia River DPS	Threatened 06/10/1998	Designated 10/18/2010

Species	ESU/DPS	Federal Status	Critical Habitat
Eulachon (<i>Thaleichthys pacificus</i>)	Southern DPS	Threatened 04/13/2011	Designated 10/20/2021
Green sturgeon (<i>Acipenser medirostris</i>)	Southern DPS	Threatened	Designated 11/09/2009
Mammals			
Columbian white-tailed deer (<i>Odocoileus virginianus leucurus</i>)	Columbia River DPS	Threatened 10/13/2016	Not Designated
North American Wolverine (<i>Gulo gulo luscus</i>)	N/A	Proposed Threatened	Not Designated
Birds			
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	N/A	Threatened 09/28/1992	Designated 05/24/1996
Streaked horned lark (<i>Eremophila alpestris strigata</i>)	N/A	Threatened 10/03/2013	Designated 10/03/2013
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Western United States DPS	Threatened 10/03/2013	Designated 4/21/2021
Insects			
Monarch butterfly (<i>Danaus plexippus</i>)	N/A	Candidate	Not Designated
Plants			
Golden paintbrush (<i>Castilleja levisecta</i>)	N/A	Threatened 06/11/1997	Not Designated

The NOAA Fisheries Essential Fish Habitat Mapper for the Pacific Council Region (NOAA Fisheries 2022b) was also consulted for information on the presence of designated EFH for the species listed in Table 3. That mapping indicates that both the Lower Columbia-Clatskanie and Cowlitz watersheds provide EFH for Chinook and coho salmon and that the Columbia River and lower portion of the Cowlitz River provide EFH for West Coast groundfish. West Coast groundfish include more than 90 different types of roundfish, flatfish, rockfish, sharks, and skates that live in the Pacific Ocean off the West Coast (NOAA Fisheries 2023b). Although the Log Pond is included in the NOAA Fisheries EFH mapping units for all of those species, it has no direct surface water connection to any waterbodies that support Chinook or coho salmon or groundfish, nor does it provide any suitable habitat for such species. The EFH Mapper Report generated by the NOAA EFH Mapper for the Proposed Action Area (Appendix N) states that there is no EFH, Habitats of Particular Concern, or EFH Areas Protected from Fishing identified in that location.

The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by USFWS (USFWS 2022c). Bird species protected under the MBTA are listed in 50 CFR 10.13 and include nearly all migratory birds that are native to the United States. The MBTA implements four international conservation treaties that the

United States has with Canada, Mexico, Japan, and Russia (and the subsequent amendments to those treaties) to ensure the sustainability of migratory bird populations shared with those nations (USFWS 2022c).

The Proposed Action Area is known to be used by migratory birds and is located within the Pacific Flyway, a broad migratory corridor extending from Alaska to Central America that is used by waterfowl, eagles, hawks, falcons, songbirds, sandhill cranes (*Antigone canadensis*), and shorebirds (WDFW 2018). Waterbodies, such as the Log Pond and its associated wetlands, and trees within the Proposed Action Area provide some nesting and foraging habitat for migratory birds, as do other areas in the vicinity. Migratory birds known to use the Proposed Action Area include various species of hawk (*Buteo* spp. and *Accipiter* spp.), multiple types of songbirds (suborder Passeri), and various waterfowl (suborder Anseres). Bald eagles, which also occur on the site, are considered migratory birds, and are protected under both the MBTA and the Bald and Golden Eagle Protection Act. A list of migratory birds that could potentially use the Proposed Action Area was obtained from the Avian Knowledge Network's (AVN) Rapid Avian Information Locator (RAIL) tool and is included in Appendix O. Appendix O also includes a list of migratory birds considered to be USFWS Birds of Conservation Concern¹⁶ that was obtained from USFWS's IPaC system.

3.12.1 Environmental Consequences

No potential effects on ESA-listed species are expected to occur from construction or operation of the Proposed Action. A detailed discussion of the rationale for that conclusion is documented in the No Effect Determination analysis provided in Appendix P. As part of that analysis, a pre-consultation meeting was held with USFWS staff on December 1, 2022, to review the identified species and discuss potential impacts based on the Proposed Action and the habitat types present in the Proposed Action Area and the larger APE (McReynolds and English 2022).

The following sections describe the rationale used to make the No Effect determinations for each of the ESA-listed threatened and endangered species shown in Table 3:

- **Listed Fish Species:** ESA-listed fish species that have the potential to occur in the APE include five Chinook salmon evolutionarily significant units (ESUs), one chum salmon ESU, one coho salmon ESU, five steelhead trout distinct population segments (DPSs), bull trout, eulachon, and green sturgeon (Table 3), all of which are either known to occur or have the potential to occur in the Lower Columbia, Cowlitz, and Coweeman rivers.
 - **Effect Determination: No effect** based on the following rationale:

¹⁶ Birds of Conservation Concern are identified by USFWS as migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent our highest conservation priorities based on population abundance and trends, threats on breeding and nonbreeding grounds, and size of breeding and nonbreeding ranges (USFWS 2021a).

- There is no surface connection between the Proposed Action Area and the Columbia, Cowlitz, or Coweeman rivers.
 - There are no listed fish species present in the Log Pond because the historical lock system acts as a surface water barrier between the Log Pond and the Columbia River, precluding any fish passage into the Log Pond from the river.
 - All stormwater runoff from the Proposed Action will be handled on site either via infiltration through the trackbed and underlying the full embankment or through collection and conveyance to a biofiltration swale and larger infiltration basin (Appendix A); no stormwater will be discharged to any off-site waters, including those containing listed species.
 - During the December 1, 2022, meeting, USFWS agreed that the Proposed Action will not affect bull trout or bull trout critical habitat because no work is proposed to occur in the Columbia or Cowlitz rivers and no off-site discharge of stormwater will occur (McReynolds and English 2022).
 - The Proposed Action will have no effect on designated EFH for Chinook or coho salmon because no work will occur in the Columbia or Cowlitz rivers and no stormwater will be discharged to those waters or any of their tributaries.
 - The Proposed Action will have no effect on designated critical habitat in the Columbia, Cowlitz, or Coweeman rivers for any of the ESA-listed fish species shown in Table 3.
- **Listed Mammal Species:** ESA-listed mammal species that have the potential to occur in the Proposed Action Area include the Columbian white-tailed deer (*Odocoileus virginianus leucurus*), a species whose preferred habitat includes a mosaic of small, deciduous forested stands with open understory intermixed with grassy fields and tidal marshes or streams (Azerrad 2016).
 - **Effect Determination: No effect** based on the following rationale:
 - Current habitats present in the Proposed Action Area lack the preferred level of cover and forage areas, as well as access, for Columbian white-tailed deer.
 - Existing industrial development on other properties adjacent to the Proposed Action Area, as well as the presence of SR 432, the Longview Switching Yard, and the Class I main rail line, affect ambient noise levels and hinder natural movement for Columbian white-tailed deer.
 - Although construction activities proposed as part of the Proposed Action will lead to short-term increases in noise levels, long-term noise levels in the APE are expected to remain similar to existing levels of industrial noise in the area and are not expected to impact the use, migration, or movement of Columbian white-tailed deer that may

occur in other portions of the APE outside of the Proposed Action Area (e.g., Anchor Point).

- During the December 1, 2022, meeting, USFWS agreed that, based on the habitats present in the Proposed Action Area, its location in an existing industrial landscape, and the presence of surrounding ongoing industrial activities, the Proposed Action Area has low to no likelihood of providing suitable habitat for Columbian white-tailed deer (McReynolds and English 2022).

- **Listed Bird Species:** ESA-listed bird species that have the potential to occur in the Proposed Action Area include marbled murrelet (*Brachyramphus marmoratus*), yellow-billed cuckoo (*Coccyzus americanus*), and streaked horned lark (*Eremophila alpestris strigata*).
 - **Effect Determination – Marbled Murrelet: No effect** based on the following rationale:
 - Marbled murrelets nest in mature and old-growth forest where large branches or other suitable platforms exist on the trees for nesting, and they forage on small fish and invertebrates in open but somewhat sheltered marine waters (Carter 1984); such nesting and foraging habitat does not exist in or adjacent to the Proposed Action Area or within the wider APE.
 - Designated critical habitat for marbled murrelets does not occur in or in the vicinity of the APE.
 - **Effect Determination – Yellow-Billed Cuckoo: No effect** based on the following rationale:
 - Preferred habitat for yellow-billed cuckoos includes wooded areas with dense cover and water nearby, including woodlands with low, scrubby vegetation; overgrown orchards; abandoned farmland; and dense thickets along streams and marshes (USFWS 2022d). In western North America, yellow-billed cuckoos typically nest in willows along streams and rivers and use nearby cottonwoods as foraging areas. WDFW reports that yellow-billed cuckoos display a strong preference for large, continuous riparian zones with cottonwoods and willows (WDFW 2022c).
 - Existing forested habitat in the Proposed Action Area is quite small in size and unlikely to support yellow-billed cuckoos because that species typically requires larger forested stands.
 - During the December 1, 2022, meeting, USFWS agreed that the forested areas present along the shoreline of the Log Pond that would be removed under the Proposed Action are unlikely to support yellow-billed cuckoos because that species typically requires larger forested stands (McReynolds and English 2022).

- **Effect Determination – Streaked Horned Lark: No effect** based on the following rationale:
 - Preferred habitat for streaked horned larks consists of generally flat, wide-open spaces that have a relatively high percentage (17% on average or greater) of bare ground, sparse low-growing (generally less than 13 inches high) vegetation with few to no trees or shrubs, and an open landscape free from visual obstructions, with preferred sites typically having 300 acres or more of such conditions (USFWS 2021b).
 - Vegetation in the Proposed Action Area and larger APE does not currently contain streaked horned lark preferred habitat because vegetation is not managed to provide clear sight distances for nesting activity.
 - During the December 1, 2022, meeting, USFWS noted that streaked horned larks are known to be in the general area; that the project is proximate to known nesting sites on Howard Island, Rannier Bar, and Anchor Point; and that birds are more free to roam between sites than other species (McReynolds and English 2022).
 - However, USFWS also noted that existing (baseline) site conditions in the Proposed Action Area and wider APE do not seem to provide suitable nesting habitat for streaked horned larks, with the former Cowlitz County Landfill possibly being the most attractive site feature; overall, there is a low risk of streaked horned larks using the area for nesting (McReynolds and English 2022).
 - USFWS stated that there could be a higher potential for nesting streaked horned larks to be attracted to the bare soil exposed during the construction period, especially during the 3- to 6-month surcharging period when little to no construction work would be occurring in those areas (McReynolds and English 2022).
 - USFWS acknowledged that the overall risk of streaked horned larks using the site during construction is very low and could be further reduced by implementation of dissuasion measures during the construction period to make bare soil areas less attractive to streaked horned lark nesting (e.g., irregular surface grading, placement of multiple parallel rows of silt fencing; McReynolds and English 2022).
- **Listed Plant Species:** One ESA-listed plant species was identified by USFWS as potentially occurring in the APE: Golden paintbrush (*Castilleja levisecta*).
 - **Effect Determination: No effect** based on the following rationale:
 - Natural populations of golden paintbrush are typically found in upland prairie habitats with near-bedrock or clayey alluvial soils and high light availability (USFWS 2019).
 - Golden paintbrush is a poor competitor and is intolerant of shade cast by taller plants, especially non-native species; on many sites, plant survival is dependent on

periodic disturbance to reduce woody encroachment and maintain relatively open conditions (USFWS 2019).

- Most of the undeveloped portions of the Proposed Action Area and wider APE are vegetated with near monocultures of grasses, weedy forbs, and non-native invasive species that are only periodically (if at all) mowed.

Given the lack of suitable habitat within or adjacent to the Proposed Action Area, construction and operation of the Proposed Action is expected to have no effect on the species listed in Table 3. Additionally, the Proposed Action will have no effect on designated critical habitats for those species because no critical habitats are present on the site.

Because there is no EFH mapped in or adjacent to the Proposed Action Area and the Proposed Action will not discharge any stormwater to waters in the vicinity that contain EFH (i.e., Columbia and Cowlitz Rivers), the Proposed Action will have no effect on EFH for any fish species.

The Proposed Action will remove aquatic, wetland, and terrestrial habitat within the Proposed Action Area that may be used for nesting by migratory birds protected under the MBTA. However, the amount of habitat that will be lost is relatively small compared to the extent of similar, and in many cases higher quality, habitats existing in the vicinity of the Proposed Action Area. The Proposed Action will only affect approximately 10.7% of the 108-acre open-water Log Pond and 26.5% of its 60.1 acres of associated wetlands. The remainder of those areas will continue to provide habitat for migratory birds, including waterfowl, songbirds, and raptors. Because suitable habitat will continue to exist within and adjacent to the Proposed Action Area, the Proposed Action is expected to have only minor impacts on migratory birds.

3.12.2 Mitigation

As noted in Sections 3.11.1 and 3.11.2, the Port has been issued an Eagle Nest Take Permit by USFWS and intends to remove the bald eagle nest and nest tree before November 30, 2023. The Port has purchased credits from the USFWS's Eagle ILF Program as compensatory mitigation for removal of the nest and nest tree. The Port will continue to coordinate with USFWS to determine whether a future permit may be required under the MBTA¹⁷ and to identify any specific measures that may be required for the protection of migratory birds. Those actions will occur after the NEPA process is complete and any specific mitigation measures will be identified as part of the permitting process.

¹⁷ At the date of EA publication, USFWS did not have a permitting mechanism in place for incidental take of nesting MBTA species. During previous coordination with USFWS staff on the Proposed Action, it was noted that they are currently working on a new rule that would include reporting requirements for projects that have the potential to result in incidental take of MBTA species.

To ensure that the Proposed Action does not inadvertently create streaked horned lark habitat during construction, dissuasion methods will be used to discourage nesting. This may include silt fencing blinds or hummocks created from the pre-loading soils.

3.13 Cultural and Tribal Resources

Cultural resources include archaeological sites, historic structures, objects, and landscapes that are historically significant (listed or eligible for listing in the NRHP). Some NRHP-eligible cultural resources may also be significant to tribes as Traditional Cultural Properties.

A *Cultural Resources Assessment* (Appendix D) was prepared to evaluate the potential for cultural resources in the Proposed Action Area. The assessment was also completed to support consultation under Section 106 of the National Historic Preservation Act. Section 106 consultation is described in Section 4. The evaluation reviewed the environmental and cultural context of the Proposed Action Area to identify the historic, archaeological, and tribal resources that could be present.

There are no recorded archaeological sites or historic structures within 0.5 mile of the Proposed Action Area (also referred to as the APE in Appendix D). However, precontact¹⁸ sites, including deeply buried sites, could be present in the vicinity. During coordination between the Port and the Cowlitz Indian Tribe, whose traditional territory included the Proposed Action Area, the cultural sensitivity of the area was noted.

Historically, the Proposed Action Area would have been low-lying and likely occasionally flooded prior to filling for industrial use, so archaeological materials might include resource-gathering items such as fish weirs or isolated artifacts. Other types of sites, present during different conditions, may be deeply buried. Historic materials related to the early development of the Long-Bell Lumber Company lumber mill and associated development may also be present.

Thick fill and high levels of disturbance have occurred within the Proposed Action Area and surrounding areas. Three previous archaeological surveys in the vicinity have revealed fill to at least 3 to 4.25 feet deep and deeper in some locations. Recent geotechnical work in the Proposed Action Area revealed widely varying depths of fill ranging from 0 (i.e., no fill) to up to 15 feet below ground surface. Fill was found to be the thickest at the eastern end of the Proposed Action Area in the portion of the site occupied by the former Cowlitz County Landfill. Fill placed for industrial development (e.g., sand and gravel, dredged spoil, engineered fill) along wetland margins of the Log Pond was typically thin or nonexistent. In the remainder of the project site, historically placed fill is typically 3 to 6 feet thick. This is consistent with the landform history of excavation of the Log Pond

¹⁸ Prior to Euroamerican contact.

from an existing lowland area, filling to create dry land for industrial use, and construction and use of the former landfill.

The Proposed Action will tie into the existing rail system, which includes the Longview, Portland and Northern Railway rail spur that has been determined NRHP eligible (Historic Property No. 680893). However, that segment of track is not within the Proposed Action Area.

3.13.1 Environmental Consequences

The Proposed Action has limited potential to impact cultural resources. There are no recorded archaeological sites or historic structures in the Proposed Action Area. The cultural sensitivity of the area has been noted, but no specific Traditional Cultural Properties have been identified.

Due to the cultural context of the Proposed Action Area, there is a potential to encounter otherwise unknown archaeological resources. Ground disturbance for the Proposed Action will primarily include clearing and grubbing, excavation, and fill placement. Clearing and grubbing will extend up to 3 feet below ground surface and is unlikely to encounter native sediments except in limited areas near the Log Pond where fill is shallow to nonexistent. Excavation for utility relocation/reconstruction, construction of the full railroad embankment subgrade, and installation of associated stormwater infrastructure and culverts will extend up to 10 to 15 feet below ground surface. Because much of the excavation related to utility relocation/reconstruction will occur in areas that were previously disturbed when the existing utilities were installed, the potential to encounter undisturbed sediments and archaeological resources in those locations will be low. For other portions of the project that will require deeper excavation in areas with more limited past disturbance, there is a higher potential to encounter native sediment and possibly undocumented archaeological resources. It is suspected that many of the areas located directly adjacent to the Log Pond contain sediments that were disturbed in the past when the pond was constructed. Similar to existing utility corridors, those areas are less likely to contain undocumented archaeological materials.

Implementation of an Inadvertent Discovery Plan will ensure that potential impacts from the disturbance of previously undocumented resources are addressed. The Inadvertent Discovery Plan outlines procedures that the Port and its contractors will perform in the event of the discovery of archaeological materials or human remains during construction or operation of the Proposed Action.

3.13.2 Mitigation

Implementation of an Inadvertent Discovery Plan will ensure that any potential impacts from the disturbance of previously undocumented resources are addressed.

3.14 Hazardous Materials

The Proposed Action is in an area with a long history of current and past industrial use. As a result, there are some sites that are known to be contaminated with hazardous materials (Figures 8a through 8c). Information on known hazardous material and contaminated sites on and in the vicinity of the Proposed Action Area was compiled in a *Hazardous Materials Technical Study* (Appendix E). That study reviewed previous hazardous materials reports prepared for the Proposed Action Area, including a June 2016 *Contamination Investigation* (CI Report; PBS 2016) and May 2020 *Site Setting Assessment Report Contamination Investigation Report Addendum* (CI Addendum; Anchor QEA 2020). Both of these reports are appendices to the *Hazardous Materials Technical Study* in Appendix E. Additional undocumented areas that may contain buried waste or contaminated soil and groundwater could also exist both on and adjacent to the Proposed Action Area.

The approach for previous hazardous materials investigations included querying publicly available information in databases from Ecology and USEPA and reviewing the information for potential sites of concern that may impact construction of the Proposed Action. Both the CI Report (PBS 2016) and CI Addendum (Anchor QEA 2020) include environmental database information gathered from regulatory environmental databases for properties within a radius of the target property.

Based on the information compiled in Appendix E, there are no Superfund sites within the or adjacent to the Proposed Action Area. The closest Superfund site is the Boomsnub/Airco site, which is located in the City of Vancouver, Washington, approximately 36 miles to the southeast.

As described in Appendix E, there are 10 active Ecology Cleanup Sites located adjacent to or near the Proposed Action Area. Of those, two are using the independent cleanup option, four sites are opting to use Ecology's Voluntary Cleanup Program, two are under cleanup actions conducted or supervised by Ecology, and two are awaiting cleanup. These sites present low risk of exposure to hazardous materials because there is either no contaminated groundwater, they are greater than 0.25 mile from the Proposed Action Area, or because Ecology categorizes them as the lowest assessed risk using their Washington Ranking Method (Ecology 2007).

Previous hazardous materials investigations identified sources of contamination in groundwater from adjacent properties. The Proposed Action Area itself did not appear in any such databases; however, potential groundwater acidification due to the transport of sodium carbonate (soda ash) by trains using the rail corridor is possible throughout the Proposed Action Area (PBS 2016).

Confirmed groundwater contamination has occurred on neighboring properties, including the Lime Fill Area property (Figures 3 and 8b), which is mostly located to the south of the existing IRC but extends into the Proposed Action Area. The Lime Fill Area property contains a capped, unlined landfill that was used for the storage and disposal of lime-containing wastes from paper manufacturers. Metals were previously detected in groundwater under that facility (Corps 1998). The

Lime Fill Area went through the closure process and post-closure monitoring period in accordance with WAC 173-303-610(7)(b)(i) (Longview Fibre 2009). The portion of the Lime Fill Area property that extends through the IRC and into the Proposed Action Area is not part of the former landfill waste disposal area that was closed and capped in 1986 but does contain one of the former monitoring wells for that site. That well, which is no longer in use, will be removed as part of the Proposed Action. The portion of the Lime Fill property that was previously purchased by the Port for the IRC and the portion that will be purchased for the Proposed Action include covenants and indemnities that identify the presence of the former landfill and state that the area was previously used for the storage or disposal of industrial waste.

Ecology also identified halogenated organic compounds and petroleum products below cleanup levels on the property of the eastern Cowlitz County Landfill, now closed, in which some cells are unlined (Figure 8c; Anchor QEA 2020). This landfill is part of an ongoing monitoring program for soil and groundwater contamination, and the associated monitoring and vapor point wells on site will be protected or replaced during construction.

As noted in Section 3.9, in 2000 and 2001, soil and groundwater assessments were conducted at the Former Gun Club Area and the Three Rivers WWTP (adjacent south and southeast to the project site, respectively; Figures 3, 8a, and 8b). Lead and carcinogenic PAHs were found at the Former Gun Club Area in levels exceeding the MTCA Method A industrial cleanup levels (IT Group 2001). As a result, 175 cubic yards of lead-contaminated sediment and 350 cubic yards of PAH-contaminated sediment were removed (PBS 2016). Residual contamination remains in concentrations below the MTCA Method A industrial cleanup levels and is monitored on an annual basis. At the Three Rivers WWTP, which has records of sewage spills, carcinogenic PAHs were identified at or above the MTCA Method A industrial cleanup levels. Non-carcinogenic PAHs and petroleum hydrocarbons exist in levels below cleanup standards (Anchor QEA 2020; PBS 2016).

Both hazardous and non-hazardous contamination can also be anticipated at the Longview Industrial Area, the Log Pond and lowland areas, the Finger Slough, and the former Log Pond Management Area at the north end of the Finger Slough (Figure 8a). The latter was an area along the southwest shoreline of the Log Pond where log rafts were staged and managed prior to shipment south to the former lumber mills and power plant. That area could include vehicle or tug storage, maintenance, and/or fueling operations. This area was redeveloped when the existing rail corridor was built in the early 2000s and Fibre Way was realigned; it is not known if any materials of interest were observed during construction.

Additionally, a spill of an unidentified substance occurred in 2006 at the Pacific Fibre/Lemmons Trucking site (northwest edge of the Log Pond, Figure 8a), warranting completion of a Tier 2 Emergency and Hazardous Chemical Inventory Form (Anchor QEA 2020).

As described in Section 3.9, the Port conducted soil and groundwater assessments in the location where the Three Rivers WWTP water and sanitary sewer lines will be reconstructed and in the portion of the Proposed Action Area that overlaps the Former Gun Club Area. Field samples were collected in August 2022 and analyzed by a local analytical laboratory. Those results indicated that there are elevated levels of arsenic in groundwater in the location proposed for water and sanitary sewer line reconstruction. Those levels are below the cleanup levels required by Ecology for groundwater under MTCA Method A. However, arsenic concentrations in groundwater do exceed the MTCA Method B Cleanup Level for Groundwater screening level established for construction worker safety. Results also showed higher levels of lead concentration in the near-surface soils for the portions of the Proposed Action Area that overlap the Former Gun Club Area.

3.14.1 Environmental Consequences

The Proposed Action has been designed to avoid areas of known soil and groundwater contamination. However, because construction of the full Proposed Action will involve excavation and soil disturbance, there is a risk that areas of previously unknown soils and groundwater contamination could be discovered and disturbed. As part of the project planning process, the Port is continuing to investigate areas where potential contamination is suspected to occur.

As part of the Proposed Action, a portion of the former Cowlitz County Landfill will be also redeveloped, and the landfill's Transfer Building and surrounding structures will be demolished. Pre-demolition sampling was conducted by Anchor QEA in August 2021 to inform the development of the Demolition Plan. This sampling event identified PCB- and asbestos-containing building materials present in the Transfer Building and one of the surrounding structures. These hazardous building materials will be removed and appropriately disposed of as part of the redevelopment of the Cowlitz County Landfill.

In addition to the pre-demolition sampling for the landfill Transfer Building, exploratory soil sampling performed by Cowlitz County along the northeast edge of the landfill property revealed a layer of subsurface refuse outside of the boundaries of the landfill's capped waste cells (Cowlitz County Health Department 2021). In accordance with guidance provided by Ecology and the Cowlitz County Health Department, additional test pits were excavated, and samples were collected for analysis. The only contaminant detected in the samples was lead, which was found at levels that did not exceed the toxicity characteristic criterion. Based on these results, Ecology determined that subsurface waste with similar characteristics that may be generated during the course of the Proposed Action would be considered non-hazardous and could be disposed of at a landfill permitted to accept non-hazardous solid waste. If dissimilar wastes are encountered during the course of construction, additional screening and evaluation will be performed prior to disposal.

Accidental leaks or spills during construction are also a potential environmental consequence of the Proposed Action. The occurrence of such incidents will be reduced through the implementation of standard BMPs for construction equipment use and the development of Spill Prevention, Control, and Countermeasures plans for construction of the Proposed Action.

Additionally, spills resulting from rail corridor construction of the additional four tracks, rail use, or rail maintenance activities have the potential to impact underlying soils and surface water during operations. Hazardous materials associated with spills and/or maintenance activities typically include petroleum products. The occurrence of such incidents will be reduced through the implementation of standard construction and operational BMPs, track use agreements with the Class I railroads, and spill response materials located on the corridor. The proposed perimeter access roads have also been designed to accommodate emergency and spill response vehicles and equipment.

A beneficial effect of the Proposed Action will be the improvement of environmental conditions in the area by redeveloping and reusing a brownfield site (the former Cowlitz County Landfill) for industrial purposes. Such actions will include the cleanup of potentially hazardous materials from the Transfer Building and other structures.

Potential impacts of hazardous materials will be controlled through project planning, design, and the application of required BMPs during construction and operation. Measures to avoid and minimize potential impacts will be incorporated as appropriate. Where impacts cannot be avoided or minimized, mitigation measures will be implemented.

3.14.2 Mitigation

For those areas of known arsenic and lead contamination, the Port will coordinate with the appropriate regulatory agencies to ensure compliance with federal, state, and local cleanup requirements. For areas where elevated arsenic concentrations were detected in groundwater, the Port will develop construction specifications that include information about the groundwater analytical results so that construction contractors can make informed decisions about worker safety. In areas where elevated lead concentrations were detected in near-surface soils, contaminated soils will be removed and disposed of at an appropriate permitted landfill. The Port will also develop construction specifications for those portions of the Proposed Action Area to inform contractors about the soil analytical results so that they can make informed decisions about worker safety.

Identified PCB- and asbestos-containing building materials present in the Transfer Building will also be removed and properly disposed of prior to construction to avoid the potential release of those substance into the environment during structure demolition. Any mitigation measures required to address hazardous materials will comply with both state and federal regulations including MTCA and RCRA.

The Port will develop a Contaminated Materials Management Plan (CMMP) to provide a framework of protocols and procedures related to the management of contaminated materials that may be encountered or generated by the project. The CMMP will provide guidance related to managing, storing, disposing, or recycling contaminated materials generated by the project. The Port intends to have an approved CMMP in place prior to project construction activities.

The Port will ensure that track agreements with the Class I railroads include environmental provisions to ensure that all activities in the Proposed Action are compliant with all state, local, and federal regulations.

The Proposed Action Area will have fully stocked spill kits to deploy for temporary containment of spills to soil or groundwater until spill contractors arrive, and the Proposed Action Area will be included in the Port's Emergency Response Plan.

3.15 Traffic and Safety

Rail service to the Port is currently provided primarily via the Port's IRC (Figures 2 through 4). The IRC consists of a two-track rail line that was constructed in 2004 to provide a direct connection between the Port's existing marine terminals and the Class I mainline rail line that runs between Seattle and Portland. The IRC is connected to the Class I mainline rail via LVSC's Longview Switching Yard, which is adjacent to Tennant Way (Washington SR 432) in Longview, Washington, and extends through existing industrial areas that includes Port-owned lands and private and publicly owned lands (Figure 3).

The Port's internal track system is constrained, and current rail operations require multiple switching, maneuvering, and shunting operations by LVSC or Longshore Labor. These constraints result in inefficiencies that include idling, excess switching movements, and increased rail traffic congestion within local and regional railyards and networks as the Port rail system backs up.

SR 432 is the closest major highway to the Proposed Action Area. Fibre Way runs south of the Log Pond, and Industrial Way supports the north end of the Log Pond. There are no at-grade crossings of the IRC with public roads in the Proposed Action Area. There are roads to access the IRCE that are connected to the public right-of-way at two locations (at Dike Road on the east end and Fibre Way on the west end).

3.15.1 Environmental Consequences

The Proposed Action is expected to have an overall beneficial effect on traffic and safety. One of the key objectives of the Proposed Action is to decrease operational rail constraints at the Port by providing longer unit train service. The Proposed Action will increase the length of the Port's corridor and add two new tracks to address current operational shortcomings. The increases in capacity will allow unit trains to arrive and depart at the Port without requiring them to be broken into smaller

strings. This will both reduce switching movements and decrease or eliminate the need to store these shorter strings within the Port or the LVSC railyard, which will lessen the frequency of movements across surrounding at-grade crossings and the pressure these movements put on local vehicle traffic. Overall, these improvements will allow the Port to increase the operational efficiency of their rail system.

The Proposed Action will improve traffic and safety within the project boundary by constructing new access and inspection roads, built to the railroad's standards, on both sides of all new tracks and adjacent to the existing IRC tracks where none currently exist. The size and spacing of the roadways have been designed in coordination with both of the Class I railroads that may operate on the corridor. The project roadways will allow for the safe access of vehicles and operators along the full length of the corridor with at-grade crossings at each end of the corridor beyond the clear point where trains may be spotted. Each end is equipped with a new, lit crew change area, which allows for crew shuttles to access each end of the corridor, drop off or pick up crew, and exit the corridor without backing up their vehicles. The railroads have indicated that reversing vehicles is a significant safety hazard within their operations.

The corridor access roads will be restricted to use by Port and railroad officials and intermittent use by surrounding property owners according to their easement agreements. The IRCE access roads are connected to the public right-of-way at two locations (at Dike Road on the east end and Fibre Way on the west end). Both locations will be secured with gates.

At the east end of the corridor, a connection will be made to the Longview Switching Yard, which is jointly owned by BNSF Railway Company and UPRR. At the west end of the corridor, the project tracks will connect into existing trackwork owned by the Port. Along much of the corridor, the full embankment and track construction will take place adjacent to the existing IRC tracks. At all locations, the construction contractor will be responsible for providing proper notice to the Port and railroads and implementing safety measures and procedures for all rail operational interruptions or when existing tracks are fouled.

The Port is collaborating with local emergency services officials to enhance safety along the expanded corridor. Safety-enhancing measures included in the Proposed Action include adding dual locks on all access road gates and placing emergency response kits along the length of the new rail corridor.

3.15.2 Mitigation

No mitigation is proposed beyond the design features described above to address safety. The Proposed Action will provide many local and regional traffic and safety benefits and will have no adverse effect on safety or traffic. Expected benefits of the Proposed Action on Traffic and Safety

include a reduction in the frequency of train movements across local at-grade road crossings; the provision of safer and improved access for crew shuttles, maintenance equipment, and emergency vehicles along the full length of the corridor; and the provision of new crew change areas that allow through access for crew shuttles that eliminate the need for vehicle reversing.

3.16 Visual Resources

The visual setting of the Proposed Action Area includes existing railroad tracks within an existing industrial area. The surrounding areas are also industrial and developed in nature. No neighborhoods are located immediately adjacent to the project site.

3.16.1 Environmental Consequences

Construction of the Proposed Action will contribute to the existing industrial and developed nature of the project site and surrounding area. The new rail lines and the full embankment will be installed next to existing rail lines within an area that is already dominated by industrial uses and railroad operations. The new full embankment and rail lines will result in a slight change in visual character of the project site because the new full embankment will be approximately 2 to 25 feet above the existing elevation.

Furthermore, because no neighborhoods are located immediately adjacent to the project site, no changes in views from residential areas are anticipated. The Proposed Action will not obstruct or alter existing views from within the project site. People affected the most will be those immediately adjacent to the areas of construction, specifically those working at the Port and on the surrounding industrial properties. These impacts will be short-term in nature because of the limited duration of construction of the Proposed Action.

3.16.2 Mitigation

No mitigation is proposed for visual resources because impacts will be minor.

3.17 Noise and Vibration

The Proposed Action Area is an economic corridor with frequent freight truck traffic and Class I surface carriers that enter and exit the southeast boundary of Port property via the railway. Noise and vibration levels are typical of industrial operations. There are no residences or other groups that would be considered sensitive to noise.

This analysis considers a 0.5-mile area around the Proposed Action Area to investigate the presence of noise- and vibration-sensitive receivers (such as residential areas, schools, and hospitals). The Proposed Action Area intersects a small portion of an area zoned as residential; however, there are very few residences within the study area. One mobile home park (605 California Way) is located

approximately 2,000 feet north of the construction area. No schools or hospitals are located within the study area.

Noise from surface carriers engaged in interstate commerce by railroad is exempt from Washington State maximum permissible noise level regulations (WAC 173-60-050). Because there are no criteria or guidelines for assessing noise and vibration impacts specifically from freight trains, high-speed rail and transit project impact guidelines represented the most appropriate measure. Noise and vibration effects were calculated using the methods from the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). FTA transit noise and vibration impact assessment procedures are relied on by FRA in evaluating improvements to conventional passenger rail lines and stationary rail facilities and for horn noise assessment (FRA 2021).

The Proposed Action does not include, nor is associated with, any increase in train traffic or operations. The Proposed Action will provide for current Port operational needs. In fact, the efficiency offered to the Port's rail system because of the Proposed Action, should decrease current train movements and overall operations. For this reason, the analysis does not consider operational noise and vibration impacts of the Proposed Action.

Construction noise and vibration was assessed following the methods from the *Transit Noise and Vibration Impact Assessment Manual*, Section 7, "Noise and Vibration During Construction" (FTA 2018). Given the distance to the nearest sensitive receivers, the construction noise assessment followed the General Assessment approach for the noisiest pieces of equipment and compared the results to the most stringent Construction Noise Criteria identified in Table 7-2 of that reference. For construction vibration assessment, the project evaluated the highest vibration source construction equipment as reported in the Manual in relation to the project's distance to nearby buildings and the Category 2 vibration sensitive land use. The quantitative approach evaluated both a Damaged Assessment and Annoyance Assessment per Step 3 as detailed in Section 7.2, "Construction Vibration Assessment."

3.17.1 *Environmental Consequences*

Construction of the Proposed Action will occur primarily during daytime hours. Daytime construction is exempt from Washington State permissible noise level regulations (WAC 173-60-050). The project analyzed beyond the local requirements and followed the procedure from Section 7 of the FTA's *Transit Noise and Vibration Impact Assessment Manual*, "Noise and Vibration During Construction" (FTA 2018).

For the noise assessment, it was concluded that a Quantitative Construction Noise Assessment was warranted because the Proposed Action is neither small, nor met the duration requirements for a Qualitative Assessment. The analysis began with a General Assessment and considered the two

noisiest pieces of equipment (impact pile driver and rail saw) that may be used during construction and followed the manual's Quantitative Construction Noise Assessment to estimate construction noise. Although unlikely, the analysis conservatively considered the noisiest equipment operating simultaneously and used decibel addition to sum the construction noise impact at 2,000 feet (distance to nearest sensitive receivers). The calculated noise emission level is 69.3 A-weighted sound level in decibels (dBA). The calculated level is well below the most stringent Construction Noise Criteria identified in Table 7-2, General Assessment Construction Noise Criteria of the FTA Manual, which identifies an 80-dBA criteria for nighttime activities near residential land use (FTA 2018). Since the General Assessment procedure did not identify locations in the project where noise levels exceed the assessment criteria, no adverse effects from noise are expected.

The Proposed Action will include pile driving, which is noted in the FTA Manual as an activity which may result in building damage or prolonged annoyance. For projects which include these types of activities, a Quantitative Construction Vibration Assessment is required to assess both damage and annoyance. For the damage assessment, the analysis considered the nearest building to the proposed piling driving activity which is approximately 400 feet from the project. The calculated peak particle velocity of the equipment adjusted for distance is 0.02 in/sec. The most stringent criteria in Table 7-5 Construction Vibration Damage Criteria is 0.12 in/sec for buildings extremely susceptible to vibration damage. The calculated impact is six times less than the assessment criteria. A few other buildings exist a minimum of 100 feet from the project boundary, but none are in the vicinity of the pile driving activity. The analysis considered these buildings in relation to a vibratory roller as the next highest source of vibration impact and again determined a peak particle velocity well below the Table 7-5 criteria. Therefore, no building damage is expected. For the annoyance assessment, the analysis considered the sensitive receiver at 2,000 feet from the project and calculated the root mean square velocity level for the pile driving activity adjusted for that distance as 54.9 vibration decibels (VdB). The most stringent criteria in Table 6-3 Indoor Ground-Borne Vibration (GBV) Impact Criteria for General Vibration Assessment is 72 VdB for Category 2: Residences and buildings where people normally sleep which is well above the calculated value. Therefore, no annoyance impact is expected.

As described in Section 1, the Proposed Action is designed to serve current train traffic and is not directly connected to an action that will increase train or cargo volumes at the Port. The IRCE's increase to track lengths will allow the corridor to arrive, store, and depart intact unit trains on the corridor. This operational change will decrease the need to break longer trains into smaller lengths for movements and storage throughout the Port and the Longview Switching Yard. The increase in train movement efficiency is expected to lead to a decrease in the noise and vibrations related to train spotting and the frequency of train movements.

For all these reasons, no increase in noise or vibration from that which currently exists will be generated by the Proposed Action, and no adverse noise and vibration effects are anticipated.

3.17.2 Mitigation

The Proposed Action includes a new air system at the east end of the IRCE to allow trains to connect directly to the air supply without relying on an idling locomotive. The existing corridor does not offer an air system connection; therefore, the Proposed Action should result in a decrease to locomotive idling for the same train traffic. No additional mitigation is proposed because no adverse effects from noise or vibration are expected to occur as a result of the Proposed Action.

3.18 Public Services and Utilities

Public services include fire and emergency services, law enforcement services, schools, public transit, and hospitals. Public utilities include water, sewer, solid waste, electricity, gas services and associated infrastructure.

Fire and emergency services for the Proposed Action Area are provided by multiple entities based on location. For portions of the Proposed Action Area that are within City of Longview jurisdiction, fire service is provided by the Longview Fire Department and police service is provided by the Longview Police Department. For portions of the Proposed Action Area in Cowlitz County, fire service is provided by Cowlitz 2 Fire and Rescue and police service is provided by the Cowlitz County Sheriff's Office.

There are no public schools, hospitals, or public transit routes within or adjacent to the Proposed Action Area. The closest public school is Kessler Elementary school, which is located approximately 1.4 miles to the northwest of the Proposed Action Area. The closest hospital is the PeaceHealth St. John Medical Center located approximate 1.5 miles to the northwest of the Proposed Action Area. The closes bus stop is located at the Walmart, approximately 0.5 miles to the north of the Proposed Action Area.

The Proposed Action Area contains aboveground electrical utility infrastructure owned and maintained by the Cowlitz County Public Utility District (PUD), Bonneville Power Administration (BPA) and other local entities; and underground sanitary sewer and water lines owned and maintained by the City of Longview, Cowlitz County, and Three Rivers WWTP. Those utilities provide service to both regional and local customers including various industrial users and facilities adjacent to the Proposed Action Area (e.g., Three Rivers WWTP, Pacific Fibre, WestRock, LVSC, the former Cowlitz County Landfill). Although the western end of the project site contains underground natural gas transmission lines owned by Pacific Natural Gas Company and Cascade Natural Gas Corporation, natural gas utility service is not available in the Proposed Action Area.

3.18.1 Environmental Consequences

The Proposed Action will have no effects on schools, hospitals, public transit systems, or emergency services providers nor will it result in an increased need for any of those public services. As discussed

under Traffic and Safety in Section 3.15.1, the proposed action will improve access through the rail corridor for emergency services. Emergency vehicle turnarounds will also be provided in the crew change areas at either end of the new rail corridor.

The Proposed Action will result in minor, temporary impacts on public utilities from the relocation and/or reconstruction of electrical, sanitary sewer, and water lines. The new infrastructure will be sized and designed to meet the current requirements but will not change the demand on the public utilities.

Work on aboveground electrical utilities will typically involve drilling new holes for new or replacement utility poles or support structures, installing new poles or support structures, transferring existing lines, and removing old poles/support structures. It is not anticipated that any outages in electrical services will be required to complete this work. All modifications to electrical utilities will be performed by the owner of those utilities (i.e., Cowlitz County PUD).

Work on underground sanitary sewer and water lines will typically involve excavating to expose the existing utility line, trenching to install the relocated or new line, dewatering the work area, placing bedding material and new pipe, and backfilling the trench. Surface grading to return the disturbance to pre-project grades and reseeding with native seed will also be performed. The pipe from disconnected or relocated lines will either be removed or abandoned in place. Water service to the facilities affected by these relocations may result in temporary interruptions and will be coordinated with the utility purveyors.

The proposed public utility work required to construct the Proposed Action is further described in the following sections by the utility purveyors it will affect. Coordination between the Port and these entities has been initiated and is ongoing.

Cowlitz County Public Utility District

To accommodate the Proposed Action, four Cowlitz County PUD electrical transmission poles will require modification. Three Cowlitz County PUD structures will be adjusted or replaced with taller poles to provide additional vertical clearance. One additional Cowlitz County PUD transmission pole may be added but will be determined at a later time.

Power for the Proposed Action will be drawn from the Cowlitz County PUD at two locations in the landfill area near the eastern terminus of the project site. Power will also be drawn from a Cowlitz County PUD source on the western terminus of the project site near the Fibre Way overpass.

Cowlitz County

An existing public sanitary sewer line and potable water line that provide service to the former Cowlitz County Landfill Transfer Building will be disconnected. The former Transfer Building will be

demolished as part of the Proposed Action so sewer and water utility service will no longer be needed for that structure.

The existing sewer line runs along the northern perimeter of the landfill property between the former Transfer Building and the Three Rivers WWTP along the south side of the IRC. A privately owned side branch to that line connects to a building on the LVSC site from a manhole located just west of the existing IRC switches off the LVSC lead track. Under the Proposed Action, the manhole where those lines connect and the line that runs to the Transfer Building will be removed. The sewer line to the LVSC building will be reconnected to the remaining section of sewer line that leads to the Three River WWTP.

The existing potable water line that provides service to the former Transfer Building runs parallel to the sanitary sewer line and is part of a water distribution loop owned by the City of Longview. As part of the Proposed Action, the segment of water line that extends to the Transfer building will be disconnected and removed. Additional modifications to the water distribution loop are also required and further discussed under the City of Longview section.

Three Rivers Regional Wastewater Authority

The proposed action will require the reconstruction of an existing 30-inch-diameter concrete sanitary sewer force main that extends under the Log Pond, Wetland A, the new rail embankment, and the existing IRC rail corridor to the Three Rivers WWTP. Reconstruction work is needed to ensure that this line is not damaged by construction or future operation of the Proposed Action. To provide this additional protection, the section of sewer line that will extend under the new rail embankment will be reconstructed and placed in a steel casing and supported on series of pile bents to prevent the line from settling.

The initial phase of the reconstruction work will involve bypassing an approximately 513-foot section of the existing 30-inch-diameter concrete force main. Bypass will occur via the installation of temporary linestop valves on the existing line at both ends of the work area and a 24-inch diameter high-density polyethylene (HDPE) bypass pipe system to allow for removal and replacement of the section of the sewer main that will occur in the right of way of the new rail corridor. To limit excavation in Wetland A, the bypass pipe will be placed at grade for approximately 270 feet on the north side of the IRC before routing them through an existing empty 48-inch steel casing that was previously placed under the IRC alignment during its construction. If the bypass pipe cannot be run at grade, then the bypass route will need to be trenched and the pipe installed below grade. On the south side of the IRC, the sewer bypass pipe will reconnect with the existing sewer line below grade. Once the sewer line is bypassed, the existing line will be excavated and a 264-foot-long section will be removed.

To reconstruct the sewer line, a new 264-foot-long section of 36-inch-diameter HDPE pipe will be installed inside a new 48-inch-diameter steel casing. That casing will be supported on a 240-foot long support structure composed of a series of 25 pile bents. The pile bents will consist of 16-inch-diameter steel piles driven into the ground and capped with 24-inch square steel pile caps. The new 48-inch-diameter steel casing will be welded to the pile caps. Following installation of the pile support structure and new section of pipe, the temporary linestop valves and bypass system for the sewer line will be removed and flow will be transferred into the new section of pipe. The new pipe will then be backfilled with pipe bedding and general fill material.

All reconstruction work will occur during low-water conditions in the Log Pond and will be coordinated with Three River WWTP. As indicated by the use of bypass piping, no interruption of Three Rivers WWTP's ability to provide sanitary sewer service to its customers will occur during this work.

A 12-inch-diameter cast iron potable water line that runs parallel to the sewer line within in the same utility corridor will also need to be reconstructed to protect it from future use of the new rail corridor. That line is part of the City's infrastructure and is addressed in the following section.

Because of the level of work required for this reconstruction, the Port has developed a mitigation and contingency plan in coordination with Three Rivers Regional Wastewater Authority and the City of Longview to address various problems that could arise during construction. Potential issues considered in that plan include insufficiencies in the dewatering plan; operational disruptions due to leaks or utility line breakage during and after construction; risk of water line contamination in the event of a break in the sewer line during bypass operations; construction delays due to the unknown conditions of the existing pipes; connection issues from the joining of differing pipe materials; and capacity issues of the proposed bypass pipes. Each potential issue includes mitigation measures to reduce or eliminate the risk and contingency measures if the mitigation measures prove to be ineffective or inadequate.

City of Longview

For the City's 12-inch-diameter cast iron water line that runs parallel to the Three Rivers WWTP force main, a 513-foot section of that line will be bypassed in the same way proposed for the sewer line reconstruction work (i.e., using line stop valves and bypass piping). The new section of water line will consist of 12-inch-diameter HDPE pipe inside a 24 inch-diameter steel casing. Because of the size and depth of the water line, it is anticipated that it will not need to be supported on piles as it will be designed to tolerate the projected settlement caused by the construction and operation of the new rail corridor. Once the new pipe is installed, the temporary linestop valves and bypass system for the water line will be removed, and flow will be transferred into the new pipe. The new pipe will then be backfilled with pipe zone bedding and general fill material.

The water line running parallel to the Three Rivers WWTP force main and the water line that provides service to the former Cowlitz County Landfill Transfer Building are both part of a larger City-owned water distribution loop. In addition to the proposed reconstruction work described in the preceding paragraph and the disconnection and removal mentioned above in the Cowlitz County section, the City's distribution loop will be modified to relocate the water main outside of the new rail corridor to the extent feasible. Any remaining sections of that system that run beneath the proposed corridor will be encased in steel to protect them from potential damage by operation of the Proposed Action.

3.18.2 Mitigation

As noted in the preceding sections, the Proposed Action will have no effect on public services. The Port has coordinated with both Cowlitz County and the City of Longview to incorporate emergency vehicle access considerations into the Proposed Action. These include the provision of vehicle turnarounds in the proposed crew change area at either end of the new rail corridor.

The Proposed Action will cause some temporary impacts on public utilities, primary from potential short-term interruptions in service during utility relocation and reconstruction work. Mitigation measures to avoid and minimize impacts to public services and utilities include the use of bypass piping to maintain utility services during construction and the development of a contingency plan for the work in the Three Rivers WWTP utility corridor, the most extensive utility modification under the Proposed Action. With the implementation of such mitigation, overall impacts of the Proposed Action on public utilities would be minor.

3.19 Environmental Justice

This section evaluates the potential of the Proposed Action to cause disproportionately high and adverse impacts on environmental justice (EJ) populations in accordance with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations¹⁹. EJ is defined by USEPA as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (USEPA 1998). EO 12898 requires that federal agencies identify and address disproportionately high and adverse impacts resulting from federal projects on minority and low-income communities. For the purposes of identifying minority and low-income populations in the EJ study area, which included U.S. Census blocks and block groups within half a mile of the Proposed Action Area, the analysis summarized in this section used

¹⁹ EO 14096 "Revitalizing Our Nation's Commitment to Environmental Justice for All," was issued on April 21, 2023. E.O. 14096 builds on the foundational Environmental Justice order, EO 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations". MARAD continues to perform environmental justice analyses under existing NEPA implementing procedures and longstanding agency practice and, in addition to referring to the text of EO 14096 and EO 12898, continues to look to CEQ's 1997 *Environmental Justice Guidance under the National Environmental Policy Act* and the 2016 report *Promising Practices for EJ Methodologies in NEPA Reviews* to inform analysis related to environmental justice.

2020 Census data (for race and ethnicity) and the most recent available data from American Community Survey.

To determine the potential effects of the Proposed Action on both minorities and communities of color and low-income populations, an *Environmental Justice Report* was prepared (Appendix Q). The study area for that analysis included all potentially affected populations residing in areas that could be directly or indirectly affected by construction or operation of the Proposed Action (Figure 9). This includes all census block groups that intersect a 0.5-mile area around the project boundary, which consist of three census tracts and three census block groups.

The EJ study area is located in an urban-industrial environment that primarily includes heavy and light industrial lands and mixed-use commercial/industrial lands. The study area intersects a small portion of an area zoned as residential; however, there are few to no residences within the 0.5-mile study area. Several mobile home parks are located north of, but outside of, the study area.

Of the three census block groups that intersect the EJ study area, one of them is considered above the threshold for a minority population, and all three are above the threshold for a low-income population.

In addition to EJ populations, other characteristics of communities within the EJ study area were analyzed to provide a better understanding of the local community. These included people with a disability, people more than 65 years of age, households without access to a vehicle, people who are transit dependent, and households with limited English proficiency. Analysis of the census block groups in the EJ study area for these other population characteristics revealed the following:

- Two of the three block groups contain a greater percentage of people between the ages of 20 and 64 with a disability compared to the percentage of the same population in Cowlitz County.
- Two of the three block groups within the study area contain a greater or equal percentage of people over age 65 compared to the percentage of the same population in Cowlitz County.
- The percentage of occupied housing units in the EJ with no vehicle access ranges from 13% to 37%, which is higher than the percentage of the same population in Cowlitz County.
- The percentage of workers in the EJ study area that use public transportation ranges from 0% to 7%.
- Two of the block groups in the EJ study area have populations with a higher percentage limited English proficiency than Cowlitz County.

Further EJ analysis is included in the *Environmental Justice Report* (Appendix Q).

3.19.1 *Environmental Consequences*

During construction of the Proposed Action, minor increases in noise, dust, odors, lights, and glare could impact adjacent commercial or industrial properties. The Proposed Action will occur within an active industrial facility, with active rail lines and noise levels that are typical of an industrial setting. Construction will take place on Port property, primarily in areas away from residential neighborhoods, roadways, and pedestrian and bicycle facilities. Residential areas within block groups that intersect the study area are approximately 1 mile or more from the Proposed Action Area. Construction will be completed consistent with applicable Washington State, Cowlitz County, and City of Longview noise regulations. Although construction of the Proposed Action is expected to last for 3 years, these impacts will be temporary and are not considered to be highly adverse. Therefore, they are not anticipated to result in disproportionately high and adverse effects on EJ populations or the other community populations identified in Section 3.19 and the *Environmental Justice Report* (Appendix Q).

Increasing the number of rail tracks from two to four will increase operational noise as additional capacity is added. The remaining four tracks will be installed on an as needed basis in the future depending on current tenant and customer growth and redevelopment of Port assets. Long-term noise levels at the site could be greater than current noise levels but are still anticipated to remain similar to existing levels after project completion. Because no significant effects are anticipated, there will be no disproportionately high and adverse effects on EJ populations or other community populations.

No neighborhoods are located immediately adjacent to or within 0.5 mile of the Proposed Action Area (Figure 9), so changes in views from residential areas are not anticipated, and the Proposed Action will not obstruct or alter existing views. Because no significant effects are anticipated, there will be no disproportionately high and adverse effects on EJ populations or other community populations.

3.19.2 *Mitigation*

No mitigation is proposed because there will be no disproportionately high and adverse effects on EJ or other community populations.

3.20 **Cumulative Effects**

Cumulative effects are defined as the impact on the environment that results from the incremental impact of the action when added to the effects of other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (40 CFR 1508.1[g][3]). As specified in this definition, cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

The cumulative analysis considers six actions: an at-grade rail separation project (Port project); construction of a new box plant facility (private); development of a pellet manufacturing facility (private); expansion of a scrap yard operations (private); and the Industrial Way/Oregon Way Intersection Project (IWOW), which is a regional transportation improvement project (public). The sixth project is the construction of the additional four rail tracks that would utilize the remainder of the full embankment constructed as part of the Proposed Action. However, there are no current plans or funding source identified for that potential development. The additional four tracks may be developed as customer demand increases. If federal funding is secured by the Port in the future to develop the additional four tracks, this EA would need to be reevaluated for potential supplemental documentation.

The planning and preliminary engineering for the Port's at-grade rail separation project began in 2022. That project is being proposed to provide a safer route for cargo and vehicular traffic and ensure quick access for emergency services in and out of the Port. As the Port continues to grow, a grade separation will be necessary to avoid extensive future traffic delays. Project completion is expected by 2028.

The projects being proposed by private entities (box plant, pellet manufacturing facility, and scrap yard expansion) are proposed in the vicinity of the Proposed Action Area. These projects will result in minor construction activities limited to the properties on which they occur and are likely to be largely completed by 2024. The following sections briefly describe each of these projects and discuss how each is independent of the Proposed Action.

- **Box Plant:** The new box plant is being constructed to the east of the Port's tenant EGT at WestRock Paper Mill. This property is privately held. The box plant will utilize Fibre Way for on-road traffic; Fibre Way is a public roadway. WestRock currently has a rail switch/spur off the southern track of the IRC and will continue to use that rail switch to provide rail service for their current facility and to serve the new box plant. The Port does not operate or maintain the switch to WestRock's spur track, and it will not be impacted by the IRCE as it is beyond the area where modifications will be needed to connect the current IRC tracks to the proposed new tracks. Although WestRock will benefit from the improved rail service and capacity provided by the Proposed Action, it is not dependent on its construction for the continued operation of its current business or the future operation of the new box plant.
- **Pellet Manufacturing Facility:** A new wood fuel pellet manufacturing facility being developed by Drax is currently in permitting on private property between the Port's Finger Slough and the EGT terminal. When operational, that facility will use Fibre Way, a public roadway, for on-road traffic. Rail into the new facility is anticipated to be provided via the existing WestRock rail switch/spur discussed under the Box Plan description. Drax will export their pellets internationally from the Port at Berth 8 via an overhead conveyor from their

facility to a mobile ship loader at the Port's Berth 8. Drax is not dependent on the IRCE project for rail service to their facility.

- **Scrap Yard Expansion:** PNW Metals is within the Port's planning boundary footprint between the Port's warehouse complex to their west and a Port tenant to their east. PNW Metals' property is privately held. PNW Metals is expanding their scrap yard operations by constructing an onsite shredder. PNW Metals uses SR 432 (Industrial Way; public), International Way (public), and Panel Way (port owned) to access their facility for on-road traffic. PNW Metals also utilizes the IRC to receive scrap via rail car. They have a rail switch/spur off the Port's internal rail system to service their facility. The Port does not operate or maintain that switch nor is it proposed for modification under the Proposed Action. PNW Metals receives scrap by rail manifest service and is not dependent on construction of the Proposed Action for expansion of their scrap operation. The majority of scrap coming into the facility is via truck from their sister companies in Clackamas and Portland, Oregon. Although the development of the Proposed Action will improve rail service to their facility by providing additional capacity for rail movements, PNW Metals current and continued operations are not dependent on its construction.

The IWOW project involves improving the intersection of Industrial Way (SR 432) and Oregon Way (SR 433) just northeast of the Port. SR 432 is a four-lane, east-west state highway that runs to the north of the Proposed Action Area, and SR 433 is a four-lane, north-south state highway that extends over the Columbia River via the Lewis and Clark Bridge. According to the Washington State Department of Transportation, that intersection is a critical connection of statewide significance that supports passenger and freight traffic in southwest Washington and one of the busiest truck tonnage intersections in the state (WSDOT 2022). Currently three rail lines cross the roads just before the intersection via at-grade crossings. During peak travel times, traffic backs up along the arterial corridors and on the Lewis and Clark Bridge. The IWOW project involves adding various structures (e.g., overpasses) to separate the rail and roadway, and realigning the approaches to the intersection to address traffic congestion, freight mobility and safety issues at one of the busiest truck tonnage intersections in the state. It is being designed to reduce traffic backups, improve travel reliability, maintain, or improve emergency response and facilitate more efficient travel through the corridor to support economic opportunities across the region. The IWOW project is a regional project that is northwest of the Port. Neither the existing IRC nor the Proposed Action intersect with this project, and neither is a component in WSDOT's plans.

Construction and operation of the additional four tracks that would utilize the remainder of the full embankment, as evaluated as part of the Proposed Action, is dependent on future customer demand. The additional tracks could be developed incrementally or all at once.

3.20.1 Environmental Consequences

Cumulative operational impacts from the Proposed Action would be minor. This is because the Proposed Action would improve congestion at the Port and would not result in any increases in rail traffic. It is possible that construction activities associated with the private developments and the IWOW project may overlap with construction of the Proposed Action. However, construction of those projects is located nearby and not within the Proposed Action Area of potential effects. Additionally, those projects have been through either state and/or federal environmental reviews. Mitigation, if required, would be a condition associated with the impacts from those projects.

Construction of the Port's at-grade rail separation is not anticipated to overlap with the Proposed Action. The at-grade rail separation project would be constructed post completion of the Proposed Action. The at-grade rail separation project is intended to improve congestion related to freight and vehicle movement in and out of the Port. The project will reduce air emission due to idling time at the at-grade rail crossing by providing uninterrupted freight and vehicle access to the Port terminals.

Construction and operation of one or more of the four additional tracks would not overlap with the Proposed Action. However, once additional tracks are developed, operational emissions of air pollutants would likely increase with the additional four tracks beyond those planned under the Proposed Action. It is anticipated that the construction of the additional tracks will be triggered by an increase in train traffic and cargo volumes at the Port resulting from independent projects elsewhere at the Port.

3.20.2 Mitigation

Some mitigation measures have been proposed in Section 3 to address impacts from the Proposed Action. These include the following (responsible party and implementation time frame shown in parentheses):

- Developing and implementing construction equipment operation specifications to reduce GHG emissions and associated impacts on climate change (Port, prior to/during construction)
- Using wetland mitigation credits and enhanced open water habitat at the Port's WGAWM Site to compensate for permanent wetland and open water impacts (Port, prior to construction)
- Developing and implementing a contingency plan for the reconstruction of publicly owned sanitary sewer and potable water lines that serve the Three Rivers WWTP (Port, prior to/during construction)
- Complying with MTCA clean up requirements and developing a CMMP for areas of the Proposed Action Area where contaminated soils and groundwater may occur (Port, prior to construction)

- Complying with the requirements of the Eagle Nest Take Permit issued for the Proposed Action on June 13, 2023
- Complying with USFWS BMPs to protect MBTA species during construction of the Proposed Action (Port, during construction)
- Implementing an Inadvertent Discovery Plan to avoid or reduce impacts on cultural and historical resources (Port, during construction)
- Incorporating stormwater infiltration measures to reduce impacts on flooding and water quality (Port, during/after construction)
- Improving traffic emergency vehicle access to the new rail corridor (Port, after construction)
- Providing a new compressed air system to supply air to parked trains, limiting the need for reliance on an idling locomotive to maintain the train braking system and reducing impacts related to GHG emissions and noise and vibration (Port, after construction)

These measures would help to limit the potential for cumulative impacts. All other projects constructed in the vicinity of the Proposed Action Area will be required to comply with applicable local, state, and federal regulations, which will further reduce environmental impacts. Therefore, no significant cumulative adverse impacts are anticipated. No additional mitigation is proposed.

4 Agency and Tribal Consultation

In addition to regular coordination with MARAD as the NEPA lead federal agency and FRA as a NEPA cooperating agency on the preparation of this EA, the Port has also coordinated and consulted with multiple federal, state, and local agencies throughout the planning and design of the Proposed Action. A coordination summary, which was completed at the publication of this EA, is provided in Appendix R. The Port has regularly coordinated with both the Corps (Regulatory Branch) and Ecology (Shorelines and Environmental Assistance Program) since the beginning of the project, and both of those agencies have performed multiple site visits to the Proposed Action Area. The Port has also coordinated with USFWS on ESA, Bald and Golden Eagle Protection Act, and MBTA compliance and the Eagle Nest Take implications to their transmission line easement, which crosses the eastern portion of the Proposed Action Area. In addition to Ecology at the state level, the Port has coordinated with WDFW and Washington Department of Archaeology and Historical Preservation (DAHP) on natural and cultural resource issues and their respective regulatory processes. Locally, the Port has worked closely with multiple departments within the City of Longview, Cowlitz County, Three Rivers Regional Wastewater Authority, and CDID No. 1 on the planning and design of the Proposed Action and its effects on their respective resources and infrastructure. Coordination with many of these agencies continues as the Proposed Action moves into the permitting phase.

Tribal coordination activities related to the Proposed Action are also summarized in Appendix R. On August 4, 2022, tribal consultation letters were submitted via email to tribal contacts at the Cowlitz Indian Tribe, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of the Siletz Indians of Oregon, and Confederated Tribes of the Warm Springs Reservation of Oregon. On August 4, 2022, a letter was sent via email on behalf of MARAD to the State Historic Preservation Officer (SHPO) at DAHP requesting concurrence with the determination that there are no historic properties within the APE. On August 18, 2022, SHPO concurred with the APE and findings of the cultural resources assessment and recommended continued coordination with tribes through planning and implementation (DAHP 2022). Copies of the tribal consultation letters and the response letters from the SHPO and Cowlitz Indian Tribe are provided in Appendix S.

Additionally, throughout project development, the Port has also coordinated with the Cowlitz Indian Tribe, with whom they maintain a close working relationship. The Port initially sent the Cowlitz Indian Tribe natural resources staff a project description and purpose and need document on November 8, 2021, then held a project outreach meeting with them on December 17, 2021. The same project description and purpose and need document was later submitted to their cultural resources staff on January 7, 2022, and an additional project outreach meeting was held with that staff on February 11, 2022. The Port also formally presented the project to members of the Cowlitz Indian Tribe including their Chief Operating Officer on March 22, 2022.

5 Public Involvement

Public outreach for the Proposed Action has been through Port Commission meetings, which are open public meetings and are live streamed on local access television during sessions, with those viewing on live stream having the ability to comment through email, if desired. Meetings are advertised in the local newspaper, the Port's website, social media, and through a Port Commission notification email list. During the COVID 19 pandemic, when in-person meetings were not allowed, all meetings were held virtually with an opportunity for public comment.

Public meetings regarding the expansion of the IRC began in 2014; however, it wasn't until 2018 that substantial discussion began on moving the project forward. Meetings and workshops were held regarding general updates on the project, alignment, budget, property acquisition, grants, funding strategies, and permitting, including resolutions from the Port Commission on funding and property acquisition. Meeting agendas and minutes can be accessed on the Port's website.²⁰

Other avenues of public outreach have included a 2018 article in the Port's biyearly newsletter, "Port Talk" (Port of Longview 2018), which reaches every household in the Port district; public meetings; and public comment periods for the IRCE test fill project, which included State

²⁰ <https://www.portoflongview.com/35/COMMISSION>

Environmental Policy Act (SEPA) review, CWA Section 404 permits, and Section 401 Water Quality Certification applications. Notification for the IRCE test fill project followed the Port's SEPA policy notification process, which included, but wasn't limited to, a notice in the local newspaper, posting on the Port's website, notification of adjacent landowners, the Port Commission's notification email list, and notifications to the Cowlitz Indian Tribe and agencies with jurisdiction.

Significant public engagement occurred for the Port's Strategic Business Plan and the Comprehensive Scheme of Harbor Improvements, which both include the Proposed Action. Engagement activities included email notifications to over 200 identified stakeholders informing them of Port Commission workshops, the final public hearing, and ultimate adoption of those plans. Additional means of communication regarding the project included a public survey, newspaper notifications, and radio advertising. These plans also went through SEPA review and subsequent notification processes per the Port's SEPA policy.

Outreach to the Cowlitz County Commissioners was conducted in 2019 regarding the IRCE project. The Port also submitted a grant application for the IRCE project to Cowlitz County in 2021 and provided a public presentation to the Cowlitz County Commission on the various grants the Port was pursuing for the IRCE project. Further, there have been multiple meetings with the affected property owners, including a public meeting with the Three Rivers WWTP Board.

The Port has a Projects and Proposals web page where the IRCE project is featured²¹. This page includes basic information regarding the project and a link to sign up for additional information. This page will continually evolve as the project moves forward.

The most recent public outreach efforts for the Proposed Action have included the following:

- A postcard sent to identified EJ communities in January 2023 to inform them of the Proposed Action, and other ongoing or upcoming projects, at the Port, that included scannable QR codes that link to project-specific webpages providing supplemental information for each project
- An update on the Proposed Action was included in the Port's Winter 2023 "Port Talk" newsletter, which was sent out to all residents in the port district
- A State Environmental Policy Act (SEPA) Mitigated Determination of Non-Significance (MDNS) for the project was posted for public comment in the local newspaper (The Daily News), on Ecology's Statewide SEPA Register²², and on the Port's website on March 29, 2023.
- A SEPA MDNS notice postcard mailer with QR code was sent to EJ communities on March 29, 2023

²¹ <https://www.portoflongview.com/316/Industrial-Rail-Corridor-Expansion>

²² <https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-Register>

Copies the January 2023 postcard mailer and the Winter 2023 issue of the “Port Talk” newsletter are provided in Appendix T as examples of public outreach documents prepared by the Port for the Proposed Action.

Appendix U provides a summary of public involvement and outreach activities that have occurred under the Proposed Action to date, as well as those proposed for the coming year. To date, the Port has not received any comments or feedback on the Proposed Action from the public. Ecology provided comments on the SEPA MDNS in an April 12, 2023, letter.

A draft of the EA was posted on the Port’s website (<https://www.portoflongview.com/211/Permitting>) on July 21, 2023, for a 30-day NOA period ending August 20, 2023, along with a link allowing for the submission of public comments. During that period, the Port received one comment letter from WDFW (Appendix V). In that letter, dated August 18, 2023, WDFW noted their concern about the potential effects of proposed tree and snag removal along the edges of the Log Pond on cavity-nesting birds and waterfowl. Additional details on WDFW’s concerns and the Port’s response are discussed in Sections 3.11.1 and 3.11.2. The Port has coordinated with WDFW on mitigation actions to address their concerns about the potential loss of cavity-nesting bird and waterfowl habitat. Documentation of that coordination is provided in an October 3, 2023, email submitted to the Port from WDFW and in an October 10, 2023, comment response summary letter from the Port to MARAD. Copies of those documents are included in Appendix V.

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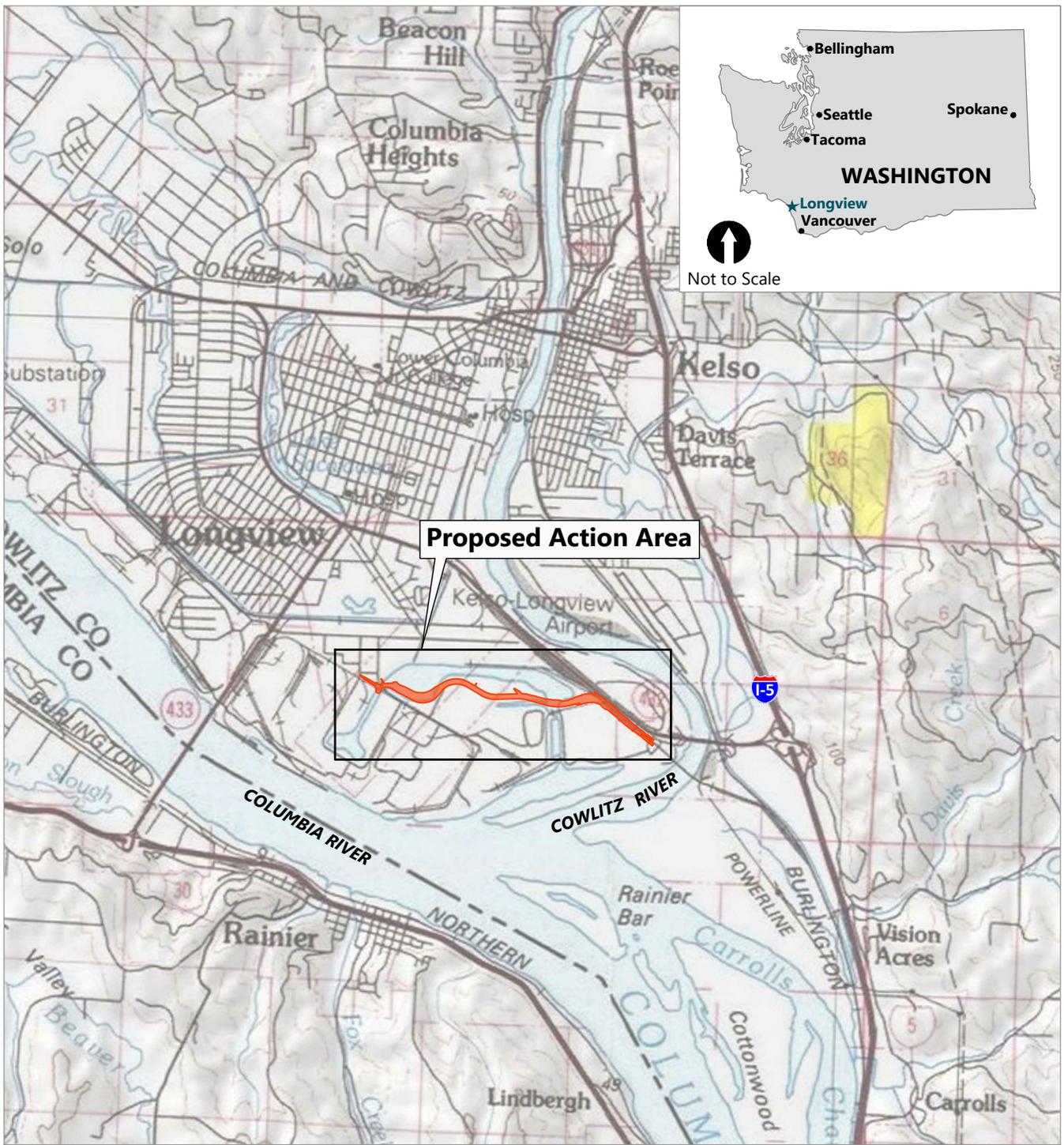
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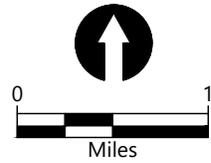
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Figures

Figures



SOURCE: © 2013 National Geographic Society, i-cubed
HORIZONTAL DATUM: Washington State Plane South Zone, NAD83, U.S. Survey Feet

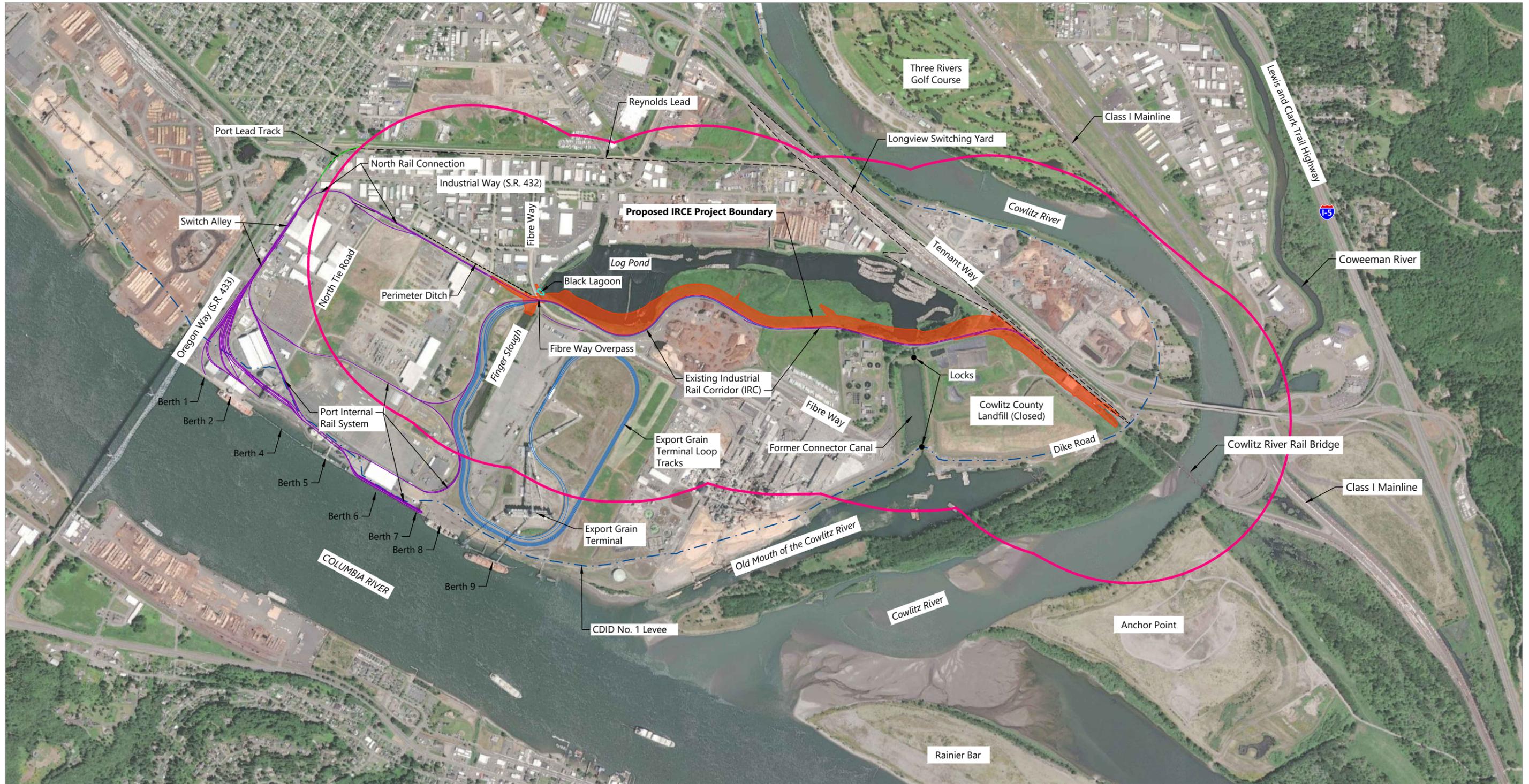


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Figure 1
Proposed Action Area Location Map

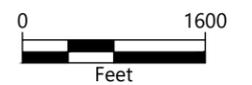
NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



SOURCE: CAD files provided by KPFF dated June 4, 2021. Aerial ©2022 Maxar dated May 29, 2021. CAD files provided by KPFF dated September 18, 2019.
HORIZONTAL DATUM: Washington State Plane South Zone, NAD83, U.S. Survey Feet

LEGEND:

— Area of Potential Effect
 (Endangered Species and Environmental Justice)



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Figure 2
Proposed Action Area Vicinity Map

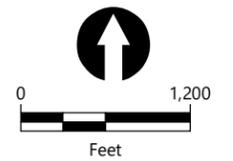
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 Port of Longview Industrial Rail Corridor Expansion Project



- LEGEND:**
- - - Existing Rail Alignment
 - Proposed Rail Centerline
 - Project Site
 - Area of Potential Effect (Endangered Species and Environmental Justice)

- NOTES:**
1. Aerial Imagery: ESRI Online Streaming Imagery
 2. Former property boundaries georeferenced from Geosearch, Cowlitz County, and Hydrocon figures.

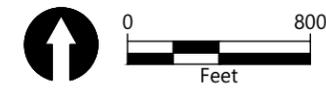
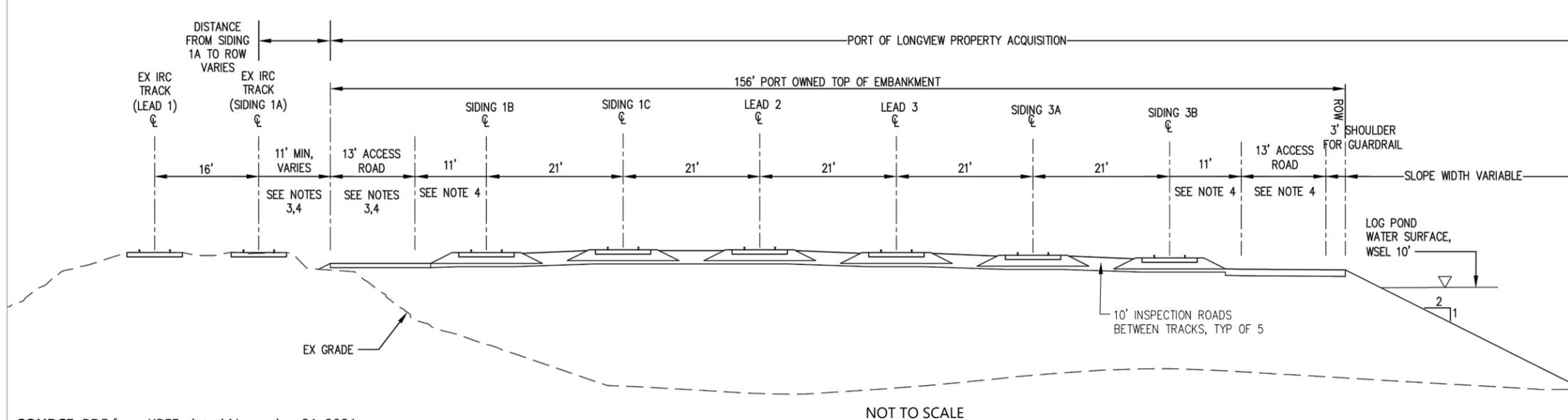
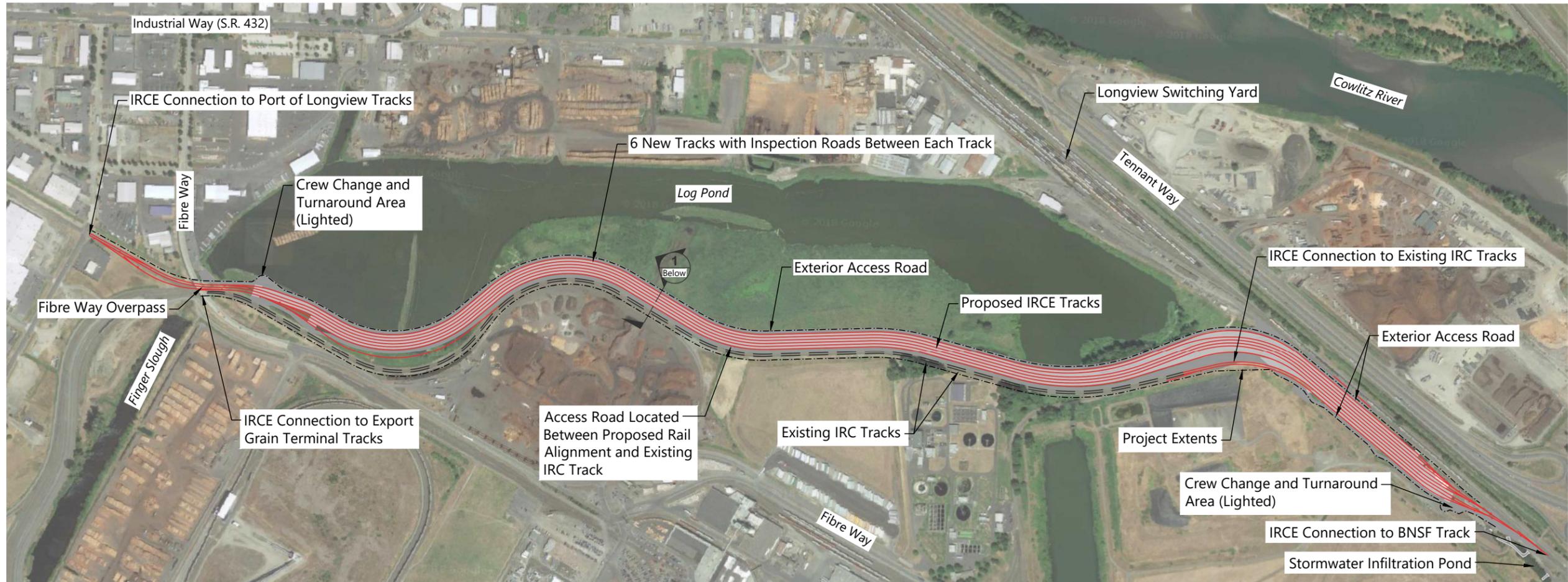
ESA: Environmental Site Assessment



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Figure 3
Land Use and Ownership Map
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



NOTES

1. THE 3' SHOULDER FOR GUARDRAIL WILL BE INSTALLED ONLY AT THE WATER CROSSINGS.
2. THE DISTANCE BETWEEN SIDING 1B AND EX TRACK (SIDING 1A) VARIES.
3. THE CORRIDOR SECTION THROUGH THE LANDFILL PROPERTY (6152701 COWLITZ CO) VARIES FROM THE TYPICAL SECTION SHOWN. LEAD 1 AND SIDING 1A ARE NEW TRACKS WITH CONSISTENT 21' TRACK CENTER SPACING. A 13' ACCESS ROAD FOLLOWS THE SOUTH SIDE OF LEAD 1.
4. ACCESS ROAD DIMENSION AND CLEARANCE FROM TRACK FOLLOWS "INDUSTRY TRACK STD SECTION WITH 13' ACCESS ROAD" DETAIL FROM [BNSF ENGINEERING SERVICES - 04/02/04, BNSF RAILWAY COMPANY GUIDELINES FOR INDUSTRY TRACK PROJECTS, AUGUST 2018, PAGE A-13].

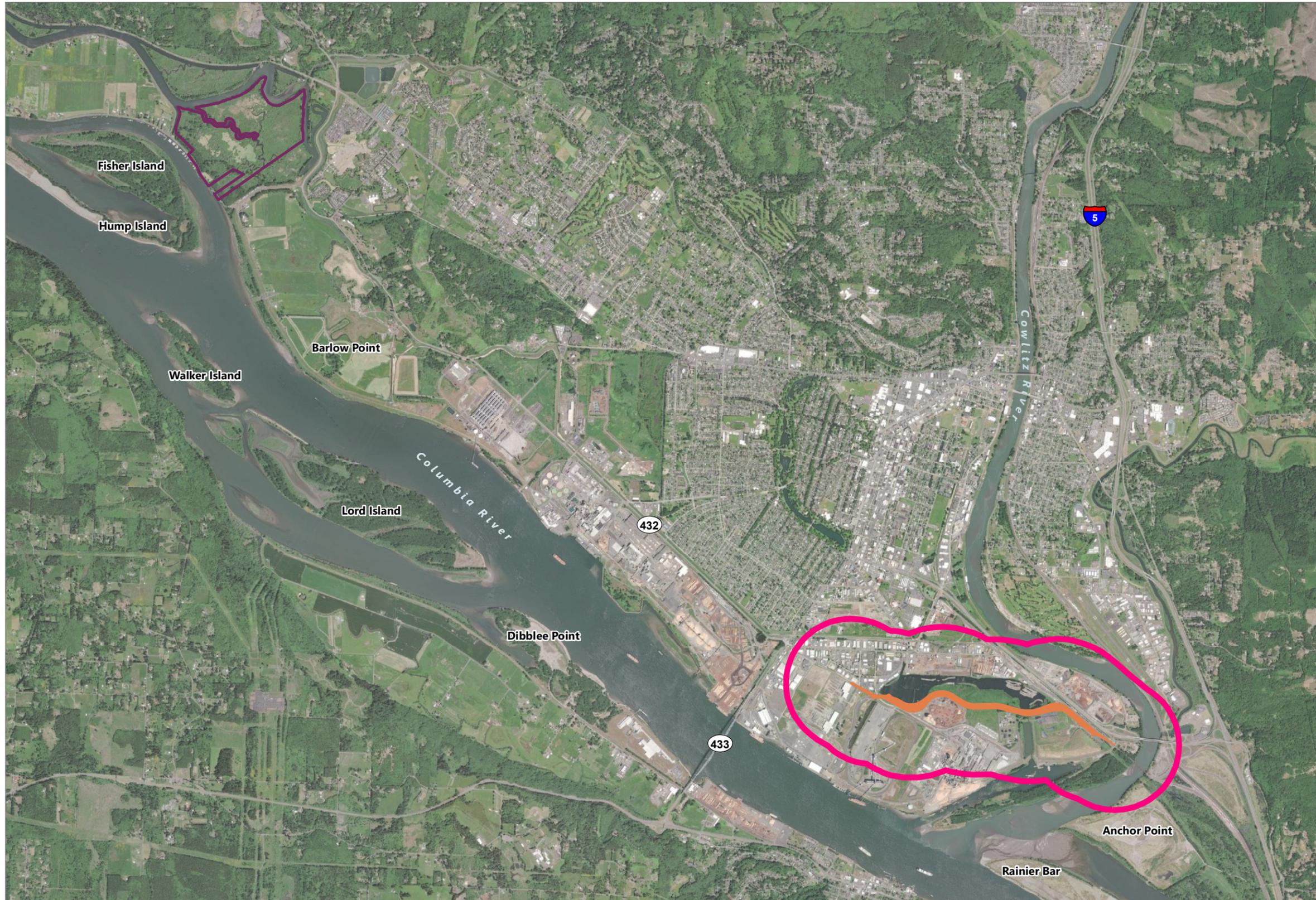
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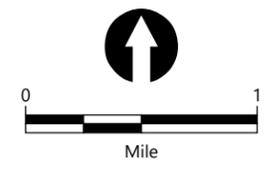
Figure 4
Proposed Action Overview and Typical Corridor Section

NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



- LEGEND:**
- Proposed Action Area
 - Area of Potential Effect (Endangered Species and Environmental Justice)
 - Willow Grove Wetland Mitigation Site

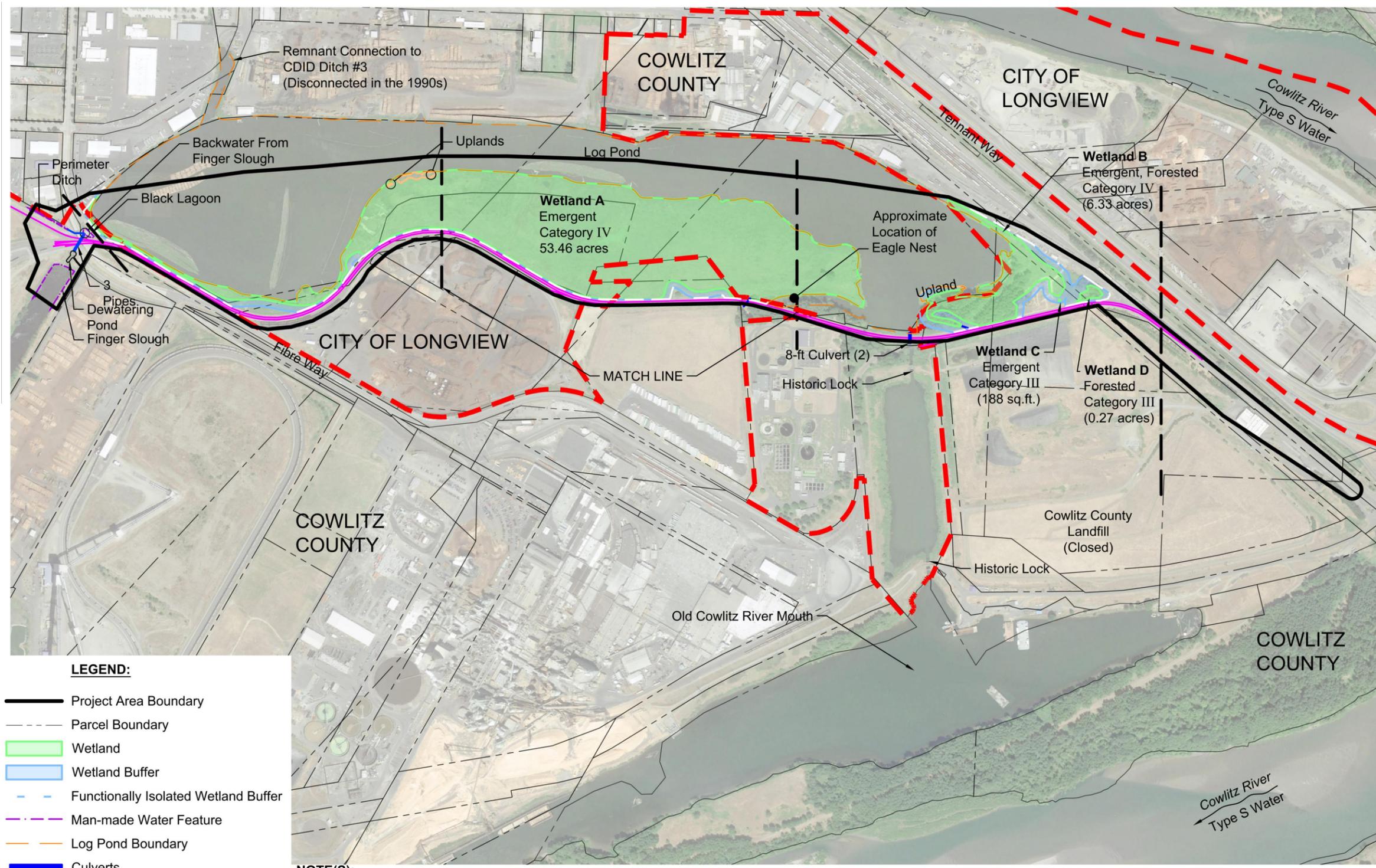
SOURCES:
 1. Aerial Imagery: ESRI Online Streaming Imagery



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Figure 5
Wetland Mitigation Site Location Map
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project

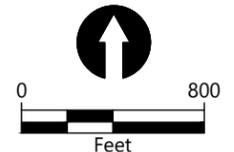


LEGEND:

- Project Area Boundary
- Parcel Boundary
- Wetland
- Wetland Buffer
- Functionally Isolated Wetland Buffer
- Man-made Water Feature
- Log Pond Boundary
- Culverts
- Current Rail Line
- City of Longview Boundary

NOTE(S):

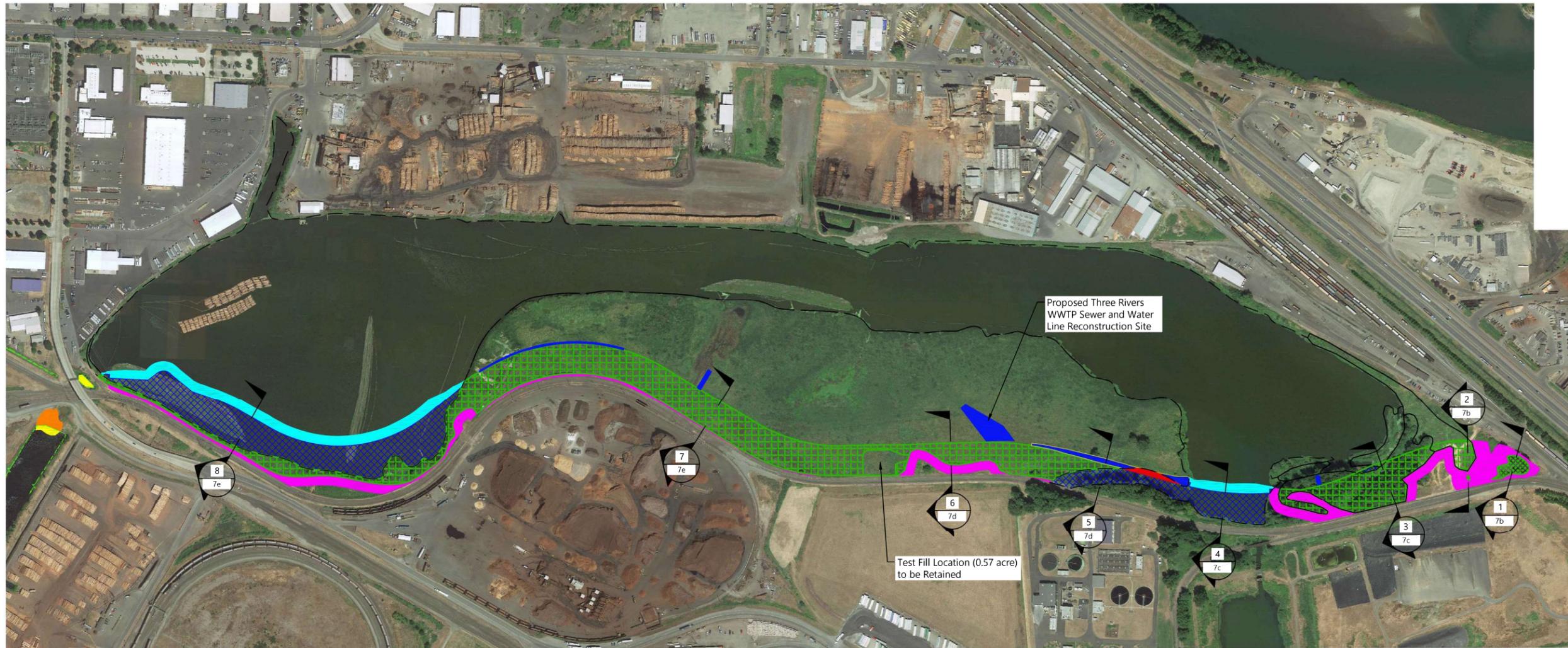
1. Aerial from Google Earth™.
2. Wetland boundary was recorded by ELS using a hand-held Trimble GPS unit with sub-two-meter accuracy.



SOURCE: PDF from Ecological Land Services, dated March 23, 2022



Figure 6
Wetland Delineation Map
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



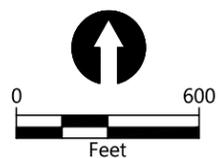
APPROXIMATE IMPACT AREA TOTALS:

	TOTAL
*WETLAND (CATEGORY III, IV):	15.91 AC
WETLAND TEMPORARY CONSTRUCTION:	1.12 AC
OPEN WATER ABOVE ELEV 10.3:	8.81 AC
OPEN WATER BELOW ELEV 10.3:	2.72 AC
OPEN WATER TEMPORARY IMPACT:	0.13 AC
WETLAND BUFFER AREA:	5.15 AC
STORMWATER FEATURE REMOVAL:	0.06 AC
STORMWATER FEATURE TEMP IMPACT:	0.08 AC
STORMWATER FEATURE ADDITION:	0.23 AC

*INCLUDES NON-JURISDICTIONAL WETLAND AREAS

LEGEND:

- FEDERALLY JURISDICTIONAL WETLAND PERMANENT IMPACT
- NON-FEDERALLY JURISDICTIONAL WETLAND PERMANENT IMPACT
- FEDERALLY JURISDICTIONAL WETLAND TEMPORARY CONSTRUCTION
- OPEN WATER PERMANENT IMPACT ABOVE ELEV 10.3
- OPEN WATER PERMANENT IMPACT BELOW ELEV 10.3
- OPEN WATER TEMPORARY CONSTRUCTION
- WETLAND BUFFER PERMANENT IMPACT
- STORMWATER FEATURE IMPACT
- STORMWATER FEATURE ADDITION
- CROSS SECTION - NUMBER AND SHEET LOCATION

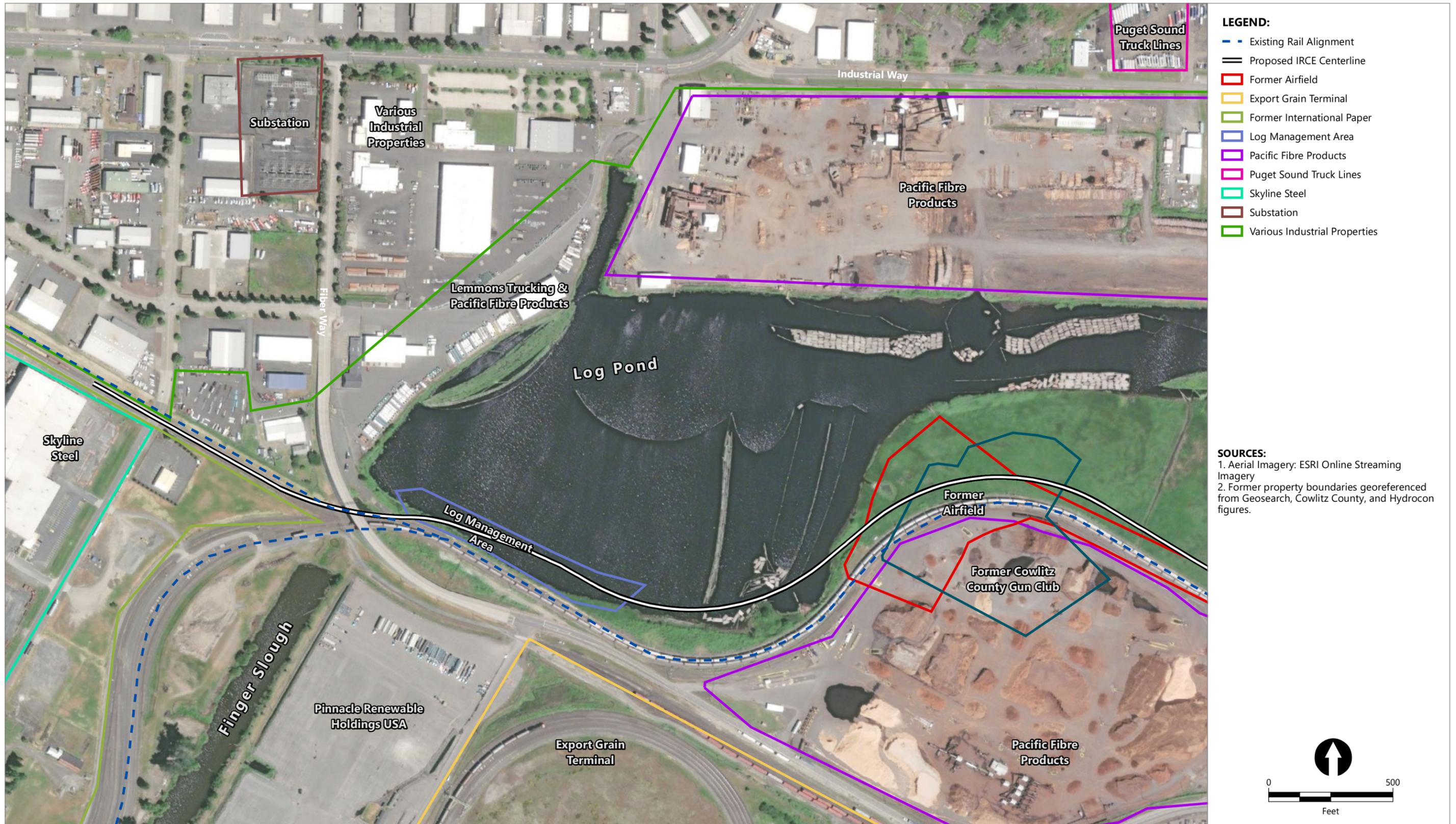


SOURCE: PDF from KPFF, dated November 21, 2021

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Figure 7
Proposed Wetland and Water Impacts
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



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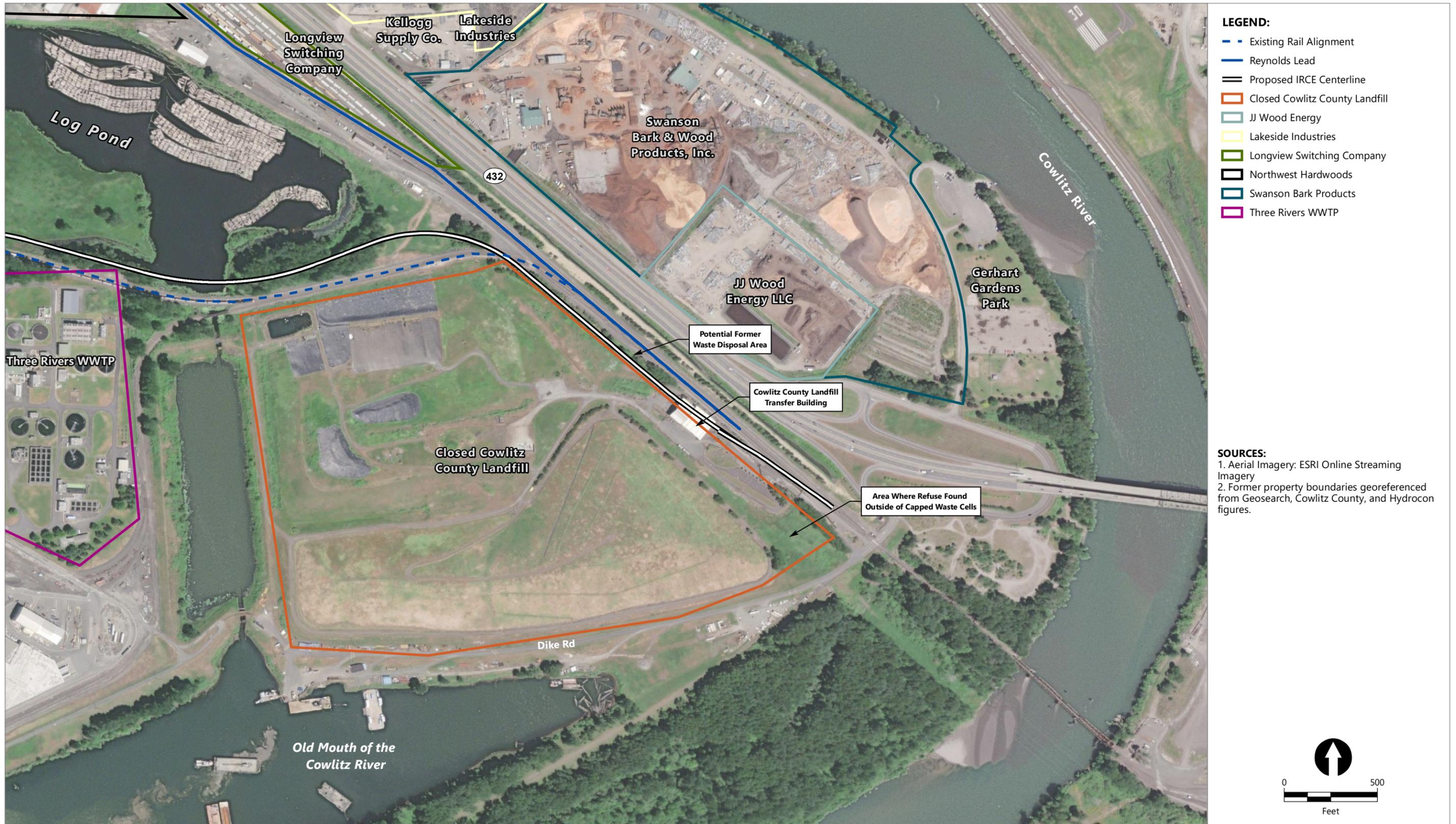
Figure 8a
Hazardous Materials Study Area—West Site
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



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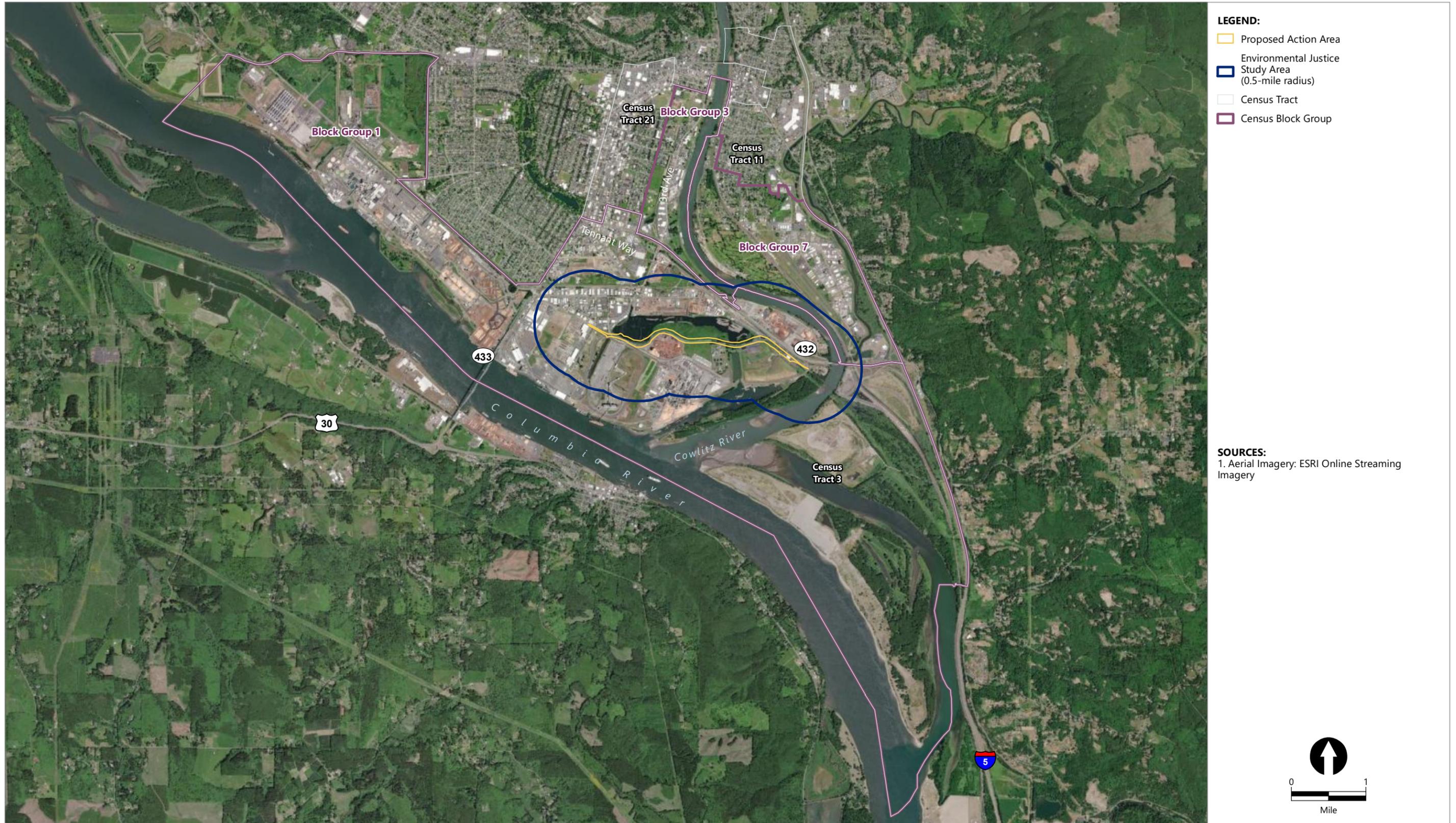
Figure 8b
Hazardous Materials Study Area—Center Site
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



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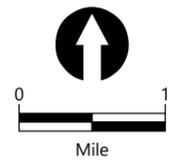
Figure 8c
Hazardous Materials Study Area—East Site
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project



LEGEND:

- Proposed Action Area
- Environmental Justice Study Area (0.5-mile radius)
- Census Tract
- Census Block Group

SOURCES:
 1. Aerial Imagery: ESRI Online Streaming Imagery



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Figure 9
Socioeconomics and Environmental Justice Study Area
 NEPA Environmental Assessment
 Port of Longview Industrial Rail Corridor Expansion Project