Attachment I Public Services and Utilities Technical Study



July 2023 Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project



Public Services and Utilities Technical Study

Prepared for Port of Grays Harbor and Ag Processing, Inc.

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Prepared for Port of Grays Harbor Ag Processing, Inc. **Prepared by** Anchor QEA, LLC

TABLE OF CONTENTS

1	Intro	oductio	n	1
	1.1	Locatio	on and Regional Setting	1
	1.2	Project	Area	1
2	Prop	osed F	Project and Alternatives	5
3	Regu	ulatory	Context	6
	3.1	Regula	tions	6
	3.2	Requir	ed Permits and Approvals	7
		3.2.1	Federal	7
		3.2.2	State	8
		3.2.3	Local	8
4	Info	rmatio	n Sources	9
5 Affected Environment		nvironment	10	
	5.1	Study	Area	10
	5.2	Backgr	ound	10
	5.3	Police	Services	14
	5.4	Fire Pr	otection and Emergency Medical Services	14
		5.4.1	Aberdeen Fire Department	15
		5.4.2	Hoquiam Fire Department	15
		5.4.3	Other Local Response Assets	15
	5.5	School	S	16
	5.6	Librarie	es, Parks, and Other Recreational Facilities	17
	5.7	U.S. Pc	stal Service	17
	5.8	Cemet	eries	17
	5.9	Water	Supply	18
	5.10	Waste	water	19
	5.11	Storm	vater	19
	5.12	Solid V	Vaste Disposal	20
	5.13	Electric	ity and Natural Gas	21
	5.14	Teleco	mmunications	22
6	Envi	ronme	ntal Consequences	23
	6.1	Assum	ptions	23

6.2	6.2 Approach		
	6.2.1	Approach to Analysis	
	6.2.2	Impact Terminology	24
6.3	Metho	ds	25
6.4	No Act	tion Alternative	
	6.4.1	Police Services	
	6.4.2	Fire Protection and Emergency Medical Services	27
	6.4.3	Schools	
	6.4.4	Libraries, Parks, and Other Recreational Facilities	27
	6.4.5	U.S. Postal Service	27
	6.4.6	Cemeteries	
	6.4.7	Water Supply	27
	6.4.8	Wastewater	
	6.4.9	Stormwater	
	6.4.10	Solid Waste Disposal	
	6.4.11	Electricity and Natural Gas	
	6.4.12	Telecommunications	
6.5	Propos	sed Project	29
	6.5.1	Construction	29
	6.5.2	Operation	
6.6	Cumul	ative Impacts	41
	6.6.1	Past, Present, and Reasonably Foreseeable Future Actions	41
	6.6.2	Cumulative Impacts Analysis	
млі +і	aation		лл
IVIILI	gation		
Refe	erences		

TABLES

7

8

Table 1	Laws and Regulations for Public Services and Utilities	6
Table 2	Impact Thresholds for Public Services and Utilities	25

FIGURES

Figure 1	On-Site Project Area	3
		,

Figure 2	Off-Site Project Area4
Figure 3	Public Services Facilities Serving the On-Site Project Area
Figure 4	Major Utilities Infrastructure Within and Adjacent to the On-Site Project Area
Figure 5	Public Services Direct Impacts
Figure 6	Utilities Direct Impacts

ABBREVIATIONS

APWD	City of Aberdeen Public Works Department
AGP	Ag Processing, Inc.
AFD	Aberdeen Fire Department
AMC	City of Aberdeen Municipal Code
APD	Aberdeen Police Department
BPA	Bonneville Power Administration
Ecology	Washington State Department of Ecology
GHPUD	Grays Harbor Public Utility District
HFD	Hoquiam Fire Department
HMC	City of Hoquiam Municipal Code
HPD	Hoquiam Police Department
MGD	million gallons per day
NPDES	National Pollutant Discharge Elimination System
Port	Port of Grays Harbor
PSAP	Puget Sound and Pacific Railroad
RCW	Revised Code of Washington
SEPA	Washington State Environmental Policy Act
SWPPP	stormwater pollution prevention plan
USC	United States Code
USCG	U.S. Coast Guard
WAC	Washington Administrative Code
WSP	Washington State Patrol
WWTP	wastewater treatment plant

1 Introduction

The Port of Grays Harbor (Port) is proposing the Terminal 4 (T4) Expansion and Redevelopment Project to increase rail and shipping capacity at Terminal 4 at the Port located in the cities of Hoquiam and Aberdeen, Washington, to accommodate growth of dry bulk, breakbulk, and roll-on/roll-off cargos. This includes the rail upgrades and site improvements, the Terminal 4A cargo yard relocation and expansion, and the Terminal 4 dock fender and stormwater upgrades. These project elements would be constructed by the Port and are referred to as the Port Project. It also includes a new export terminal by Ag Processing, Inc. (AGP) at Terminal 4. This project element is referred to as the AGP Project. Together, the Port Project and AGP Project are referred to as the Proposed Project.

The purpose of this technical study is to describe the affected environment and potential impacts of the Proposed Project and its alternatives on public services and utilities. This includes police services; fire protection and emergency medical services; schools; libraries, parks, and other recreational facilities; the U.S. Postal Services; and cemeteries. This technical study will be used to support environmental review of the Proposed Project by the state and federal agencies with a funding, jurisdictional, or permitting authority over the Proposed Project. This includes compliance with the Washington State Environmental Policy Act (SEPA) and the National Environmental Policy Act. This technical study will be used as supporting documentation for permitting efforts.

1.1 Location and Regional Setting

Figure 1 shows the location and regional setting of the Port. The Port was founded in 1911 and is located on the Pacific coast of Washington state in in the cities of Hoquiam and Aberdeen in Grays Harbor County. The Port is located near where the Chehalis River enters Grays Harbor, approximately 15 miles east from the Pacific Ocean. The Pacific Ocean is accessed from the Port via the Grays Harbor deep-draft federal navigation channel within Grays Harbor. The Proposed Project does not include expansion or deepening of the Grays Harbor federal navigation channel. Rennie Island is just south of the Port and is within Grays Harbor. Bowerman Airport is approximately 4 miles westnorthwest of the Port.

1.2 Project Area

The Project Area consists of the area where the proposed facilities would be located, called the On-Site Project Area, and the existing off-site transportation corridors, called the Off-Site Project Area. The On-Site Project Area includes the area that will be directly affected by construction and operation of the Proposed Project (Figure 1). Local road access to the On-Site Project Area is provided via Port Industrial Road. Further access to the Project Area is provided by Heron Street, East Terminal Road, and West Terminal Way. Both East Terminal Road and West Terminal Way intersect with Port Industrial Road. These roads used for access can be found in Figure 1. Regional highway connections include U.S. Route 12 and U.S. Route 101.

1

The Off-Site Project Area includes off-site transportation corridors used for rail and vessel transportation (Figure 2). This includes the Puget Sound and Pacific Railroad (PSAP) line from the Port property to the connection with the BNSF Railway and Union Pacific Railroad mainline in Centralia, Washington, and the Chehalis River and Grays Harbor federal navigation channel from the Port property, through Grays Harbor, to the Pacific Ocean and up to 3 nautical miles offshore from the southern mouth of Grays Harbor. The Proposed Project will likely include rail construction on property owned by others (PSAP or other private owners) along the PSAP rail corridor east of West Heron Street. It has not been established whether the additional segment of rail needed to serve the site will be built and owned by the PSAP, built and owned by the Port, or some other combination of ownership and leasing. Specific study areas for the analysis of potential impacts of the Proposed Project is defined in Section 5.1 based on the potential for effects to public services and utilities.

2

Figure 1 On-Site Project Area



Figure 2 **Off-Site Project Area** Everett Olympic National Park Seattle Aberdeen Olympia Pacific Ocean 101 Project 109 Site **Ocean Shores** Miles Elma 12 Hoquiam Aberdeen Montesano 12 101 **Padific** Ocean Westport 105 12 105 Legend On-Site Project Area Centralia City Limits 12 Off-Site Vessel Transportation Study Area 101 6 6 Off-Site Rail Transportation Study Area Rail Line Major Road

2 Proposed Project and Alternatives

Two alternatives are evaluated in this study: the Proposed Project and a No Action Alternative. Additional details about these alternatives are documented in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a). The alternatives include the following:

- Alternative 1 (Proposed Project). As noted in Section 1 and as further described in the Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report (Anchor QEA 2023a), the Proposed Project consists of the Port Project and the AGP Project. The Port Project includes the following: 1) rail upgrades and site improvements; 2) Terminal 4 dock, fender, and stormwater upgrades; and 3) cargo yard relocation and expansion. In addition to these proposed upgrades at Terminal 4, AGP, an existing tenant of the Port, intends to upgrade Terminal 4B to include improved rail receiving facilities, a new shiploader, and a soybean meal storage structure (referred to as a surge silo). The primary elements of the Proposed Project could be constructed in phases.
- No Action Alternative. The No Action Alternative represents the conditions anticipated without construction and operation of the Proposed Project over the course of the construction analysis period of 2024 to 2025 and the operations analysis period from 2025 to 2045. Although the Port would not complete the proposed infrastructure enhancements or redevelop the Terminal 4 cargo yard under the No Action Alternative, it is anticipated that the Port would pursue growth opportunities within the existing Port footprint. It is also assumed that AGP would not complete the proposed infrastructure enhancements at Terminal 4B, but AGP would maximize its operations at the existing Terminal 2 facility. However, under the No Action Alternative, the Port would continue to operate and maintain T4 as it exists under existing conditions and would continue to seek out new business. Because activity under the No Action Alternative would be limited to current port infrastructure and terminal capacity limits, the No Action alternative is anticipated to result in operations similar to existing conditions.

3 Regulatory Context

3.1 Regulations

Table 1 presents the regulations, statutes, and guidelines that apply to public services and utilities. Note that state and local laws and regulations relating to public services and utilities implement any applicable federal regulations, statutes, and guidelines, so such federal laws/regulations are not listed in the table.

Table 1

Regulation, Statute, or Guideline	Description
Fed	eral
No federal laws or regulations ap	oly to public services and utilities.
Sta	te
Washington RCW 35.21.766, 35.22.570, and 35.27.370(15)	Establish emergency dispatch and ambulance services as a public utility.
Building Permit Application – Evidence of Adequate Water Supply (RCW 19.27.097)	Requires applicant to provide evidence of adequate water supply for the intended use of the building.
Public utilities must comply with various laws and regulations, including RCW 19.122, RCW 35.92, RCW 47.24, RCW 47.52, WAC 468-34, and WAC 468-34	Various laws and regulations address the authority to operate utilities, the undergrounding of utilities, and encroachments; Control Zone guidelines; utilities on scenic highways; etc.
Building Permit Application – Prohibited Methods of Sewage Disposal (RCW 43.20.050)	Prohibits the disposal of sewage and industrial waste in a manner that would negatively affect the domestic water supply or endanger the health and wellbeing of the people of the state.
Solid Waste Management – Reduction and Recycling (RCW 70A.205)	Lists the requirements for comprehensive solid waste management plans, permitting, and other regulations of solid waste management systems.
Washington State Energy Code, Commercial Provisions (WAC 51-11C)	Regulates the design and construction of buildings for the use and conservation of energy over the life of each building.
Gas and Hazardous Liquid Hazardous Liquid Pipelines (RCW 81.88)	Protects the health and safety of citizens and the quality of the state's environment by implementing environmental and public safety measures for transporting hazardous liquids and gas by pipeline within the state of Washington
Loc	cal
Adoption of International Fire Code (HMC 2.38 and AMC 15.12)	Recognize that the respective city has adopted the International Fire Code, 2012 Edition, as the official fire code of the city.

Laws and Regulations for Public Services and Utilities

Regulation, Statute, or Guideline	Description
AMC Chapter 13.80	Establishes emergency dispatch and ambulance services as a public utility.
AMC Chapters 13.56	Sets requirements and specifications for use of City of Aberdeen water supply regarding connections and maintenance of pipelines, provisions to avoid insufficient supply for fire flow, permitting, emergency water use restrictions, and fire protection services.
AMC Chapters 13.20, 13.48, and 13.52	List sewer system regulations, including the regulation of construction in sewer system rights-of-way.
Solid Waste and Recyclable Materials Collection System (AMC 13.08)	
Solid Waste Disposal Sites (HMC 3.16.030) and Garbage Disposal (HMC 13.20)	Regulate safe, reliable, and responsible use of public
Grays Harbor County • Chapter 8.12, Litter Control	services by establishing systems for the collection, removal, and disposal of solid waste and recyclables and indicating that other forms of disposal is unlawful.
Chapter 8.28, Solid Waste Collection and Disposal	
Grays Harbor County Board of Health • Ordinance 2004-1, Grays Harbor County Solid Waste Handling Standards	
AMC Chapters 13.24 and 13.70	Regulate storm and surface water management and injury to the drainage system.
AMC Chapter 13.04	Regulates permitting and other aspects of the natural gas distribution system.
AMC Chapters 13.12 and 13.40	Regulate the laying of utility mains and electrical wires and the permitting of telecommunications infrastructure not governed by federal regulations.

3.2 Required Permits and Approvals

Sections 3.2.1 through 3.2.3 present the required permits and approvals that apply to public services and utilities.

3.2.1 Federal

The following federal permits and approvals are required:

 National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit per 33 United States Code (USC) 1342 et seq.; Revised Code of Washington (RCW) 90.48 (administered by the Washington State Department of Ecology [Ecology]; required for construction activities that disturb one or more acre of land through clearing, grading, excavating, or stockpiling of fill material where there is a possibility that stormwater runoff from the construction site could enter a surface water of the State)

• NPDES Industrial Stormwater General Permit per 33 USC 1342; RCW 90.48 (administered by Ecology; required for industrial operations that discharge stormwater from their sites to a surface water or storm sewer system that drains to a surface water of the State)

3.2.2 State

The following state permits and approvals are required:

• Ecology must approve any project involving discharge of wastewater and any impacts to water quality for nearby waterbodies and wetlands. Ecology also regulates and requires spill prevention plans for all projects. A spill prevention plan is required for all utility installations, whether on state rights-of-way or not.

3.2.3 Local

The following local permits and approvals are required:

- City of Aberdeen Development Permits (includes building permit, grade and fill permit, and demolition permit)
- City of Hoquiam Development Permits (includes building permit, grade and fill permit, and demolition permit)

Additional permits associated with stormwater are described in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Water Resources Technical Study* (Anchor QEA 2023b).

4 Information Sources

The following information sources were used to describe existing conditions and expected future conditions for public services and utilities within the Project Area to support the impact analysis:

- Public service and utility provider websites
- Published reports, including previous environmental documents, describing existing conditions at the Proposed Project site
- Local land use, utility, resource management, and harbor safety plans
- Publicly available GIS data layers
- Various sources of information regarding the design, construction, and operation of the Proposed Project provided by the Port of Grays Harbor and AGP
- Google Earth maps and satellite imagery

Section 8 of this technical study includes full references for all information sources consulted in the preparation of this technical study.

5 Affected Environment

5.1 Study Area

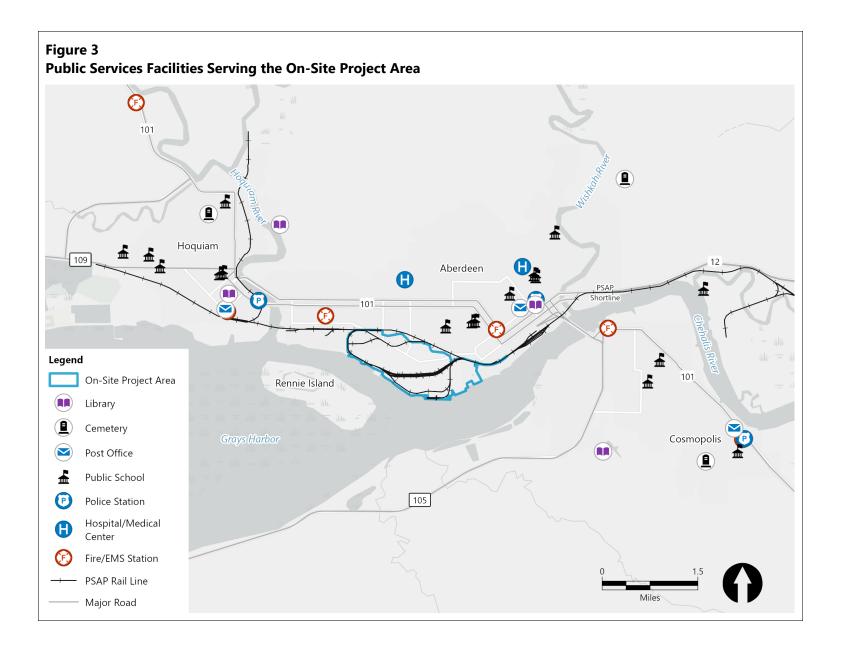
The study area for public services and utilities consists of the service areas that encompass the On-Site Project Area that could be affected by construction and routine operation of the Proposed Project (see Figure 1). These service areas are described for each public service and utility, but generally consist of the cities of Aberdeen and Hoquiam, and in some cases, the City of Cosmopolis.

The On-Site Project Area is the area most likely to experience direct impacts from construction and operation of Proposed Project. Most physical project changes would occur in this area. Indirect impacts (primarily traffic and development changes) from the project alternatives may occur within the study area outside the On-Site Project Area.

Because transport along the PSAP and in the Grays Harbor federal navigation channel from the Port property to the Pacific Ocean would occur within existing transportation corridors, the Proposed Project would not likely require the provision of new or additional public services or utilities in the Off-Site Project Area to accommodate the increased traffic associated with operation of the Proposed Project. Therefore, existing public services and utilities in these areas are not described, and impacts are addressed on a general, qualitative basis.

5.2 Background

Public services provided in the study area include police services; fire protection and emergency medical services; schools; libraries, parks, and other recreational facilities; the U.S. Postal Services; and cemeteries. The existing locations of public services providers in the vicinity of the On-Site Project Area are shown in Figure 3.



The utilities present in the Project Areas and evaluated in this study are potable and industrial water supply; wastewater collection and treatment; stormwater conveyance and treatment; solid waste collection and disposal; energy supply (electrical power and natural gas); and telecommunications. The approximate existing locations of public utilities present in the On-Site Project Area are shown in Figure 4 according to available data.

Figure 4 Major Utilities Infrastructure Within and Adjacent to the On-Site Project Area



The delivery of public services requires site access. As noted in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a), local road access to the On-Site Project Area is provided via Port Industrial Road. Additional access to the Project Area is provided by West Heron Street, East Terminal Road, and West Terminal Way. Both East Terminal Road and West Terminal Way intersect with Port Industrial Road. Regional highway connections include U.S. Route 12 and U.S. Route 101. West Heron Street directly connects to U.S. Route 101 and is classified as a truck route per Aberdeen Municipal Code Chapter 10.60.

5.3 Police Services

Maritime activities at the Port are subject to federal security. As an agency of the federal Department of Homeland Security, the Transportation Security Administration oversees the security for Port properties. The U.S. Coast Guard (USCG), in cooperation with Ecology, has responsibility for all commercial vessel and waterways management, marine safety, port security, and environmental issues in Grays Harbor. The USCG is responsible for Search and Rescue, Vessel Port State Control Inspections, Aids to Navigation, Harbor Security, and Pollution Prevention and Response (Grays Harbor Safety Committee 2014). As an indicator of the USCG's policing capacity, records since 1989 show the number of annual ship calls have been as high as 214 annual ship calls and 179 annual barge calls (Anchor QEA 2023a).

The Aberdeen Police Department (APD) and Hoquiam Police Department (HPD) provide law enforcement services in the vicinity of the On-Site Project Area. The APD currently has approximately 38 commissioned officers and 17 civilian staff members (City of Aberdeen 2023a). The HPD consists of 27 full-time positions, including 14 sworn officers (City of Hoquiam 2023a). As shown in Figure 3, APD headquarters is colocated with the Aberdeen Municipal Court (City of Aberdeen 2023b) at 210 East Market Street, Aberdeen, approximately 1 mile northeast of the On-Site Project Area, and HPD headquarters is located at 215 10th Street, Hoquiam, approximately 1 mile northwest of the On-Site Project Area. The Hoquiam Municipal Courthouse is located just east of HPD headquarters at 609 8th Street (City of Hoquiam 2023b), approximately 1.3 miles from the On-Site Project Area.

The Washington State Patrol (WSP) provides law enforcement services along the state and interstate rights-of-way within Washington, including the Off-Site Project Area. WSP District 8 provides services to the western portion of the Off-Site Project Area, whereas the eastern portion is served by WSP District 5 (WSP 2023).

5.4 Fire Protection and Emergency Medical Services

The Port and commercial facilities in the On-Site Project Area, as well as the populations of Aberdeen and Hoquiam, rely on the Aberdeen Fire Department (AFD) and Hoquiam Fire Department (HFD) for initial response to fires and other emergencies.

5.4.1 Aberdeen Fire Department

The AFD provides fire protection and emergency medical services to the city of Aberdeen and emergency medical services coverage outside of the city. This includes initial fire response for railway incidents on the east side of the Port of Grays Harbor, Poynor Yard (the rail switching yard between the On-Site Project Area and the Wishkah River), and the rail line through East Aberdeen.

AFD includes two stations: the north-side headquarters station at 700 West Market Street (approximately 0.3 mile northeast of the On-Site Project Area) and a substation in south Aberdeen across the Chehalis River at 700 West Curtis Street (approximately 1.4 miles east of the On-Site Project Area). Staffing at both stations includes approximately 33 uniformed personnel, one emergency medical services account specialist, and one department chaplain. Eight to ten personnel staff both stations daily and firefighters are trained in paramedic and emergency medical technician-level services (City of Aberdeen 2023c).

5.4.2 Hoquiam Fire Department

The HFD provides 24-hour fire protection and emergency medical services to the City of Hoquiam and neighboring areas. HFD's headquarters station is located at 625 8th Street and a second station, closer to the project site, is located at 517 Ontario Street. The headquarters station is approximately 2 miles from the project site; the second station on Ontario Street is approximately 1 mile from the project site. In the event of a spill or fire at the project site, personnel from one or both stations may be dispatched, depending on other obligations. The fire department consists of seven personnel that rotate through three shifts to have three full-time personnel on call at one time. Currently, the station responds to approximately 3,000 calls per year. A majority of these are related to emergency medical services, with a small percentage being fire-related. The HFD works with the AFD through an agreement that provides for, in some situations, automatic aid that is dispatched simultaneously so that both departments respond to calls together, and in other situations, mutual aid if requested once the host department determines it requires additional resources (Cities of Aberdeen and Hoquiam Fire Departments 2019).

5.4.3 Other Local Response Assets

The Cosmopolis Fire Department is a volunteer fire department located approximately 4.5 miles southeast of the project site (City of Cosmopolis 2023). The fire department of the city of Ocean Shores could also support an emergency at the project site (City of Hoquiam and Washington State Department of Ecology 2016).

In addition to these municipal fire departments, the Grays Harbor Fire Protection Districts 1 (Oakville), 2 (Brady/Central Park/Wynoochee), 5 (Elma/Porter/Satsop), and 10 (Wishkah/East Hoquiam) and the South Beach Regional Fire Authority are available to provide personnel and equipment in the On-Site

or Off-Site Project Areas in the event of an emergency (City of Hoquiam and Washington State Department of Ecology 2016 and Grays Harbor County 2023).

The Port published the Harbor Safety Plan for Grays Harbor in 2014, detailing actions to be taken by employees on site in the event of an emergency. It stipulates notifications to the National Response Center, the USCG, and the U.S. Environmental Protection Agency in the case of a spill, fire, or explosion (Grays Harbor Safety Committee 2014).

The Grays Harbor County Local Emergency Planning Committee supports community preparedness and manages the development, maintenance, and promulgation of the County Comprehensive Emergency Management Plan, which is the guidance for local fire departments and other agencies responding to any oil spill or hazardous material incident in the On-Site Project Area. A hazardous materials response at the project site would involve personnel and equipment from the AFD and HFD under their mutual aid agreement (Grays Harbor Safety Committee 2014).

When a fire or other emergency, such as a hazardous material release, exceeds the firefighting and hazardous material capacity of local jurisdictions, additional federal and state resources can be requested for assistance. For example, the state's Fire Service Resource Mobilization Plan provides personnel, equipment, and other logistical resources from around the state (Washington State Patrol Office of the State Fire Marshal 2016).

For emergency medical situations, the nearest hospital to the On-Site Project Area is Harbor Regional Health Community Hospital Main Campus at 915 Anderson Drive in Aberdeen, approximately 0.5 mile north of the On-Site Project Area. This hospital has an additional location (East Campus) at 1006 North H Street, Aberdeen (Harbor Regional Health Community Hospital 2023), approximately 1 mile northeast of the On-Site Project Area.

5.5 Schools

The Aberdeen School District includes one high school, one middle school, five elementary schools, and one learning center. Currently, it has a student population of approximately 3,300 students, with a staff of 164 teachers plus support staff (Public School Review 2023a). The Hoquiam School District includes one high school, one middle school, and four elementary schools. Its current student population is approximately 1,600, with a staff of 87 teachers plus support staff (Public School Review 2023b).

The closest school to the On-Site Project Area is A.J. West Elementary at 1801 Bay Avenue, approximately 0.2 mile north of the northern boundary of the On-Site Project Area.

5.6 Libraries, Parks, and Other Recreational Facilities

The current public library building owned by the City of Aberdeen opened in 2000, although library service in Aberdeen began in 1890 (Timberland Regional Library 2023a). It is located at 121 East Market Street, Aberdeen, approximately 0.8 mile northeast of the On-Site Project Area. The Hoquiam public library, which is on the National Register of Historic Places, is located at 420 7th Street, Hoquiam, approximately 1.3 miles northwest of the On-Site Project Area (Timberland Regional Library 2023b).

The 2017-2022 Aberdeen Parks and Recreation Department Comprehensive Plan (City of Aberdeen 2018) identified 28 recreational facilities. The *City of Hoquiam Comprehensive Land Use Plan – Hometown Hoquiam 2028* identified 28 recreational facilities, including approximately 84 acres of parkland (City of Hoquiam 2009).

The 28th Street Boat Launch and Viewing Tower is located within the On-Site Project Area where 28th Street ends at the Chehalis River. The facility is owned by the Port of Grays Harbor and offers boaters a two-lane boat launch and nearby trailer parking. The facility also includes a tower that provides views of port operations.

No other parks or recreational facilities are present in the On-Site or Off-Site Project Areas. The nearest parks to project site are West End Playfield at 2501 Bay Avenue in Aberdeen (adjacent to the rail line at the northern boundary of the On-Site Project Area), Franklin Field Park at Market and North Jefferson in Aberdeen (approximately 0.5 mile east of the On-Site Project Area), Cultivating Roots Park at 2109 Sumner Avenue in Aberdeen (approximately 0.5 mile north of the On-Site Project Area), and Finch Playfield on Cherry Street in Aberdeen (approximately 0.8 mile northeast of the On-Site Project Area).

No other libraries, parks, or recreational facilities are located within 1 mile of the On-Site Project Area.

5.7 U.S. Postal Service

The closest U.S. Postal Service office is located at 115 North K Street in Aberdeen, approximately 0.6 mile northeast of the On-Site Project Area. Postal delivery service is provided to residences and businesses in the On-Site Project Area and vicinity.

5.8 Cemeteries

The closest cemeteries to the On-Site Project Area are Fernhill Cemetery and Petland Cemetery, both located at 2212 Roosevelt Street, Aberdeen, approximately 2.3 miles northeast of the On-Site Project Area.

5.9 Water Supply

The City of Aberdeen Public Works Department (APWD) supplies water to the On-Site Project Area, with the exception of a small area in the northwestern corner of the On-Site Project Area that is outside the APWD service area and may, therefore, be supplied by the Hoquiam Public Works Department (City of Aberdeen 2021). Potable water in the On-Site Project Area is supplied to structures and for fire suppression on the site.

The source of the Aberdeen municipal water supply is the Wishkah River, which is impounded in the Malinowski Dam, via a 28-inch diameter gravity main. Raw water from this source is filtered, chlorinated, disinfected, and treated at the water treatment plant located on Squirrel Road, approximately 10 miles north of the On-Site Project Area. Two interties with the City of Hoquiam, which has its own water system, are available for emergency use. The total system production was 942 million gallons in 2010 and has remained stable since (City of Aberdeen 2021).

The City of Aberdeen has no recycled water system. Its industrial water system provides a source of non-potable water supply to industrial facilities in Aberdeen, Cosmopolis, and Hoquiam. In this system, water is diverted from the Wynoochee River, conveyed through a tunnel to Lake Aberdeen, and then fed by gravity into two pipelines leading to customer sites in Cosmopolis and Hoquiam (City of Aberdeen 2021).

The Hoquiam segment of this system that currently serves the Port of Grays Harbor is a 7-mile long, 48-inch-diameter pipeline with a capacity of 16 million gallons per day (MGD) passing through downtown Aberdeen and the Port of Grays Harbor. The industrial water system is not connected to the City's potable distribution system (City of Aberdeen 2021). Presently, the only connection of the industrial water system in Aberdeen or Hoquiam in port property is to the Renewable Energy Group bulk transload facility at Terminal 1.

The City of Hoquiam supplies water to a small area in the northwestern corner of the On-Site Project Area. Hoquiam receives its water from reservoirs on Davis Creek and the West Fork Hoquiam River via its water treatment plant, which is capable of producing 4.0 MGD (City of Hoquiam 2009).

The network of known waterlines supplying potable water in the On-Site Project Area is shown in Figure 4. The *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a) notes that an existing jet array system is located below the soffit of the concrete deck. The purpose of the jet array system is to reduce the amount of dredging required to maintain vessel access to the berth. The jet array system is a closed system that pumps water from the river and directs it through valves and nozzles located near the riverbed to reduce the buildup of sediment in the berth by not allowing suspended sediment to settle.

The current rated capacity of the water treatment plant is 6.5 MGD based on the capacity of the filters. Based on demand projections by APWD, the treatment plant can provide a sufficient quantity of water to meet the maximum day demand through 2040 (City of Aberdeen 2021).

5.10 Wastewater

The APWD collects and treats wastewater in the On-Site and Off-Site Project Areas; an APWD gravity service line conveys wastewater in the On-Site Project Area. The wastewater service area includes the City of Aberdeen (approximately 3,770 acres) and a total of 4,370 acres for areas outside Aberdeen, including the City of Cosmopolis and the Stafford Creek Correctional Center. The APWD wastewater system includes an estimated 82 miles of sanitary sewer (including a 24-inch force main under the Chehalis River) and 6,100 connections; its wastewater treatment plant (WWTP) and outfall into the Chehalis River, located immediately east of the On-Site Project Area, serves a population of approximately 20,500. The system includes a WWTP influent pump station and 16 additional pump stations owned, operated, and maintained by the APWD throughout the collection system. Additional sewage pump stations operated and maintained by the City serve the Stafford Creek Correctional Center and Lemay Landfill. The WWTP provides secondary treatment and has a maximum-month design capacity of 9.9 MGD and a peak hour design capacity of 18 MGD (City of Aberdeen 2020). In 2019, the Aberdeen City Council passed an ordinance with a schedule of rate increases to pay for the capital improvements to ensure the WWTP can accommodate flows and loadings through 2038 (City of Aberdeen 2020).

The City of Hoquiam operates a 4.0-MGD secondary WWTP, located approximately 2.8 miles east of the On-Site Project Area. It is currently rated at 9.9 MGD maximum-month capacity and discharges to Grays Harbor (City of Aberdeen 2020).

Figure 4 presents the network of sanitary sewer lines conveying wastewater in the On-Site Project Area, reflective of available data.

5.11 Stormwater

The Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Water Resources Technical Study (Anchor QEA 2023b) indicates that the entirety of the On-Site Project Area is currently developed and consists largely of impervious surfaces. Stormwater in the On-Site Project Area mainly discharges via the Port's outfalls to the Chehalis River; however, certain areas are captured separately and may also be routed to existing municipal systems. Separated drainage basins exist at Terminals 1 and 2 related to existing tenant use and would not be affected by the Proposed Project.

Within the On-Site Project Area at Terminal 4, stormwater is separated into two main basins with the Terminal 4B area draining to outfalls located to the west of the Terminal 4 dock. Stormwater at the Terminal 4A cargo yard is handled through an existing sand and gravel permit, involving detention at

the existing ponds prior to discharge via separate outfalls to the east of the Terminal 4 dock. Stormwater at the Terminal 4 dock currently drains to Grays Harbor.

As described in a 2021 site development plan and feasibility analysis (MFA 2021), under existing conditions, stormwater at the casting basin is collected into a sump and then conveyed by pumps to the four northern stormwater ponds. The water is then treated in the stormwater ponds and discharged to a ditch on the west side of the casting basin. This ditch then discharges water into a stormwater sediment treatment cell in the southwest corner of the casting basin. From there, stormwater is discharged into the Chehalis River.

On the eastern side of the casting basin, there are several biofiltration swales that collect runoff and discharge to the ponds in the southeastern corner of the casting basin. To the east and west of the parking area there are conveyance ditches. The ditches on the western side of the parking area convey stormwater to the same pond in the southeastern corner of the casting basin. The ditch on the eastern side of the parking area discharges into the Chehalis River (Anchor QEA 2023a).

Stormwater facilities in area are managed by the APWD Stormwater Department, which maintains 21.2 miles of open ditches, approximately 8 miles of culverts, 5 miles of flood dikes, and 17 stormwater pump stations spread out across the city of Aberdeen (City of Aberdeen 2023d). Nearby Hoquiam has its own system of drainage pipes, open channels, and ditches to convey water to pump stations that lift stormwater above levees and floodwalls into the Hoquiam River and the Grays Harbor Estuary. The city also depends on natural areas and wetlands for retaining and releasing stormwater (City of Hoquiam 2009).

The network of pipelines, ditches, ponds, swales, and outfalls conveying stormwater in the On-Site Project Area is shown in Figure 4.

5.12 Solid Waste Disposal

Solid waste collection and disposal services in the On-Site and Off-Site Project Areas are provided by LeMay Grays Harbor and Hometown Sanitation. LeMay Grays Harbor provides residential and commercial collections, transfer, and recycling services throughout Grays Harbor County, with the exception of refuse service in City of Hoquiam, which is provided by Hometown Sanitation. The primary disposal site for solid waste collected in the county is Grays Harbor County Transfer Station, constructed in 2019, which is approximately 8 miles east of the On-Site Project Area. The Stafford Creek Limited Purpose Landfill; Cosmo Specialty Fibers, Inc.; and several other small facilities serve as authorized solid waste handling sites for the disposal of specialized wastes, such as inert materials, sludge material dredged from its wastewater treatment lagoons, and other solid waste (LeMay 2023).

Municipal solid waste from the Grays Harbor County Transfer Station is trucked to the Wasco County Landfill near The Dalles, Oregon, or other treatment or permanent disposal facilities. The Wasco

County Landfill is a regional landfill; it is 337 acres in area, with 213 acres designated for active landfilling. It accepts wastes from other counties in Washington and Oregon and is projected to achieve capacity around 2085 (Grays Harbor County 2021).

As of 2020, several facilities within the On-Site Project Area are designated as Large Quantity Generators (i.e., generates over 2,200 pounds of hazardous wastes each month and/or accumulates more than 2,200 pounds at any one time), Medium Quantity Generators (i.e., generates between 220 pounds and 2,200 pounds of hazardous wastes each month and/or accumulates less than 2,200 pounds at any one time), and Small Quantity Generators (i.e., generates up to 220 pounds of hazardous wastes each month and/or accumulates less than 2,200 pounds at any one time). These include Westway Terminal Co LLC (Large Quantity Generator), Home Depot 8964 (Medium Quantity Generator), and the Port of Grays Harbor (Small Quantity Generator) (Grays Harbor County 2021).

The four primary transportation, storage, disposal, and recycling companies handling hazardous waste in Grays Harbor County are Emerald Services Incorporated, Stericycle of Washington, Systech Environmental Corporation, Safety Kleen Systems, Inc. (Grays Harbor County 2021).

5.13 Electricity and Natural Gas

Electrical power in the On-Site and Off-Site Project Areas is provided by the Grays Harbor Public Utility District (GHPUD). The GHPUD service area includes all of Grays Harbor County and small, adjacent areas of Jefferson, Thurston, Lewis, and Pacific counties.

GHPUD obtains the majority of its electricity from hydroelectric power, supplemented by a mix of wind, gas, biomass, and nuclear generation resources. Assuming critical water (worst-case streamflow conditions based on historical data¹), GHPUD currently purchases enough energy to meet 90% of its load requirements from the Bonneville Power Administration (BPA), which markets energy from 29 federal hydroelectric projects and a nuclear project (GHPUD 2020). A BPA transmission line runs though Grays Harbor County, primarily through the Chehalis River corridor. The line crosses the Wishkah River immediately north of Aberdeen (BPA 2020).

A biomass generation project and two wind generation projects provide enough annual energy to serve an additional 15% of GHPUD's load requirements so that GHPUD has surplus energy when critical water is assumed. Under average water, GHPUD purchases more than 100% of its load requirements through BPA and has even more surplus energy (GHPUD 2020)

¹ "Critical water" is a sequence of stream flows under which the regional hydro system would produce 50-year historical minimum amounts of energy, given today's generating facilities and constraints; i.e., "worst-case" conditions (Northwest Public Power Association 2023).

No load growth is anticipated through at least 2040, due to a combination of continued conservation measures and no new expected large customer additions. GHPUD is expected to supply enough energy so that demand is balanced by supply on an average annual basis through 2040 (GHPUD 2020).

The 2021 site development plan and feasibility analysis (MFA 2021) indicates that significant underground and overhead electrical infrastructure is present across the Proposed Project site, including 480-volt, three-phase power, and 15-kilovolt electric power lines.

Cascade Natural Gas Corporation provides natural gas in the On-Site and Off-Site Project Areas, as well as to residential, commercial, and industrial users throughout Grays Harbor County and many other parts of Washington and Oregon. Interstate pipelines transmit Cascade's natural gas from production areas in the Rocky Mountains and western Canada (Cascade Natural Gas 2023).

5.14 Telecommunications

The GHPUD also provides telecommunication utility services to residential, commercial, and industrial customers in the On-Site and Off-Site Project Areas. Internet, cable TV, and phone service providers that use GHPUD's network include Coast Communication, Northwest Open Access Network, Rainier Connect, Silver Star Telecom, Star Touch, DSS Digital Services, Wave Broadband, and Westside Technologies. Telecommunications lines in the On-Site Project Area are primarily located underground (GHPUD 2023).

6 Environmental Consequences

This section describes the environmental consequences of the No Action Alternative and the Proposed Project.

6.1 Assumptions

This analysis is based on the description of the design, construction, and operation of the Proposed Project as described in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a). In addition, it is assumed that appropriate coordination would occur between the Port, AGP, and the providers of the public services and utilities analyzed here during the Proposed Project development process, and that all relevant laws, permit requirements, and established guidelines would be followed.

6.2 Approach

This section describes the approach to the impact analysis, including the types of impacts considered.

6.2.1 Approach to Analysis

This study evaluated the potential direct, indirect, and cumulative impacts of the alternatives that would be different from existing conditions. Existing conditions include those present at the time the analysis was completed in 2023. When informative, the study also includes a comparison of the operational impacts of the Proposed Project to the No Action Alternative. This was done to provide additional information about whether the project impacts may be different later in the analysis period.

Cumulative impacts are caused by the incremental impact of the alternatives when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor, but collectively significant actions, which take place over time (40 Code of Federal Regulations 1508.7). The list of cumulative projects is presented in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a). The following approach was developed based on guidance from the Council of Environmental Quality (CEQ 1997):

- Determine the cumulative impacts study area for each environmental resource. The study area used to evaluate cumulative impacts is the same as described in Section 5.1.
- Assess the existing condition of each resource as it has been affected by past actions. This is based on information provided in the corresponding Affected Environment section of this study, which includes the effects of past actions.
- Evaluate the cumulative impacts of all past, present, and reasonably foreseeable future actions on each resource in the study area, which is described in Section 6.

• Assess how Alternative 1 would contribute to cumulative impacts, which is also described in Section 6.

6.2.2 Impact Terminology

Direct impacts are those that would occur as the result of and at the same time and place as the activities proposed by the Port and AGP. Direct impacts would only occur in the On-Site Project Area. Indirect impacts would occur later in time or farther in distance from the immediate project location but would be attributable to the Proposed Project. Indirect impacts also include those that would occur as the result of operating the project, such as traffic to and from the Project Area. These impacts could be temporary or permanent.

Project impacts can be characterized by duration. Permanent impacts would affect the resource to such a degree that they would not return to their preconstruction state during the analysis period. Temporary impacts may be short-term or long-term. Short-term impacts were assumed to last for less than 2 years. Long-term temporary impacts would affect functions that will eventually be restored or recover over time, but not within 1 year or more after the impact ceases.

The magnitude of impacts is also described in terms of low, medium, and high impacts. Table 2 provides guidance for how the impact levels were assessed. The level of impacts was assessed assuming that applicable regulations and permits and approvals listed in Section 3 would be adhered to and obtained. If needed, the impact analysis also identifies where mitigation would be required to reduce the impact to acceptable levels. Mitigation is described in Section 7.

In the case of this study, a project impact to public services is defined as a need to for significant additional resources to maintain service levels as a result of the project. A project impact to utilities is defined as a need to physically relocate or modify utility infrastructure as a result of the project. Impact thresholds are further defined in Table 2. Impact triggers are further described in Section 3.

Table 2Impact Thresholds for Public Services and Utilities

Impact Indicator	Determining Degree of Impact
	No/Negligible Impact: An Alternative would not result in any noticeable impacts on public services or utilities.
Public Service and Utility	Low: An Alternative would result in a temporary disruption of service or minor increases in demand that would not exceed supply.
Quality	Medium: An Alternative would result in a permanent, localized disruption of service or more moderate increases in demand that would not exceed supply.
	High: An Alternative would result in a permanent, widespread disruption of service and/or increases in demand that would exceed supply.
	No/Negligible Impact: An Alternative would not result in construction of permanent new, replacement, or relocated public service or utility infrastructure.
	Low: An Alternative would result in the relocation or replacement of minor public services or utility infrastructure and would not result in any disruption of service.
Public Service and Utility Infrastructure	Medium: An Alternative would result in the relocation or replacement of localized public services or utility infrastructure, and/or would have the potential for short-term disruption of service.
	High: An Alternative would result in the relocation or replacement of substantial public services or utility infrastructure, and/or would have the potential for prolonged disruption of service.

6.3 Methods

The impact analysis considered the extent to which construction and operation of the alternatives would affect the provision of existing public services and utilities to residential, commercial, industrial, and government properties and their associated populations in the vicinity of the On-Site and/or Off-Site Project Areas. The analysis considers the effects of constructing the complete project; however, the Port and AGP may construct project elements in phases. Any major differences in the Proposed Project would be re-evaluated as appropriate.

For public services, the impact analysis consisted of a qualitative assessment focused on the following questions:

- Will detours or increased traffic during Proposed Project construction prevent the use of critical access routes such that service is detrimentally delayed?
- Will the operation of the Proposed Project result in detrimental delays to response times for emergency response teams (law enforcement, fire, and emergency medical)?
- Will any facilities need to relocate, or will transportation routes need to be shifted to new routes?
- Will induced growth, as determined by the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Land Use Technical Study* (Anchor QEA 2023c), exceed growth planned for by these services? And, if so, will the induced growth require additional services?

For utilities, this involved a qualitative assessment focused on the following questions:

- Will project construction result in temporary disruptions of service?
- Will utility infrastructure need to be relocated or modified to facilitate construction of the project?
- Will utility infrastructure need to be relocated or modified to facilitate operation of the project?
- Will induced growth, as determined by the Land Use Technical Study (Anchor QEA 2023c), exceed growth planned for by these utilities? And, if so, will the induced growth require relocation or modification of utility infrastructure?

The analysis presented in this study is qualitative. As previously mentioned, information about the public services and utilities in the On-Site or Off-Site Project Areas was derived from service provider websites, published reports (including previous environmental documents related to the Proposed Project site and local plans, publicly available data layers, project construction and operation plans, and Google Earth).

6.4 No Action Alternative

Under the No Action Alternative, it is assumed that Port operations would continue similar to existing conditions. Although cumulative projects described in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a) could be implemented, the analysis assumes that on-site and off-site operations would not change substantially from existing conditions.

Operation of the No Action Alternative would continue existing land uses and would not be expected to induce new development in the surrounding area or introduce a new population that could place demands on public service providers. The potential impacts on specific public services and utilities anticipated to result from the No Action Alternative are described in Section 6.4.1 through Section 6.4.12, below.

6.4.1 Police Services

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. The On-Site Project Area currently has multiple access routes in the event of an emergency, including the possibility of breaking a train at surface crossings to allow the passage of vehicles as needed, as described in the Affected Environment section. The No Action Alternative would result in no impacts on police services.

6.4.2 Fire Protection and Emergency Medical Services

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. The On-Site Project Area currently has multiple access routes in the event of an emergency, including the possibility of breaking a train at surface crossings to allow the passage of fire and emergency vehicles as needed, as described in the Affected Environment section. The No Action Alternative would result in no impacts on fire protection or emergency medical services.

6.4.3 Schools

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. Access and linkages to schools would remain similar to current conditions. The No Action Alternative would result in no impacts on local schools.

6.4.4 Libraries, Parks, and Other Recreational Facilities

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. Access and linkages to libraries and other recreational facilities would remain similar to current conditions. The No Action Alternative would result in no impacts on libraries, parks, or other recreational facilities.

6.4.5 U.S. Postal Service

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. Access and linkages to the post office and to the community for postal delivery services would remain similar to current conditions. The No Action Alternative would result in no impacts on postal services.

6.4.6 Cemeteries

No impacts are anticipated under the No Action Alternative because no project-related construction would occur, and on-site and off-site operations would not be expected to change from existing conditions. Access and linkages to local cemeteries would remain similar to current conditions. The No Action Alternative would result in no impacts on local cemeteries.

6.4.7 Water Supply

Negligible impacts on water supply systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to

existing conditions. Some low levels of new demand for potable water from the project vicinity could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but this would not be expected to exceed the capacity of local water supplies. Existing water supply infrastructure would remain as is.

6.4.8 Wastewater

Negligible impacts on wastewater conveyance and treatment systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to existing conditions. Some new sanitary sewage flows in the Project Area could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but the 9.9-MGD Aberdeen WWTP and the 4.0-MGD Hoquiam WWTP would be expected to have sufficient capacity to treat additional wastewater flows. Existing wastewater infrastructure would remain as is.

6.4.9 Stormwater

Negligible impacts on stormwater conveyance and treatment systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to existing conditions. Some new stormwater flows in the Project Area could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but the current stormwater infrastructure would be expected to be adequate to handle these flows.

6.4.10 Solid Waste Disposal

Negligible impacts on solid waste collection and disposal systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to existing conditions. Some low levels of new demand for solid waste disposal services in the project vicinity could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but this would not be expected to exceed the capacity of solid waste disposal services.

6.4.11 Electricity and Natural Gas

Negligible impacts on electricity and natural gas transmission systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to existing conditions. Some low levels of new demand for natural gas and/or electricity from the project vicinity could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but this would not be expected to exceed the capacity of energy supplies. Existing natural gas and electrical energy supply infrastructure would remain as is.

6.4.12 Telecommunications

Negligible impacts on telecommunications systems are anticipated under the No Action Alternative. Under the No Action Alternative, the Port would be expected to largely continue operations similar to existing conditions. Some low levels of new demand for telecommunications services from the project vicinity could result from any proposed developments that are anticipated to occur whether or not the Proposed Project proceeds, but this would not be expected to exceed the capacity of telecommunications services providers. Existing telecommunications services infrastructure would remain as is.

6.5 Proposed Project

This section describes the direct and indirect impacts that would occur as the result of construction and operations of the Proposed Project.

6.5.1 Construction

For public services, the qualitative analysis of potential construction impacts focuses on whether Proposed Project construction would introduce detours or increased traffic that would prevent the use of critical access routes such that service is detrimentally delayed. The locations of public services in relationship to the Proposed Project are presented in Figure 5. For utilities, the qualitative analysis of potential construction impacts focuses on whether Proposed Project construction would require relocation or modification of existing utility infrastructure or result in temporary disruptions to utility services during construction. The locations of known existing utilities in relation to Proposed Project infrastructure are shown in Figure 6.

Construction of the Proposed Project is estimated to last approximately 18 months, as described in Section 5 of the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a). Most direct construction impacts would occur in previously developed areas and would be accompanied by standard construction best management practices to minimize the potential for impacts.

As demonstrated in the following subsections, Proposed Project construction is anticipated to result in negligible to low impacts on public services and utilities.

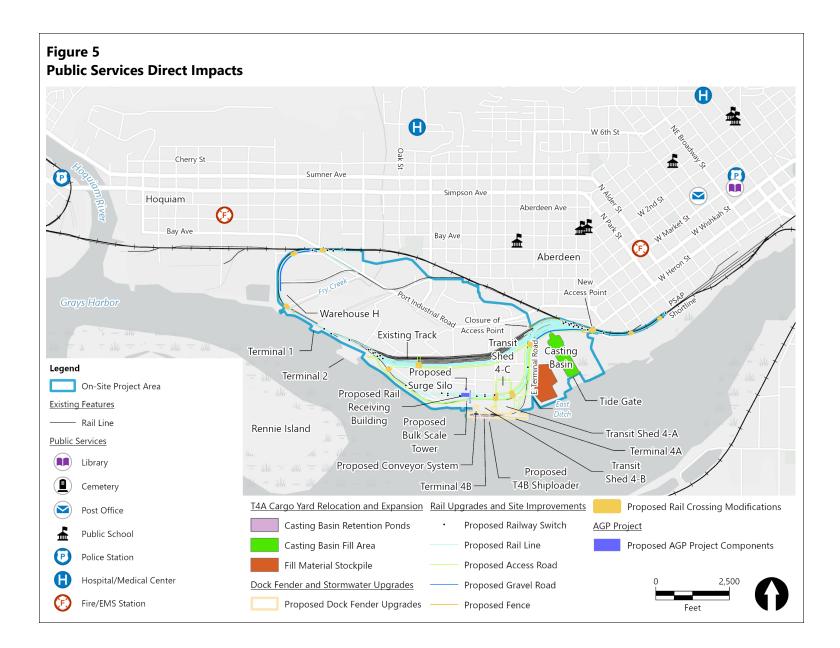


Figure 6 **Utilities Direct Impacts** Warehouse H Grays Harbor Casting 900.0 Existing Track Basin Legend Terminal 1 Transit 0 Transit On-Site Project Area Shed 4-C roposed Shed 4-Existing Features Terminal 2 Utilities Infrastructure **Proposed Rail** Tide Gate Receiving Major Water Pipe Transit Building Shed 4-A Wastewater Pipe Terminal **Proposed Bulk** Electric Line Rennie Island 4B Terminal Scale Tower Power Line 4A Proposed Natural Gas Pipe Proposed Conveyor System T4B Shiploader Telecommunication Line Stormwater Outfall T4A Cargo Yard Relocation and Expansion Rail Upgrades and Site Improvements Proposed Rail Crossing Modifications • Telecommunication Pole Proposed Railway Switch Casting Basin Retention Ponds AGP Project Fire Hydrant Proposed AGP Project Components Casting Basin Fill Area Proposed Rail Line Power Pole Fill Material Stockpile Proposed Access Road • Sanitary Sewer Dock Fender and Stormwater Upgrades Proposed Gravel Road Stormwater Drain • Stormwater Outfall Proposed Dock Fender Upgrades Proposed Fence Fee

6.5.1.1 Police Services

Low impacts on police services could occur during construction of the Proposed Project. The number and type of calls for police services in the On-Site Project Area and vicinity would not be expected to change as a result of the Proposed Project, and site security would be maintained. However, the Proposed Project would relocate the Port entry access point on the northeastern border of the site and construction could possibly result in a temporary, short-term increase in response times for emergency police services in the On-Site Project Area if access were blocked during the site access relocation process or in other work zones. Mitigation to avoid or reduce impacts on police response times is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on police services during construction.

6.5.1.2 Fire Protection and Emergency Medical Services

Low impacts on fire and emergency medical services could occur during construction of the Proposed Project.

Demolition and construction of buildings would be done in compliance with the International Building Code and Fire Code regulations, but site preparation and construction of the Proposed Project improvements could increase the risk of a medical emergency or accidental fire. Therefore, service calls related to site construction and to respond to potential construction-related injuries could increase slightly. This minor increase in demand would not exceed the capacity of the local fire and emergency services infrastructure described in Section 5.

It is assumed that on-site best management practices for security, such as fencing and securing areas where equipment is stored, would be implemented to reduce the potential for construction-related incidents. However, construction could possibly result in a temporary, short-term increase in response times for fire and emergency medical services in the On-Site Project Area if access were blocked during the site access relocation process or in other work zones. Mitigation to avoid or reduce impacts on fire and emergency medical response times is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on fire and emergency medical services during construction.

6.5.1.3 Schools

Low impacts on local schools (especially A.J. West Elementary, 0.2 mile north of the On-Site Project Area) could occur during Proposed Project construction if construction activities were to interrupt traffic flows in the vicinity of the On-Site Project Area. Mitigation to avoid or reduce impacts on schools is proposed in Section 7 of this technical study. With implementation of mitigation measures, vehicular access, linkages, and travel times to schools would remain similar to current conditions, and the Proposed Project would result in negligible impacts on schools during construction.

6.5.1.4 Libraries, Parks, and Other Recreational Facilities

Low impacts on libraries, parks, and other recreational facilities could occur during Proposed Project construction if construction activities were to interrupt traffic flows in the vicinity of the On-Site Project Area. This would especially apply to West End Playfield, immediately adjacent to the On-Site Project Area. Construction would also result in temporary disturbances that may affect the experience of users of and visitors to the 28th Street Boat Launch and Viewing Tower; however, user access would not be affected. Mitigation to avoid or reduce impacts on libraries, parks, and other recreational facilities is proposed in Section 7 of this technical study. With implementation of mitigation measures, vehicular access, linkages, and travel times to these facilities would remain similar to current conditions, and the Proposed Project would result in negligible impacts on schools during construction would be negligible.

6.5.1.5 U.S. Postal Service

Low impacts on postal services could occur during Proposed Project construction if construction activities were to interrupt traffic flows in the vicinity of the On-Site Project Area. Mitigation to avoid or reduce impacts on postal services is proposed in Section 7 of this technical study. With implementation of mitigation measures, vehicular access, linkages, and travel times to and from the post office for postal services would remain similar to current conditions, and the Proposed Project would result in negligible impacts on postal services during construction.

6.5.1.6 Cemeteries

No impacts on cemeteries are anticipated from Proposed Project construction because existing cemeteries are located over 2 miles from the On-Site Project Area.

6.5.1.7 Water Supply

No impacts on water supply capacity are anticipated from construction of the Proposed Project. Construction of the Proposed Project would be confined to the On-Site Project Area and would require only minimal amounts of water. The *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a) indicates that the largest water consumption would be for concrete materials provided from off-site material suppliers. Water would also be used for cleaning concrete trucks prior to leaving the site. This water would be contained and dealt with in accordance with an approved construction stormwater pollution prevention plan (SWPPP). Water used for dust control and other construction activities would be provided through APWD's existing industrial water system. The quantities of water needed for Proposed Project construction would be minimal relative to APWD's current water supply capacity.

Low impacts on water supply infrastructure could occur from construction of the Proposed Project. Proposed rail lines, a proposed access road and gravel road, and a proposed fence in some parts of the On-Site Project Area would intersect existing APWD water lines and could potentially interfere with existing fire hydrants (refer to Figure 6). However, the project does not propose substantial alteration of the vertical profile of the site in these locations. Mitigation to avoid or reduce impacts on minor water supply infrastructure is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on water supply infrastructure during construction.

6.5.1.8 Wastewater

No impacts on wastewater conveyance or treatment capacity are anticipated from construction of the Proposed Project. Construction would be confined to the On-Site Project Area and would produce only minimal amounts of wastewater, primarily associated with cleaning concrete trucks prior to leaving the site, dust control, and other construction activities. This water would be contained and dealt with in accordance with an approved construction SWPPP. The quantities of wastewater produced during Proposed Project construction would be minimal relative to APWD's current wastewater conveyance and treatment capacity.

Low impacts on minor wastewater conveyance infrastructure could occur from construction of the Proposed Project. Proposed rail lines just west of the casting basin area and just east of the Home Depot site would intersect an existing APWD gravity mains collector line (refer to Figure 6). Similarly, proposed rail lines, a proposed access road and gravel road, and a proposed fence in the northeast corner of the On-Site Project Area, just north of the casting basin, would intersect an existing APWD gravity mains interceptor line. However, the project does not propose substantial alteration of the vertical profile of the site in these locations.

Mitigation to avoid or reduce impacts on wastewater conveyance infrastructure is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on wastewater conveyance infrastructure during construction.

6.5.1.9 Stormwater

Negligible impacts on minor stormwater conveyance infrastructure could occur from construction of the Proposed Project because no alterations to surface water flows would occur for construction purposes. As detailed in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a), Proposed Project construction would plan to use the existing stormwater infrastructure, including existing infiltration facilities/stormwater management ponds on the south and east sides of the facility, to the maximum extent practical.

The construction would reconfigure drainage infrastructure in areas where existing infrastructure would need to be relocated based on other proposed program construction (i.e., rail lines being built over the existing north ponds; refer to Figure 6). A small swale that runs along the north side of the casting basin to Heron Street and a small ditch along the would require the development of new

drainage infrastructure to convey that water to the West Ditch or to existing outfalls to the Chehalis River (refer to Figure 6).

The existing outfalls would be maintained to accommodate all on-site stormwater, which would infiltrate or drain to either the East or West Ditch or to Grays Harbor to the south. The existing north stormwater management ponds (to be demolished) currently drain into the West Ditch. Stormwater management requirements would be evaluated based on City of Aberdeen requirements. If additional stormwater management ponds were required, it is anticipated that they would discharge to existing outfalls to Grays Harbor or to the West Ditch. Once construction is complete, it is anticipated that stormwater management for roll-on/roll-off cargo storage operations would be covered under the City of Aberdeen Municipal Stormwater NPDES Permit (refer to Figure 6).

Note that Proposed Project impacts to surface water quality in the stormwater system are addressed in the Water Resources Technical Study (Anchor QEA 2023b).

6.5.1.10 Solid Waste Disposal

Low impacts on the solid waste collection and disposal system could occur from construction of the Proposed Project. Construction would temporarily increase solid waste and hazardous waste for collection and disposal. These services would not exceed the utility service provider capability. In addition, brief disruptions of service would occur if access to the On-Site Project Area is disrupted during construction.

Waste typically generated or encountered during construction activities could consist of contaminated soils, contaminated sediments, contaminated groundwater generated from excavation, drilling, and dewatering activities, and/or existing on-site building materials. Construction of the Proposed Project could encounter hazardous materials in the Project Area that could pose risks to human health and the environment. The potential for the Proposed Project to encounter hazardous materials is addressed in the Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Hazardous Materials and Waste Technical Study (Moffat & Nichol 2023).

Mitigation to avoid or reduce impacts on the solid waste collection and disposal system is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on the solid waste collection and disposal system during construction.

6.5.1.11 Electricity and Natural Gas

Negligible impacts on electricity and natural gas capacity are anticipated from construction of the Proposed Project. In the On-Site Project Area, construction-related energy uses would include the use of electricity, diesel fuel, gasoline, oil, and natural gas. Construction lighting, power tools, and other equipment would consume electricity from GHPUD. It is assumed that natural gas would be

used for minor purposes, such as heating water for sanitary uses, but not for industrial uses. Heavy machinery used during construction would increase fuel use. In the On-Site Project Area, the transport of employees and materials to the Project Area during construction would result in a temporary increase in fuel consumption. The increased demand for gasoline, oil, diesel fuel, electricity, and natural gas during construction would be negligible compared to the current regional demand for these fuels and is anticipated to be met by the existing local and regional supply.

Low impacts on electricity and natural gas transmission infrastructure could occur from construction of the Proposed Project. Proposed rail lines, access roads, the surge silo, and other project features in several parts of the On-Site Project Area would intersect existing aboveground and underground electrical power lines and underground natural gas lines and could potentially interfere with existing power poles or other utility structures (refer to Figure 6). However, the project does not propose substantial alteration of the vertical profile of the site in these locations.

Mitigation to avoid or reduce impacts electricity and natural gas conveyance infrastructure is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in negligible impacts on electricity and natural gas conveyance infrastructure during construction.

6.5.1.12 Telecommunications

Negligible impacts on telecommunications capacity are anticipated from construction of the Proposed Project. Any increased demand for telecommunications services during construction would be negligible compared to the current regional demand for these services and could be met by the existing local and regional supply.

Low impacts on telecommunications transmission infrastructure could occur from construction of the Proposed Project. Proposed rail lines, access roads, and other project features in several parts of the On-Site Project Area would intersect existing underground telecommunications infrastructure (refer to Figure 6). However, the project does not propose substantial alteration of the vertical profile of the site in these locations.

Mitigation to avoid or reduce impacts on telecommunications transmission infrastructure is proposed in Section 7 of this technical study. With implementation of mitigation measures, the Proposed Project would result in Negligible impacts on telecommunications transmission infrastructure during construction.

6.5.2 Operation

For public services, the qualitative analysis of potential operational impacts focuses on whether Proposed Project operation would result in detrimental delays to response times for emergency response services, require the relocation of service facilities or new transportation routes, or induce growth that would require additional services. For utilities, the qualitative analysis of potential operation impacts focuses on whether Proposed Project operation would require relocation or modification of utility infrastructure or induce growth that would require relocation or modification of utility infrastructure.

As demonstrated in the following subsections, operation of the Proposed Project is not anticipated to result in substantial impacts on public services and utilities.

6.5.2.1 Police Services

Negligible impacts on police services would be expected to occur as a result of operation of the Proposed Project.

The Proposed Project would not substantially induce population growth that would increase demand for police services. The number and type of calls for police services in the On-Site and Off-Site Project Areas and vicinity would not be expected to change as a result of the Proposed Project.

Although the Proposed Project would relocate the Port entry access point on the northeastern border of the site (refer to Figure 5), once constructed, this change would not be expected to noticeably increase emergency response times over current levels.

In addition, as described in the Traffic and Safety Technical Study (Fehr & Peers 2023), increased train traffic resulting from the Proposed Project would result in vehicle delay increases because more trains would operate on the PSAP rail line. The addition of Proposed Project trains would affect police response times if an emergency vehicle was blocked at a grade crossing occupied by a Proposed Project train. The potential for the Proposed Project to affect police response would also depend on whether the dispatched police vehicle would need to cross the PSAP rail line and the availability of alternative routes if a train occupies the crossing at the time of the call.

As noted in the Project Description Technical Report (Anchor QEA 2023), this environmental analysis assumes the baseline for comparison of vessel traffic is 131 total vessel calls to the Port of Grays Harbor per year, including 100 ship round trips and 31 barge round trips. The Proposed Project is anticipated to increase total vessel round trips to the Port per year to 161, including ship and barge trips. Records since 1989 show the number of annual ship calls reached highs of 214 annual ship calls and 179 annual barge calls, indicating that increases in vessel traffic following Proposed Project improvements would not be expected to exceed the USCG's capacity to provide on-water police services. The operation of the Proposed Project would not be expected to result in detrimental delays to response times for on-the-water police activities.

6.5.2.2 Fire Protection and Emergency Medical Services

Negligible impacts on fire protection and emergency medical services would be expected to occur as a result of operation of the Proposed Project.

The Proposed Project would not induce population growth that would noticeably increase demand for fire protection and emergency medical services. The number and type of calls for such services in the On-Site and Off-Site Project Areas and vicinity would not be expected to change as a result of Proposed Project operation. Adequate fire flow for the Proposed Project would be provided according to code. Existing utility systems (including water systems) would be installed and improved, as needed, to meet water capacity demands and code requirements so that the AFD would have the on-site infrastructure needed to respond to fire emergencies. Note that this analysis does not assess risks of fires, explosions, or HAZMAT emergencies; these are addressed in the Proposed Project Hazardous Materials and Waste Technical Study (Moffat & Nichol 2023).

Although the Proposed Project would relocate the Port entry access point on the northeastern border of the site (refer to Figure 5), this change would not be expected to substantially increase emergency response times over current levels. No fire, hospital, or emergency medical facilities would need to relocate as a result of the Proposed Project and transportation routes would not need to change.

Additionally, as described in the Traffic and Safety Technical Study (Fehr & Peers 2023), increased train traffic resulting from the Proposed Project would result in vehicle delay increases because more trains would operate on the PSAP rail line. The addition of Proposed Project trains would affect emergency response times if an emergency vehicle was blocked at a grade crossing occupied by a Proposed Project train. The potential for the Proposed Project to affect emergency response would also depend on whether the dispatched emergency vehicle would need to cross the PSAP rail line and the availability of alternative routes if a train occupies the crossing at the time of the call.

As noted for police services in Section 6.5.2.1, this environmental analysis assumes the baseline for comparison of vessel traffic is 131 total vessel calls to the Port of Grays Harbor per year, including 100 ship round trips and 31 barge round trips. The Proposed Project is anticipated to increase total vessel calls to the Port per year to 161, including ship and barge trips. Records since 1989 show the number of annual ship calls reached highs of 214 annual ship calls and 179 annual barge calls, indicating that increases in vessel traffic following Proposed Project improvements would not be expected to result in detrimental delays to response times for on-water emergency response teams.

6.5.2.3 Schools

No impacts on schools would be expected to occur as a result of operation of the Proposed Project. The Proposed Project would not substantially induce population growth that would increase traffic associated with local schools. In addition, access, linkages, and travel times to schools would remain similar to current conditions. No school facilities would need to relocate as a result of the Proposed Project and transportation routes would not need to change.

6.5.2.4 Libraries, Parks, and Other Recreational Facilities

Low impacts on libraries, parks, and other recreational facilities would be expected to occur as a result of operation of the Proposed Project. The Proposed Project would not substantially induce population growth that would increase traffic associated with local libraries, parks, and other recreational facilities. In addition, access, linkages, and travel times to libraries, parks, and other recreational facilities would remain similar to current conditions. No such facilities would need to relocate as a result of the Proposed Project and transportation routes would not need to change. The increase in train traffic near the 28th Street Boat Launch and Viewing Tower during operations may result in disturbances to users of these facilities; however, it would not affect their ability to access the facilities or substantially change their recreational experience.

6.5.2.5 U.S. Postal Service

No impacts on postal services would be expected to occur as a result of operation of the Proposed Project. The Proposed Project would not substantially induce population growth that would increase traffic associated with U.S. Postal Service activities. In addition, access, linkages, and travel times to and from the post office for postal services would remain similar to current conditions. No post office facilities would need to relocate as a result of the Proposed Project and transportation routes would not need to change.

6.5.2.6 Cemeteries

No impacts on cemeteries would be expected to occur as a result of operation of the Proposed Project. The Proposed Project would not substantially induce population growth that would increase traffic associated with local cemeteries. In addition, access, linkages, and travel times to local cemeteries would remain similar to current conditions. No cemetery facilities would need to relocate as a result of the Proposed Project and transportation routes would not need to change.

6.5.2.7 Water Supply

Negligible impacts on water supply systems would be expected to occur as a result of operation of the Proposed Project. Operation of the Proposed Project could create low levels of new demand for potable water in the project vicinity for domestic uses such as drinking, sinks, and toilets, but this demand would not exceed the capacity of local water supplies.

6.5.2.8 Wastewater

Negligible impacts on wastewater conveyance and treatment systems would be expected to occur as a result of operation of the Proposed Project. Operation of the Proposed Project could result in new sanitary sewage flows from the On-Site Project Area, but these would not be substantial, and the 9.9-MGD Aberdeen WWTP and the 4.0-MGD Hoquiam WWTP have sufficient capacity to treat additional wastewater flows.

6.5.2.9 Stormwater

Negligible impacts on stormwater conveyance systems would be expected to occur as a result of operation of the Proposed Project. As noted in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a), the upgraded stormwater system should not impact operational activities related to the wharf except to assist the Port terminal operators' ability to achieve ongoing compliance with Washington State water quality requirements. Once construction is complete, it is anticipated that stormwater management for roll-on/roll-off cargo storage operations would be covered under the City of Aberdeen Municipal Stormwater NPDES Permit. More information on the stormwater system and potential stormwater-related impacts is provided in the *Port of Grays Harbor Terminal 4 Expansion & Redevelopment Water Resources Technical Study* (Anchor QEA 2023b).

6.5.2.10 Solid Waste Disposal

Negligible impacts on waste disposal collection and treatment systems would be expected to occur as a result of operation of the Proposed Project. Routine operation of the Proposed Project would increase the amount of solid waste generated at the project site to a limited degree and could generate hazardous waste used in terminal and rail operations. These hazardous materials would require safe disposal and would be hauled and disposed of according to all regulations, permits, and guidelines.

6.5.2.11 Electricity and Natural Gas

Negligible impacts electricity and natural gas supply and transmission systems would be expected to occur as a result of operation of the Proposed Project. The Proposed Project operations would consume electricity and natural gas. Electricity would be used to heat buildings, light indoor and outdoor areas, and power project-related infrastructure, including the ship loading facility. In addition, gasoline, propane, and diesel would be used to power vehicles and equipment used for standard operations and routine maintenance. Although operation of the Proposed Project could create new demand for electrical power, natural gas, and other fuels, this demand would be minor compared to the current regional demand and would not exceed the capacity of local energy providers.

6.5.2.12 Telecommunications

Negligible impacts on telecommunications systems would be expected to occur as a result of operation of the Proposed Project. Operation of the Proposed Project could create low levels of new demand for telecommunications services, but this demand would not exceed the capacity of local telecommunications providers.

6.6 Cumulative Impacts

Cumulative impacts are effects that would result from the incremental addition of the Proposed Project to the impacts from past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor, but collectively significant, actions that take place over time (40 CFR 1508.7) and are evaluated as described in Section 6.2.1.

The geographic study area for cumulative impacts to public services and utilities is based on the study area described in Section 5.1 of this report. For some resources, the study area may extend farther to determine the incremental impacts to the resource within a larger community or landscape. The study areas for cumulative impacts are further described within the discussion of each resource in this section.

The future time frame for cumulative impacts considers actions that would have effects during the same time as effects of the Proposed Project. This report assumes construction of the Proposed Project would begin in 2024 and take approximately 18 months, ending in 2025. The Port anticipated that the project components would have an operational lifespan of up to 20 years. Therefore, the time frame for operations analyzed for the resources in this report is 2025 through 2045. The cumulative impact analysis also extends to the year 2045 in considering reasonably foreseeable future actions. This time frame conservatively accounts for future actions that may only be in the planning stages now but can reasonably be expected to be completed during the analysis period, as well as projects in more advanced planning or permitting phases. Current conditions are a result of past and present actions.

The current conditions in the study area that were used as the baseline existing environmental condition are described in Section 5. Therefore, the cumulative effect of past actions was assumed to be captured in the analysis of project impacts and was not separately called out in the analysis of cumulative impacts.

6.6.1 Reasonably Foreseeable Future Actions

State and local sources were used to identify the actions for consideration including the Port of Grays Harbor, the Washington Department of Transportation, and the cities of Aberdeen and Hoquiam. Several transportation improvement projects in the region have been identified by the Washington Department of Transportation in their Six Year State Transportation Improvement Program. Several minor projects from this program, such as minor pedestrian or street improvements or signal upgrades, have not been considered as cumulative projects due to their limited nature of due to their distance from the Project Area.

Twelve projects are currently in progress or are expected to occur in the foreseeable future, regardless of whether the Proposed Project proceeds. The impacts of these projects may have the potential to contribute to a cumulative impact on resources when combined with the impacts of the Proposed Project. As such, these projects are referred to as cumulative projects.

Table 1 and Figure 4 in the *Port of Grays Harbor Terminal 4 Expansion and Redevelopment Project Description Technical Report* (Anchor QEA 2023a) outline the cumulative projects and actions occurring in the relevant geographic study areas and time frames. As previously mentioned, the Proposed Project would not likely require the provision of new or additional public services or utilities in the Off-Site Project Area to accommodate the increased rail and ship traffic associated with operation of the Proposed Project. Therefore, this cumulative analysis focuses on potential cumulative impacts to public services and utilities in the vicinity of the On-Site Project Area. The closest projects to the On-Site Project Area are the Fry Creek Restoration and Pump Station Project, the U.S. 101 Fry Creek Culvert Replacement Project, and the U.S. 12 Heron Street Bridge Rehabilitation Project. These projects would rely on the same public services and utilities as the Proposed Project would.

Only the actions that could impact resources considered in this report were included in this analysis. Cumulative projects would be required to complete separate, project-specific SEPA environmental reviews and permitting, as appropriate.

6.6.2 Cumulative Impacts Analysis

Construction and operation of the Proposed Project would result in small increases in demand for police, fire protection, and emergency medical services, as well as for water supply, wastewater conveyance and treatment, solid waste collection and disposal, stormwater conveyance, electricity, natural gas, and telecommunications utility services in their respective service areas.² Similarly, construction and operation of the cumulative projects would also create demand for such public services and utilities. It is expected that the cumulative projects in the area would use the same public services and utility systems as those described for the Proposed Project in Section 5 of this report.

As previously noted in Section 5, the Aberdeen wastewater system is projected to be able to meet anticipated demand to at least 2038, so it would have sufficient capacity to treat additional cumulative wastewater flows. Similarly, the water supply and electrical energy supply systems are

² No Proposed Project-related increases in demand are anticipated for schools; libraries, parks, and other recreational facilities; postal services; or cemeteries.

projected to be able to meet anticipated demand to at least 2040, and the solid waste disposal facilities can meet anticipated demand to 2085; they, too, would have sufficient capacity to meet both Proposed Project and cumulative project demand for these utilities. Increases in the capacity to provide police, fire protection, and emergency medical services would be expected to keep pace with demand, in accordance with applicable comprehensive plans.

Like the Proposed Project, the cumulative projects would be required to obtain the applicable wastewater discharge permits, utility service permits, and public service approvals to remain in compliance with requirements, such as NPDES permits. Such approvals would not be issued if the public services and utility systems did not have the capacity to serve the projects.

The Proposed Project, in combination with reasonably foreseeable future actions, would be consistent with current land use planning and would not contribute substantially to cumulative impacts on public services and utilities. Cumulative impacts related to increased demand for utilities and public services would be negligible, because Proposed Project impacts would be low or negligible and existing public services and utilities are expected to be able to accommodate any increased demand. Negligible cumulative impacts on public services and utilities systems would be expected to occur as a result of the Proposed Project.

7 Mitigation

This section proposes mitigation measures that could be implemented to avoid, minimize, reduce, or compensate for specific impacts of the Proposed Project described in Sections 6.5.1 and 6.5.2.

Mitigation Measures for Potential Impacts to Police Services, Fire Protection and Emergency Medical Services

 The Proposed Project proponents shall prepare and implement a Construction Traffic Control Plan as part of the Proposed Project, including construction phasing that would be sequenced in a manner that gives special consideration to vehicular traffic and access to all construction work zones. Emergency access for police services, fire protection, and emergency vehicle services shall be maintained during construction so that emergency response times would not substantially increase over current levels.

Mitigation Measures for Potential Impacts to Schools, Libraries, Parks and Other Recreational Facilities, and Postal Services

• The Proposed Project proponents shall prepare and implement a Construction Traffic Control Plan as part of the Proposed Project, including construction phasing that would be sequenced in a manner that gives special consideration to vehicular traffic in the project vicinity.

Mitigation Measures for Potential Impacts to Water Supply Infrastructure

- The Proposed Project proponents shall coordinate with the APWD to ensure that any required excavation would not occur at or below the level of the existing water lines, or if necessary, the Proposed Project proponents shall work with the APWD to relocate this infrastructure.
- The Proposed Project proponents shall also coordinate with utility owners regarding potential for temporary disruptions to water service during construction to avoid or minimize adverse impacts.

Mitigation Measures for Potential Impacts to Wastewater Conveyance Infrastructure

- The Proposed Project proponents shall coordinate with the APWD to ensure that any required excavation would not occur at or below the level of the existing sanitary sewer lines, or if necessary, the Proposed Project proponents shall work with the APWD to relocate this infrastructure.
- The Proposed Project proponents shall also coordinate with utility owners regarding potential for temporary disruptions to water service during construction to avoid or minimize adverse impacts.

Mitigation Measures for Potential Impacts to Stormwater Conveyance Infrastructure

- The Proposed Project proponents shall develop a construction management plan that considers or includes the following:
 - Implementation of a stormwater management plan, SWPPP, and Water Quality Monitoring Program to be approved during the Clean Water Act Section 401 certification process.
 - Compliance with other provisions of a Clean Water Act Section 401 Water Quality Certification from Ecology, and construction stormwater permits will be procured from Ecology, the City of Hoquiam, and the City of Aberdeen as appropriate for all phases of construction.
 - Compliance with Ecology's construction NPDES permit including measurement and mitigation measures intended to limit stormwater and in-water turbidity effects.
 - Mitigation of direct and indirect stormwater impacts during construction through implementation of temporary erosion and sediment control best management practices and compliance with Ecology NPDES construction permit provisions.

Mitigation Measures for Potential Impacts to Solid Waste Collection Services

• The Proposed Project proponents shall also coordinate with solid waste collection providers regarding potential for temporary disruptions to solid waste services during construction to avoid or minimize adverse impacts.

Mitigation Measures for Potential Impacts to Energy Transmission Infrastructure

- The Proposed Project proponents shall coordinate with GHPUD and Cascade Natural Gas to avoid underground and overhead electrical and natural gas infrastructure to the extent possible. If necessary, the Proposed Project proponents shall work with these providers to relocate infrastructure.
- The Proposed Project proponents shall also coordinate with utility owners regarding potential for temporary disruptions to water service during construction to avoid or minimize adverse impacts.

Mitigation Measures for Potential Impacts to Telecommunications Infrastructure

- The Proposed Project proponents shall coordinate with telecommunications providers to avoid telecommunications infrastructure to the extent possible. If necessary, the Proposed Project proponents shall work with these providers to relocate infrastructure.
- The Proposed Project proponents would also coordinate with telecommunications providers regarding potential for temporary disruptions to telecommunications services during construction to avoid or minimize adverse impacts.

8 References

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