

3.2 Social and Community Resources

The social and community resources of an area include the public services in a community that bring people together and create cohesion. These resources include population characteristics, economic activity, and utility services. Changes to social and community resources occur when a project affects any of these elements. This section evaluates the potential adverse impacts on social and community resources resulting from construction and operation of the Proposed Action and No-Action Alternative. Social and community resources addressed in this section include social and community cohesion, public services, the local economy, and utilities.

Potential impacts on minority and low-income populations are also evaluated in this section, in an environmental justice analysis.¹ The environmental justice analysis addresses potential disproportionately high and adverse effects on minority and low-income populations. This analysis describes the minority and low-income populations in the study area. It then describes impacts on these populations that could result from construction and operation of the Proposed Action and No-Action Alternative, and assesses whether these impacts would be disproportionately high and adverse.

This section also presents the measures identified to mitigate impacts resulting from the Proposed Action and any remaining unavoidable and significant adverse impacts.

3.2.1 Regulatory Setting

Laws and regulations relevant to social and community resources for the Proposed Action are summarized in Table 3.2-1. As shown, these laws and regulations pertain to the assessment of minority and low-income populations.

Table 3.2-1. Regulations, Statutes, and Guidelines for Minority and Low-Income Populations

Regulation, Statute, Guideline	Description
Federal	
Title VI of the Civil Rights Act of 1964	Prohibits discrimination based on race, color, sex, and national origin in the provision of benefits and services resulting from federally assisted programs and activities.
Americans with Disabilities Act	Prohibits discrimination against disabled individuals.
Presidential Executive Order 12898, Environmental Justice	Promotes nondiscrimination in federal programs substantially affecting human health and the environment and provides minority and low-income community access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

¹ The U.S. Environmental Protection Agency (EPA) defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

3.2.2 Study Area

The study area for direct and indirect impacts on social and community resources include study areas for each element of the social and community resource analysis: social and community cohesion and public services, the local economy, utilities, and minority and low-income populations. The study areas for each element are listed below.

- **Social and Community Cohesion and Public Services.** For direct impacts, the study area is the project area and the area within 0.5 mile of the project area. For indirect impacts, the study area is the area within 0.5 mile of the affected rail lines in Cowlitz County (Reynolds Lead, BNSF Railway Company [BNSF] Spur, and BNSF main line). Figure 3.2-1 illustrates these study areas.
- **Local Economy.** For direct impacts, the study area includes the Cities of Kelso and Longview. For indirect impacts, the study area is Cowlitz County.
- **Utilities.** For direct impacts, the study area is the project area and the area within 0.5 mile of the project area. This study area only relates to construction and operation of the Proposed Action. For indirect impacts, the study area is the area within 0.5 mile of the project area.
- **Minority and Low-Income Populations.** For direct impacts, the study area is the project area and the area within approximately 1 mile of the project area (Figure 3.2-2). This study area only relates to construction and operation of the Proposed Action. For indirect impacts, the study area is the area within 0.5 mile of the affected rail lines in Cowlitz County.

3.2.3 Methods

This section describes the sources of information and methods used to evaluate the potential impacts on social and community resources associated with the construction and operation of the Proposed Action and No-Action Alternative.

3.2.3.1 Information Sources

The following sources of information were used to define the existing conditions relevant to social and community resources, and identify the potential impacts of the Proposed Action and No-Action Alternative on social and community resources.

- U.S. Census Bureau, Census 2000 data, 2009–2013 American Community Survey (ACS) data, and 2013 County Business Pattern Data available on American FactFinder
- U.S. Census Bureau On The Map data (U.S. Census Bureau 2015)
- U.S. Census Bureau 2013 Zip Code Business Patterns data
- U.S. Department of Labor, Bureau of Labor Statistics Local Area Unemployment Statistics
- State of Washington Office of Financial Management data
- Cowlitz Economic Development Council data
- Cowlitz-Wahkiakum Council of Governments data
- Various websites to inventory public service facilities in the study areas, including Google Maps and websites for Cowlitz County and the Cities of Castle Rock, Kelso, Woodland, and Longview.

Figure 3.2-1. Study Areas for Social and Community Cohesion and Public Services

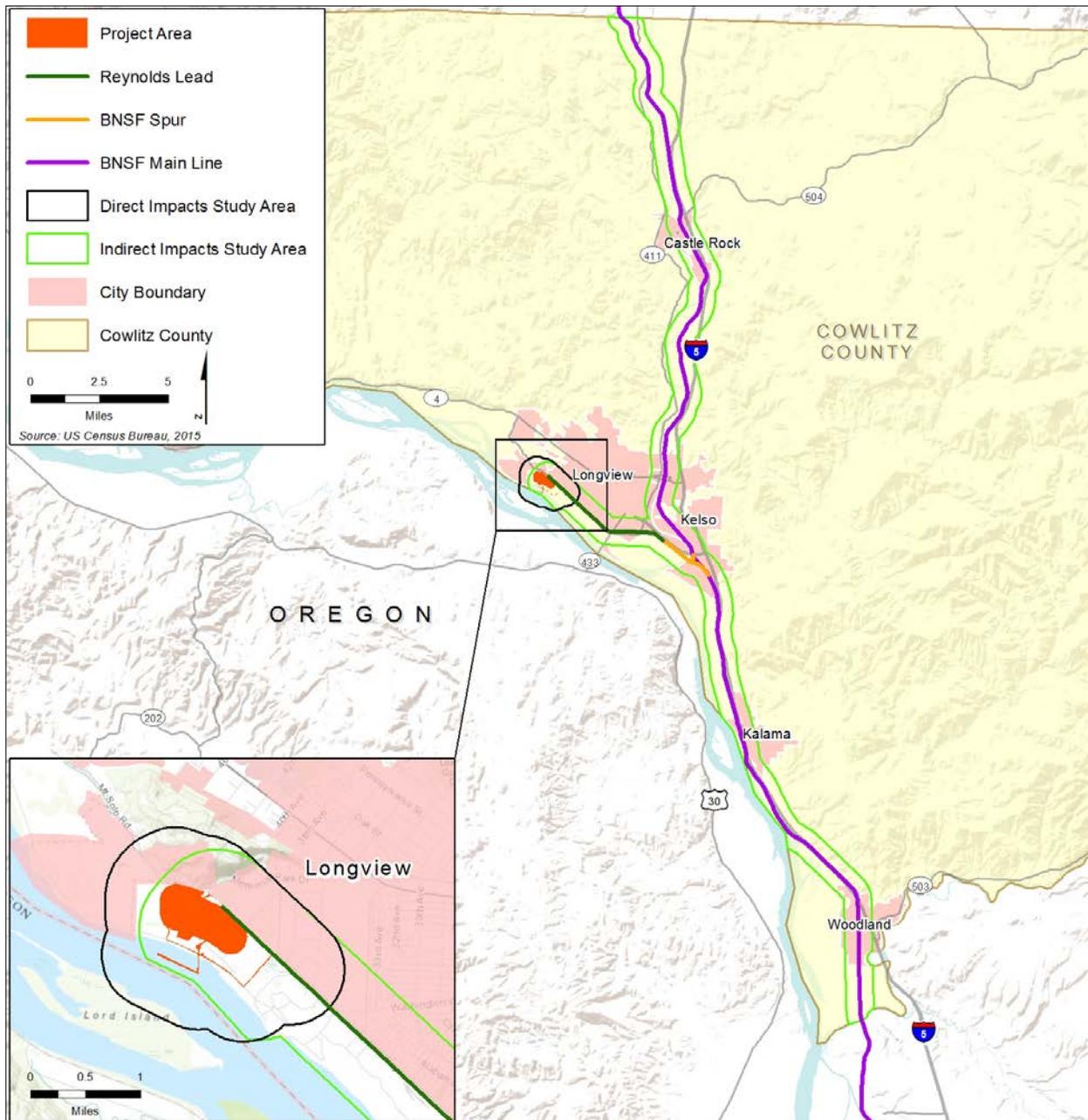
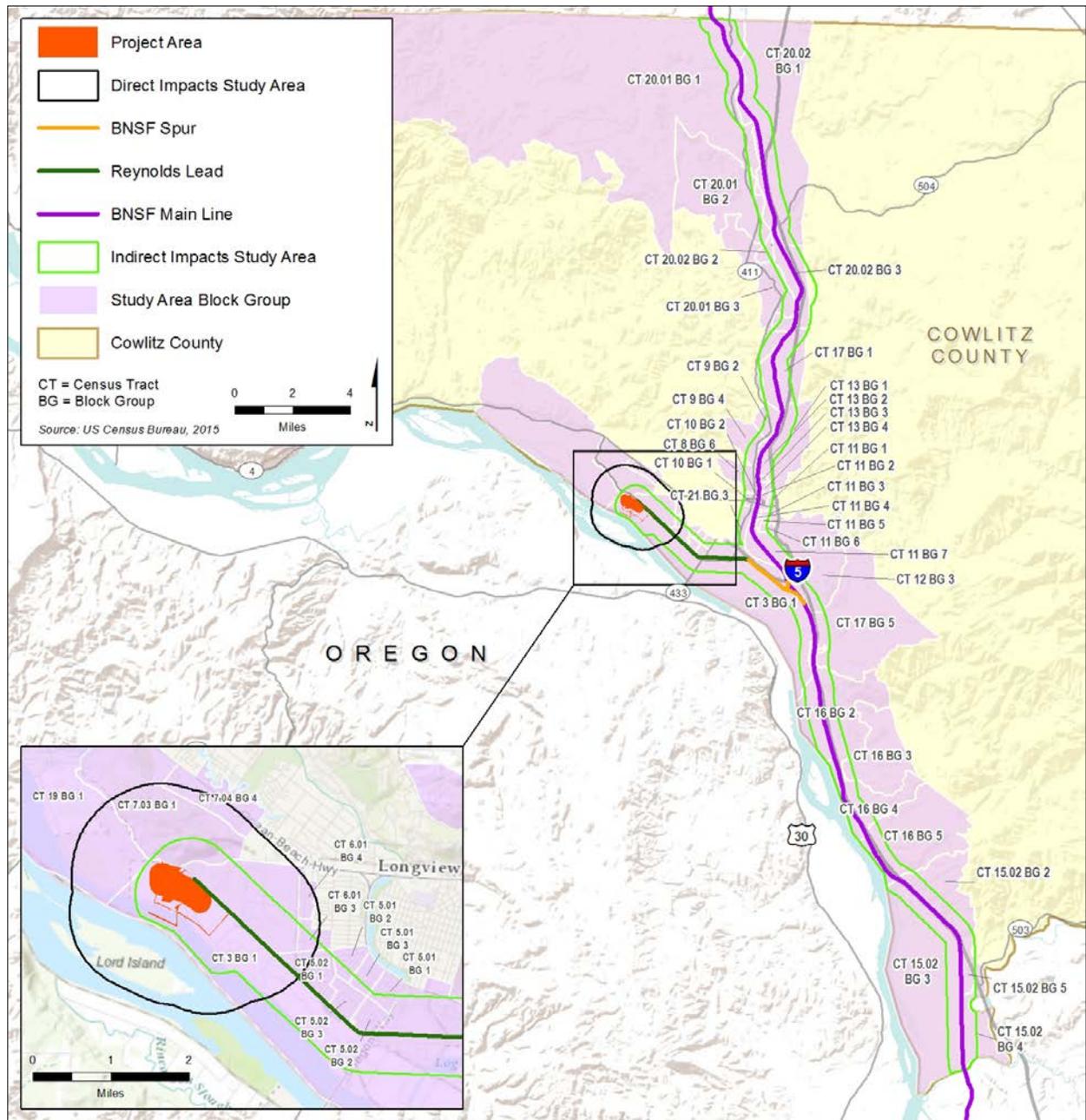


Figure 3.2-2. Minority and Low-Income Populations Study Area



3.2.3.2 Impact Analysis

The following methods were used to evaluate the potential impacts of the Proposed Action and No-Action Alternative on social and community resources.

Social and Community Cohesion and Public Services

This analysis describes existing social and community cohesion in terms of the area's population characteristics, the various public services and social institutions that serve the community and create cohesion (such as parks, schools, and places of religious worship), and the access and linkages between the community and those services. Demographic data were compiled based on the U.S. Census Bureau (census) block group boundaries within the social and community cohesion study area: Census Tract 3 Block Group 1, Census Tract 7.03 Block Group 1, and Census Tract 19 Block Group 1 (Figure 3.2-3).

The analysis then evaluates if the Proposed Action could affect social and community cohesion by altering population characteristics, dividing or isolating a neighborhood, or separating residents from public services by changing travel patterns. This evaluation considers the location of public services in the study areas relative to characteristics of the Proposed Action. Impacts on social and community cohesion occur when an action does one of the following.

- Divides or isolates part of a neighborhood.
- Displaces or alters a public service facility, such as an educational facility, library, public park, or recreational facility.
- Generates substantial new development or changes property values leading to the displacement of substantial portions of the existing community.

Impacts on public services occur when an action introduces a new population or service demand that affects the services delivered by a public service facility, or if an action separates residents from public services by changing travel patterns or access to the service.

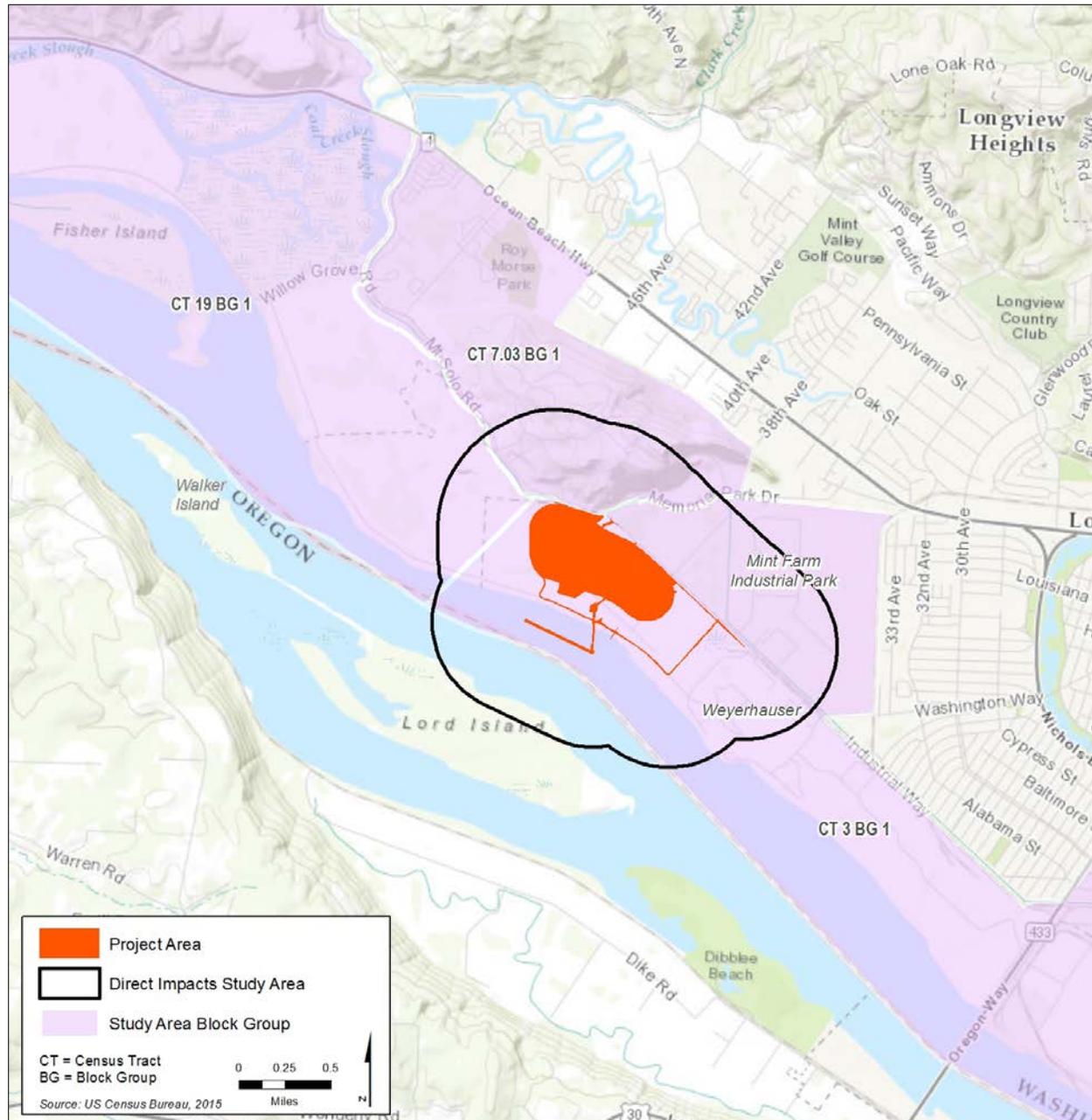
Local Economy

The assessment of the local economy includes information describing existing economic conditions, including data on the labor force, unemployment, job inflows, major employers, local tax revenues, and business activity. Future developments that would affect economic activity are also identified. The impact assessment projects potential direct, indirect, and induced economic and fiscal benefits associated with the Proposed Action, and evaluates the potential to affect business activity. This assessment is not intended to be a cost benefit analysis.

The projections of potential direct, indirect, and induced economic and fiscal benefits presented in this section are derived from the study titled *Economic and Fiscal Impacts of Millennium Bulk Terminals Longview* prepared by BERK (2012) on behalf of the Applicant. This study used an input-output model to estimate the economic and fiscal impacts of the Proposed Action in terms of jobs, wages, and economic output; specific technical details on the input-output model were not provided by the Applicant. Estimates of indirect and induced economic impacts were modeled using the Washington State Input-Output Model developed for the Washington State Office of Financial

Management. The study also estimated the tax revenues generated by the construction and operation of the Proposed Action.

Figure 3.2-3. Census Tract and Block Groups in the Direct Impacts Study Area for Social and Community Cohesion and Public Services



Utilities

The assessment of utilities focuses on water utilities, including potable water and wastewater service, and electrical utilities. Electricity and natural gas consumption are addressed in Chapter 4, Section 4.9, *Energy and Natural Resources*. This evaluation assesses whether the Proposed Action would have the potential to affect utility service directly by altering the water supply or wastewater conveyance system or electrical utilities. The evaluation also assesses the potential for indirect impacts from new demands on water supply capacity and/or wastewater treatment capacity.

Minority and Low-Income Populations

The assessment of minority and low-income populations used guidance published by the Council on Environmental Quality (CEQ) (1997), which involved the following six steps.

1. Identify the area where the Proposed Action could cause adverse effects either during construction or operation (i.e., the study area, described in Section 3.2.2, *Study Area*).
2. Compile minority and low-income data for the census block groups in the study area and identify minority and low-income populations.
3. Identify the Proposed Action's potential adverse effects on minority and low-income populations.
4. Evaluate the Proposed Action's potential adverse effects on minority and low-income communities relative to the effects on the overall population to determine if potential adverse effects on those communities would be disproportionately high and adverse.
5. Discuss mitigation measures for any identified disproportionate adverse effects.
6. Describe the public outreach and participation process for effectively engaging minority and low-income populations in the decision-making process.

Identification of Minority and Low-Income Populations

Census block groups were selected as the geographic unit for analysis to avoid artificially diluting or inflating the affected populations, consistent with CEQ guidance. As shown in Figure 3.2-2, the study area for direct and indirect effects includes 46 census block groups.

Data on race, ethnicity, and poverty status were gathered from the U.S. Census Bureau's 2009–2013 ACS for the census block groups in the study area. For comparison purposes, data for the City of Longview and Cowlitz County were also compiled. Based on census data and CEQ guidance, potential minority and low-income populations were identified as follows.

- **Minority populations.** CEQ guidance defines minorities to include American Indians or Alaskan Natives, Asian and Pacific Islanders, African Americans or Black persons, and Hispanic persons. This analysis also considers minority populations to include persons who identified themselves as being either "some other race" or "two or more races" in the 2009–2013 ACS. Following CEQ guidance, minority populations were identified where either 1) the minority population of the affected area exceeds 50%; or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate comparison unit of geographic analysis (Council on Environmental Quality 1997). For the purposes of this analysis, *meaningfully greater* is interpreted as *at least 50%*

greater. This analysis used Cowlitz County as the primary comparison area. In Cowlitz County, the minority population in the 2009–2013 ACS was 14.6% of the total population. Therefore, this analysis considers any study area block group with a minority population of greater than 21.9% to be a minority community.

- **Low-income populations.** This study defines low-income populations as the percent of individuals living below the poverty level in each census block group, as presented in the 2009–2013 ACS. CEQ guidance does not specify a threshold for identifying clusters of low-income populations. Therefore, for this analysis, any census block group with a percentage of low-income population at least 50% greater than the percentage in Cowlitz County as a whole was considered a low-income community. In Cowlitz County, the low-income population (the population with incomes below the poverty level) is approximately 17.6% of the total population. Therefore, this assessment identifies low-income communities as those in which the census block group population living below the poverty level exceeds 26.4%.

Identification of Potential Disproportionately High and Adverse Effects

The determination of the Proposed Action’s potential to result in disproportionately high and adverse effects involved the following considerations.

- If the adverse project impact is considered significant.
- If the impacts on minority or low-income populations would appreciably exceed, or would be likely to appreciably exceed, the risk or rate to the general population.
- If the minority or low-income population would be affected by cumulative or multiple adverse exposures from environmental hazards.²

In making this determination following CEQ guidance, it was recognized that effects on minority or low-income populations may be different from effects on the general population (e.g., due to a community’s distinct cultural practices, such as a pattern of living that relies on subsistence fish, vegetation, or wildlife consumption). The determination of disproportionately high and adverse effects also involved consideration of proposed mitigation measures and offsetting benefits.

All resource sections in Chapters 3, 4, and 5 present the impacts resulting from construction and operation of the Proposed Action. These impacts were evaluated for their potential to result in disproportionately high and adverse effects on minority and low-income communities in the *SEPA Social and Community Resources Technical Report* (ICF International and BergerABAM 2016). A summary of the evaluation is provided in Section 3.2.5, *Impacts*.

As discussed in the *SEPA Social and Community Resources Technical Report*, the assessment of disproportionately high and adverse effects on minority and low-income communities focused on potential impacts that could affect minority and low-income populations, including impacts related to aesthetics, light, and glare; cultural resources; tribal resources; fish; geology and soils; groundwater; noise and vibration; and vehicle transportation. In other resource areas, the Proposed Action would not result in adverse impacts or would result in low or minor impacts that would be avoided or minimized with standard best management practices or other mitigation measures. In certain resource areas (e.g., climate change and greenhouse gas emissions), the Proposed Action

² According to CEQ guidance, the term “environmental hazard” means a chemical, biological, physical, or radiological agent, situation, or source that has the potential for deleterious effects to the environment and/or human health.

would result in impacts that occur within a global context. Based on the analysis presented in the *SEPA Social and Community Resources Technical Report*, the Proposed Action would not have the potential to result in disproportionately high and adverse effects on minority and low-income populations in these resource areas.

3.2.4 Existing Conditions

This section describes the existing environmental conditions related to social and community resources that could be affected by the construction and operation of the Proposed Action and the No-Action Alternative.

3.2.4.1 Social and Community Cohesion and Public Services

This section describes social and community cohesion in terms of population, the various public services and social institutions that serve the community, and the access and linkages between the community and those services.

The direct impacts study area (project area and within 0.5 mile of the project area) is characterized by predominantly industrial and transportation/utility land uses, along with limited residential uses to the north of Mount Solo Road. The area east of the project area is part of a wide corridor of industrial land uses along the Columbia River. Notable uses include the Weyerhaeuser Company lumber products manufacturing site/North Pacific Paper Corporation (NORPAC) facility and Mint Farm Industrial Park. The area west of the project area is Barlow Point, which includes an undeveloped parcel owned by the Port of Longview, the closed Mount Solo Landfill, and large-lot residential and agricultural land uses south of Industrial Way. Neighborhoods in the direct impacts study area include Barlow Point, Memorial Park, and Mint Farm (City of Longview 2007).

The indirect impacts study area along the Reynolds Lead and BNSF Spur (within 0.5 mile of these rail lines) includes the Highlands neighborhood and the Industrial and California Way neighborhood in Longview. The Highlands neighborhood is predominantly residential. The Industrial and California Way neighborhood includes a mix of commercial and industrial uses. On the BNSF main line, the indirect impacts study area (within 0.5 mile of this rail line) includes undeveloped and low-density rural land uses, and urban areas, including Castle Rock, Kelso, Kalama, and Woodland.

Population Characteristics

Key population characteristics, including local population and population projections, are summarized below. The *SEPA Social and Community Resources Technical Report* provides a full discussion of population characteristics, including local population, population projections, age distribution, households, family composition, race and ethnicity, limited English proficiency, disability status, median household income and poverty status, and housing characteristics.

Table 3.2-2 presents the population for the direct impacts study area, Longview, and Cowlitz County in 2000, 2010, and 2013. The population of the study area has declined by approximately 3% since 2000. In comparison, the populations of both Longview and Cowlitz County grew from 2000 to 2010 and remained flat from 2010 to 2013. Census Tract and Block Groups are shown in Figure 3.2-3.

Table 3.2-2. Population Estimates for Years 2000, 2010, and 2013

Area	Population 2000	Population 2010	Percent (%) Change 2000–2010	Population 2013	Percent (%) Change 2010–2013
Direct Impacts Study Area (Project Area and within 0.5 mile of the Project Area)					
Census Tract 3 Block Group 1 ^a	868	509	-41.4	570	12.0
Census Tract 7.03 Block Group 1 ^b	1,367	1,601	--	1,373	-14.2
Census Tract 19 Block Group 1	827	956	15.6	1,021	6.8
	3,062	3,066	0.1	2,964	-3.3
Longview	34,660	36,648	5.7	36,656	0.0
Cowlitz County	92,948	102,410	10.2	102,110	-0.3

Notes:

^a The drop in population in this census tract is largely due to the displacement of mobile home units from 2000 to 2010. In particular, the 166-space River City RV and Mobile Home Park, located near the corner of California Way and 7th Avenue, closed in 2009 for the development of a Super Walmart.

^b Census Tract 7.03 Block Group 1 applies to demographic data for 2010 and 2013. In the 2000 Census, this area is closely approximated by Census Tract 7.01 Block Group 4. The 2000 Census data are presented for informational purposes, but a percent change is not presented because the geographic areas are not identical.

Source: U.S. Census Bureau 2000 Census, 2010 Census, ACS 2009–2013 5-year estimates.

Table 3.2-3 shows Cowlitz County population projections to 2040 (Washington State Office of Financial Management 2012). The population of Cowlitz County is projected to grow by approximately 6% from 2010 to 2020. Lower growth rates are estimated from 2020 to 2040. Over the coming decades, it is projected that the age distribution in Cowlitz County will shift, with an increase in the elderly population (age 65 and over) and a decrease in the school-age population (age 0 to 17) (Cowlitz County 2015). It is also expected that the proportion of the population with a disability will increase as the share of elderly population increases.

Table 3.2-3. Cowlitz County Population Projections to 2040

Area	Population 2010	Population 2020	Population 2030	Population 2040	Percent (%) Change 2010–2040
Cowlitz County	102,410	108,588	114,158	116,897	14.1
Percent Change over Previous 10 Years	--	6.0	5.1	2.4	--

Notes:

Source: Washington State Office of Financial Management 2012.

Public Services

For the purposes of this assessment, public services include educational facilities, religious institutions, social institutions, medical facilities, fire protection and emergency medical services, police services, cemeteries, public park and recreation facilities, and other notable public services and government institutions.

There are no public service facilities in the direct impacts study area (project area and within 0.5 mile of the project area). Table 3.2-4 illustrates the public service facilities in the indirect impacts study area (within 0.5 mile of the Reynolds Lead, BNSF Spur, and BNSF main line).

Table 3.2-4. Public Service Facilities in the Indirect Impacts Study Area

Type of Facility	Area						Unincorporated Cowlitz County
	Longview	Kelso	Kalama	Castle Rock	Woodland		
Educational Facility	2	3	2	3	4		1
Religious Institution	4	11	2	6	3		6
Social Institution	1	4	1	3	3		0
Medical Facility	2	2	0	1	2		0
Fire Protection	1	2	1	1	1		2
Police Facility	1	3	1	1	1		0
Cemetery	0	0	0	0	0		3
Library	0	1	0	1	1		0
Parks and Recreation Facility	3	10	1	4	3		1
Other	7	14	2	2	2		1
Total	21	50	10	22	20		14

Access and Linkages

A variety of roadway, pedestrian, transit, and bicycle transportation facilities provide access to and among the various public service facilities. Local roadways, Interstate 5, and state highways provide access to public service facilities and between the urban areas within Cowlitz County. In general, pedestrian access is better in the downtown urban areas located along the rail line, such as in Longview and Kelso, than in more rural, suburban, and industrial areas.

River Cities Transit provides public transit throughout the Longview/Kelso area. The closest transit route to the project area is Route 31, which runs along 32nd Avenue, Washington Way, and Alabama Street into downtown Longview. The nearest portion of Route 31 is approximately 1 mile from the project area. Route 33 and Route 44 both run along Ocean Beach Highway and are approximately 1 to 2 miles from the project area. No fixed transit routes directly serve the project area, nor do any routes cross the Reynolds Lead. Frequent and comprehensive transit service is a critical support service to residents with no access to a vehicle, especially those who are low-income, homeless, and/or reliant on public transit (River Cities Transit 2015).

Within Cowlitz County, there are various bicycle trails in parks and along certain waterfront areas. Several bicycle trails are located along the Columbia and Cowlitz rivers; however, there are no designated bicycle trails within the direct impacts study area (0.5 mile from the project area). Bicycle trails that may provide access to public services are discussed in more detail in the *SEPA Social and Community Resources Technical Report*.

Fire Protection and Emergency Medical Services

The Cowlitz 2 Fire & Rescue District and American Medical Response (AMR) provide emergency medical services and fire protection for the project area. A brief description of each of these service providers is below; additional information on the stations, facilities, and apparatus of each is provided in the *SEPA Social and Community Resources Technical Report*.

Cowlitz 2 Fire & Rescue provides fire protection services, and serves approximately 34,000 citizens in the City of Kelso and unincorporated Cowlitz County, responding to approximately 4,100 calls per year (Cowlitz 2 Fire & Rescue 2015). The district is staffed by approximately 120 full-time and volunteer members in five active fire stations, two of which are staffed with full-time EMT and paramedic firefighters. Volunteer firefighter EMTs also respond on an on-call basis.

AMR is a private ambulance company that provides emergency and non-emergency medical transport service. AMR includes approximately 35 paramedics and EMTs, and handles an average of 7,500 calls annually (American Medical Response 2015). The medical transport vehicles are based out of the facility near the Cowlitz Highway intersection with Long Avenue.

3.2.4.2 Local Economy

This section discusses important characteristics of the local economy, including the labor force, job inflow and outflow, unemployment, and business activity. Additional information regarding the local economy, including employment, local government revenues, and economic development activities, is provided in the *SEPA Social and Community Resources Technical Report*. For direct impacts on the local economy, the study area includes the Cities of Kelso and Longview. For indirect impacts, the study area is Cowlitz County.

Labor Force

Table 3.2-5 shows labor force data, which include the total number of people employed or seeking employment, for Longview and Cowlitz County. In 2014, Longview had a total labor force of approximately 15,019 people, which was 4.4% less than in 2004. Over the same period, the labor force in Cowlitz County overall grew by approximately 3.0%, to 44,048 people.

Table 3.2-5. Average Annual Labor Force

Area	2004	2014	Percent (%) Change
Longview	15,707	15,019	-4.4
Cowlitz County	42,763	44,048	3.0

Notes:

Data are only available for cities and towns with a population over 25,000.

Source: U.S. Bureau of Labor Statistics 2015a.

Cowlitz County Jobs

Table 3.2-6 presents data on the number of workers in Cowlitz County and where they reside, as well as the number of workers who live in Cowlitz County but work outside it. As shown, there were 31,988 employed workers in Cowlitz County in 2011. Approximately 65% lived in Cowlitz County, while 35% lived outside Cowlitz County. Of the workers that did not live in Cowlitz County, the highest proportions resided in Clark County to the south, Lewis County to the north, and across the

river in Columbia County, Oregon. Cowlitz County employers also drew workers from larger labor pools in King County (the Seattle area) and Multnomah County (the Portland area). Approximately 20,353 workers reside in Cowlitz County but work outside of the county. Of the workers who live in Cowlitz County but are employed outside it, the highest proportions were employed in Clark County and Multnomah County to the south and King County to the north.

Table 3.2-6. 2011 Jobs Inflow and Outflow for Cowlitz County

Area	Number of Workers	Percent (%) of Total
Total Primary Jobs in Cowlitz County	31,988	100.0
Employed in Cowlitz County and Living Inside the County	20,765	64.9
Employed in Cowlitz County but Living Outside the County	11,223	35.1
Clark County, WA	3,560	11.1
Columbia County, OR	1,080	3.4
Lewis County, WA	1,073	3.4
King County, WA	657	2.1
Pierce County, WA	523	1.6
Thurston County, WA	362	1.1
Grays Harbor County, WA	339	1.1
Multnomah County, OR	359	1.1
All Other Locations	3,270	9.2
Living Inside Cowlitz County but Employed Outside the County	20,353	100.0
Clark County, WA	4,256	10.4
King County, WA	2,907	7.1
Multnomah County, OR	2,148	5.2
Pierce County, WA	1,710	4.2
Thurston County, WA	1,220	3.0
Washington County, OR	1,019	2.5
Lewis County, WA	795	1.9
Yakima County, WA	591	1.4
Clackamas County, OR	547	1.3
All Other Locations	5,160	12.5

Notes:

Source: U.S. Census Bureau, On The Map 2011

Unemployment

Table 3.2-7 presents unemployment numbers and rates in Longview and Cowlitz County. In 2014, there were 1,278 and 3,697 unemployed people in Longview and Cowlitz County, respectively, representing approximately 8.5 and 8.4% of the communities' respective labor forces. In contrast, in December 2014, the unemployment rate in Washington was 6.3%, and the rate for in the nation as a whole was 5.6% (U.S. Bureau of Labor Statistics 2015a, 2015b).

Table 3.2-7. Unemployment Rates for the City of Longview and Cowlitz County

Area	Unemployed Population		Unemployment Rate	
	2004	2014	2004	2014
Longview	1,395	1,278	8.9%	8.5%
Cowlitz County	3,705	3,697	8.7%	8.4%
Washington State	187,334	223,295	5.8%	6.3%
United States	7,934,000	8,704,000	5.4%	5.6%

Notes:
Data are available only for cities and towns with a population over 25,000.
Source: U.S. Bureau of Labor Statistics 2015a.

Business Activity

Business activity in the direct impacts study area includes a mix of industrial and commercial uses. The 550-acre Weyerhaeuser Company lumber products manufacturing site/NORPAC facility is located upriver (southeast) of the project area along the Columbia River. This manufacturing facility produces liquid packaging board, newsprint, and other specialty papers and includes open-air storage of lumber (Weyerhaeuser 2014a, 2014b). The Mint Farm Industrial Park, a partially developed 445-acre industrial site operated as a public-private partnership between Longview and the Weyerhaeuser Real Estate Development Company, is located across Industrial Way from the project area. Current tenants include Epson Toyocom (manufacturer of quartz devices), Flexible Foam Products (manufacturer of polyurethane foam and carpet cushion), Northwest Renewables LLC (a proposed biomass energy facility), and the Mint Farm Energy Center (a natural gas energy plant) (The Mint Farm 2014).

Many commercial and industrial businesses are within the indirect impacts study area. This study area passes through several Columbia River ports—including the ports of Longview, Kalama, and Woodland—containing numerous industrial and marine-related businesses. The study area also passes through several urban areas that contain a mix of industrial, commercial, and residential land uses.

3.2.4.3 Utilities

This section describes existing utility services provided to the project area. This assessment focuses on water utilities, including potable water and wastewater service, and electrical utilities. Electricity and natural gas consumption are addressed in Chapter 4, Section 4.9, *Energy and Natural Resources*. For direct impacts on utilities, the study area is the project area and the area within 0.5 mile of the project area. For indirect impacts on utilities, the study area is the area within 0.5 mile of the project area.

An existing sewage treatment system provides sewer service to the project area. An existing on-site industrial wastewater treatment facility and stormwater/wastewater collection and treatment system provides wastewater treatment. The Applicant replaced the sanitary sewer collection and treatment systems with a new collection system and connection to the Longview sewer system (URS Corporation 2014). With the new connection, project area sewage flows are conveyed to the Three Rivers Regional Treatment Plant. This wastewater treatment plant has a design capacity of 26.0 million gallons per day (Washington State Department of Ecology 2012). From 2001 to 2009, the

plant received an average wet-weather (typically the highest rate) flow of 3.04 million gallons per day (City of Kelso 2011).

The Mint Farm Regional Water Treatment Plant supplies drinking water to more than 45,000 people in the Longview area. Groundwater is tapped from wells in the Mint Farm Industrial Park, and the water plant consists of four high-capacity (4,000 gallons per minute) groundwater wells. The project area receives potable water from Longview through a connection on Industrial Way. This water is for domestic usage such as sinks and toilets in existing facilities (URS Corporation 2014).

For stormwater, the project area also includes on-site stormwater ponds that provide water for dust control and other production needs. The stormwater ponds are supplemented with groundwater well withdrawals during dry periods (URS Corporation 2014).

For electricity, the project area also includes two Bonneville Power Administration (BPA) parcels. One parcel includes high-power transmission lines and the second parcel includes a power substation with an access road.

3.2.4.4 Minority and Low-Income Populations

This section describes the existing minority and low-income populations in the study areas that could be affected by the construction and operation of the Proposed Action and the No-Action Alternative. For direct impacts on minority and low-income populations, the study area is the project area and the area within approximately 1 mile of the project area. The study area for indirect impacts is the area within 0.5 mile of the affected rail lines in Cowlitz County.

Race, ethnicity, and poverty characteristics were compiled for the study area's block groups, Longview, and Cowlitz County as a whole. Table 3.2-8 provides the population, percent minority, and percent low-income for each block group in the study areas. Of the 46 census block groups within the study area, 16 have minority populations that exceed the 21.9% threshold, ranging from 23.7 to 42.4%. In addition, 18 of the census block groups have low-income populations that exceed the 26.4% threshold, ranging from 26.6 to 57.6%. The *SEPA Social and Community Resources Technical Report* provides detailed data on race, ethnicity, and poverty status for the study area. Overall, 21 of the study area's 46 block groups are considered minority and/or low-income communities for the purposes of this analysis. The remaining 25 block groups are not considered minority or low-income communities. Figure 3.2-4 shows the location of minority and low-income communities within the study area.

Within the direct impacts study area, three of six block groups are identified as minority or low-income communities. These block groups are located to the east of the project area. These block groups contain industrial uses in the areas nearest the project area, and residential uses are located approximately 1 mile or more from the project area. The nearest residences to the project area (those located north of State Route 432) are not located within a minority and/or low-income community.

Within the indirect impacts study area, 18 of 40 block groups are identified as minority or low-income communities. These block groups are located along the Reynolds Lead and BNSF Spur in Longview and along the BNSF main line primarily in Longview, Kelso, and Woodland.

Table 3.2-8. Minority and Low-Income Status by Block Group

Census Block Group	2013 Total Population	Percent Minority^a	Percent Low-Income^a
Direct Impacts Study Area Census Block Groups (Project Area and Area within 1 Mile of the Project Area)			
Census Tract 3, Block Group 1	570	35.4	44.7
Census Tract 6.01, Block Group 3	1,025	42.4	32.0
Census Tract 6.01, Block Group 4	881	20.0	31.4
Census Tract 7.03, Block Group 1	1,373	15.1	23.7
Census Tract 7.04, Block Group 4	1,912	11.9	18.8
Census Tract 19, Block Group 1	1,021	2.0	23.5
Direct Impacts Study Area Census Block Groups^b	6,782	18.7	26.3
Indirect Impacts Study Area Census Block Groups (Within 0.5 Mile of the Reynolds Lead, BNSF Spur, and BNSF Main Line)			
Census Tract 5.01, Block Group 1	846	24.3	24.7
Census Tract 5.01, Block Group 2	1,047	23.7	21.2
Census Tract 5.01, Block Group 3	952	8.3	18.8
Census Tract 5.02, Block Group 1	1,587	33.1	39.6
Census Tract 5.02, Block Group 2	1,841	28.1	57.6
Census Tract 5.02, Block Group 3	1,454	26.4	44.8
Census Tract 8, Block Group 6	1,203	5.2	7.7
Census Tract 9, Block Group 2	2,980	21.9	5.5
Census Tract 9, Block Group 4	1,891	11.3	8.7
Census Tract 10, Block Group 1	899	35.2	41.6
Census Tract 10, Block Group 2	288	2.1	28.5
Census Tract 11, Block Group 1	717	9.6	24.1
Census Tract 11, Block Group 2	506	25.1	46.6
Census Tract 11, Block Group 3	704	30.5	39.2
Census Tract 11, Block Group 4	579	13.5	27.8
Census Tract 11, Block Group 5	1,361	35.9	37.5
Census Tract 11, Block Group 6	716	12.7	24.7
Census Tract 11, Block Group 7	714	16.8	33.8
Census Tract 12, Block Group 3	1,338	11.0	17.8
Census Tract 13, Block Group 1	977	3.6	21.5
Census Tract 13, Block Group 2	899	29.1	26.7
Census Tract 13, Block Group 3	752	19.9	11.7
Census Tract 13, Block Group 4	983	26.6	47.8
Census Tract 15.02, Block Group 2	934	13.8	6.2
Census Tract 15.02, Block Group 3	599	23.7	57.8
Census Tract 15.02, Block Group 4	1,602	32.8	14.0
Census Tract 15.02, Block Group 5	504	26.8	38.5
Census Tract 16, Block Group 2	881	5.3	7.7
Census Tract 16, Block Group 3	1,510	1.8	4.2

Census Block Group	2013 Total Population	Percent Minority^a	Percent Low-Income^a
Census Tract 16, Block Group 4	1,470	17.9	11.4
Census Tract 16, Block Group 5	2,233	7.5	11.2
Census Tract 17, Block Group 1	535	0.0	10.8
Census Tract 17, Block Group 5	1,900	12.9	4.8
Census Tract 20.01, Block Group 1	847	17.7	26.6
Census Tract 20.01, Block Group 2	1,172	5.6	1.2
Census Tract 20.01, Block Group 3	1,083	4.5	3.4
Census Tract 20.02, Block Group 1	1,378	11.7	12.1
Census Tract 20.02, Block Group 2	1,294	16.1	12.1
Census Tract 20.02, Block Group 3	1,031	0.0	3.4
Census Tract 21, Block Group 3	1,164	18.0	17.7
Indirect Impacts Study Area Census Block Groups^c	45,371	17.1	20.4
Longview	36,656	18.4	22.6
Cowlitz County	102,110	14.6	17.6

Notes:

Shading indicates a minority and/or low-income community. The threshold for a minority community was a percent minority of at least 21.9%. The threshold for a low-income community was a percent low-income of at least 26.4%.

^a Minority status includes individuals defined in the census as any race or ethnicity other than white alone and not Hispanic or Latino. Percent low-income is based on the population for whom the Census Bureau can determine poverty status. For some block groups, the population for whom poverty status is determined is slightly smaller than the total population.

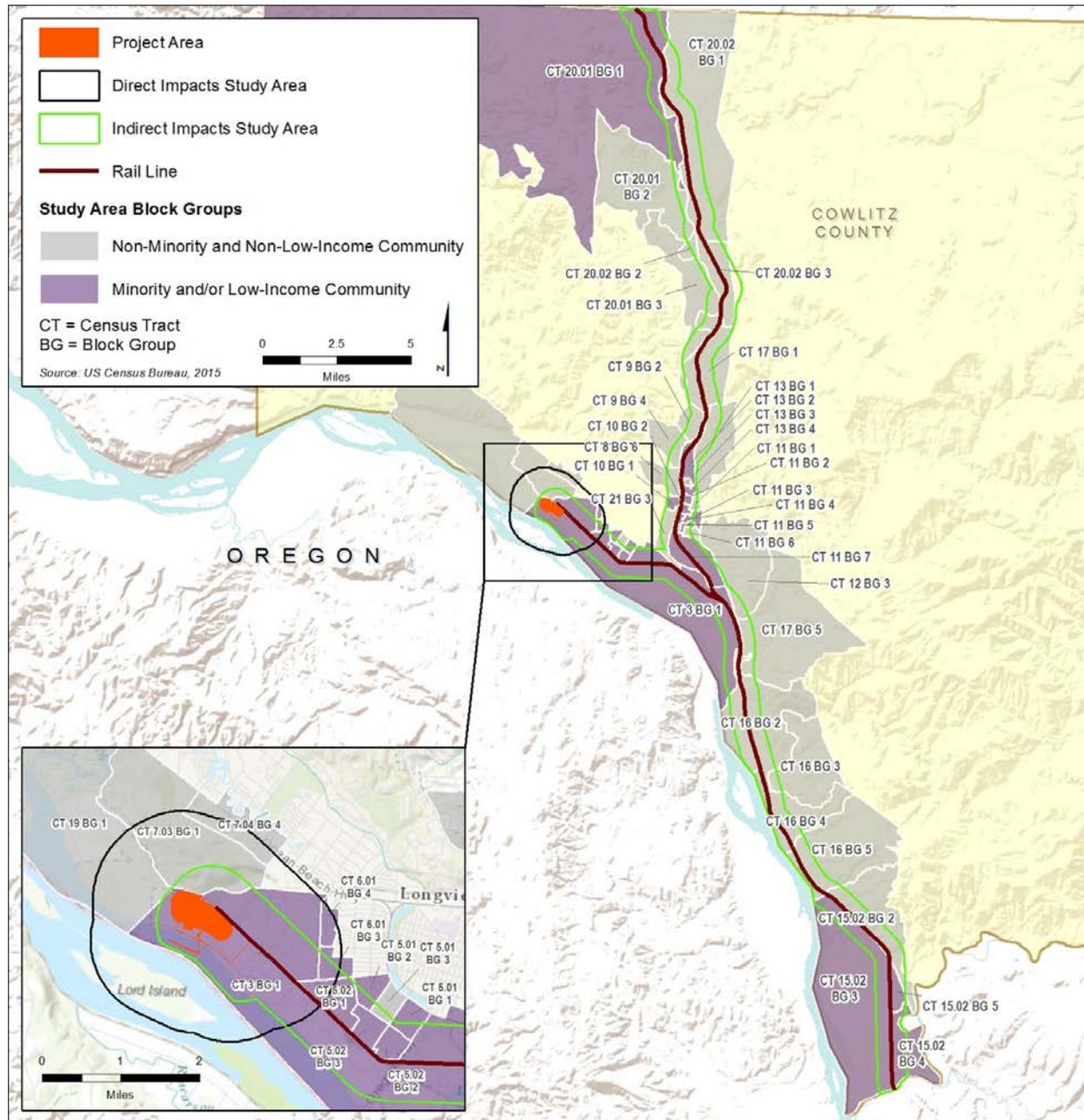
^b Census Block Groups within 1 mile of the project areas.

^c Census Block Groups within 0.5 mile of affected rail lines in Cowlitz County.

Source: U.S. Census Bureau ACS 2009–2013 5-year estimates.

During interviews conducted for the Proposed Action’s public involvement plan, stakeholders expressed that the Highlands neighborhood in the City of Longview warranted environmental justice consideration under Executive Order 12898. Consistent with that recommendation, this analysis identifies the Highlands neighborhood in the City of Longview as a minority and low-income community. The Highlands neighborhood corresponds with Census Tract 5.02, Block Groups 1, 2, and 3, which are shown in Figure 3.2-4.

Figure 3.2-4. Minority and Low-Income Communities



3.2.5 Impacts

This section describes the potential direct and indirect impacts related to social and community resources that would result from construction and operation of the Proposed Action and the No-Action Alternative.

The study areas for direct and indirect impacts for each element of this social and community resources are listed below.

- **Social and Community Cohesion and Public Services.** For direct impacts, the study area is the project area and the area within 0.5 mile of the project area. For indirect impacts, the study area is the area within 0.5 mile of the affected rail lines in Cowlitz County.
- **Local Economy.** For direct impacts, the study area includes the Cities of Kelso and Longview. For indirect impacts, the study area is Cowlitz County.
- **Utilities.** For direct impacts, the study area is the project area and the area within 0.5 mile of the project area. For indirect impacts, the study area is the area within 0.5 mile of the project area.
- **Minority and Low-Income Populations.** For direct impacts, the study area is the project area and the area within approximately 1 mile of the project area. For indirect impacts, the study area is the area within 0.5 mile of the affected rail lines in Cowlitz County.

3.2.5.1 Proposed Action

This section describes potential impacts that could occur in the study areas as a result of construction and operation of the Proposed Action.

Construction—Direct Impacts

Construction-related activities associated with the Proposed Action would result in direct impacts as described below.

Social and Community Cohesion and Public Services

Construction of the Proposed Action would not directly affect social and community cohesion or public services because construction activities would be limited to the project area and there are no public service facilities in the direct impacts study area.

Local Economy

Construction of the Proposed Action would result in the following direct impacts on the local economy.

Generate Direct Economic Output

The Proposed Action would generate approximately 1,350 jobs during the construction period. Construction of the Proposed Action is expected to occur over 6 years with the peak construction activity occurring in 2018. The employees would be derived primarily from the local and regional labor pool. Assuming construction expenditures of \$600 million, the Proposed Action would have a direct economic construction output of about \$232 million supporting about \$70 million in direct wages (Table 3.2-9).

Table 3.2-9. Direct Economic Impacts during Construction

Economic Impacts	Value
Jobs Total	1,350
Wages Total (in millions \$)	\$70
Output Total (in millions \$)	\$232
Notes: Source: BERK 2012	

Overall, the Proposed Action would have a positive short-term beneficial impact on the local and regional economies.

Generate Construction Sales and Business and Occupation Tax Revenues

Construction of the Proposed Action would generate state and local sales and use taxes and business and occupation (B&O) taxes. Construction activities are estimated to provide a one-time construction sales tax of \$5.87 million for Cowlitz County, which represents a 5% increase of the 2012 Cowlitz County revenue of \$107.8 million (BERK 2012). The state is estimated to receive just over \$37 million in state tax revenue.

Utilities

Construction of the Proposed Action is not anticipated to result in direct impacts on water and sewer service. Construction activities would use groundwater for dust suppression and would not affect water utility service. Construction practices would ensure that the water supply and sewer connections are not disrupted for surrounding users.

Affect BPA-Owned Parcels

As described in *Chapter 2, Project Objectives, Proposed Action, and Alternatives*, if the Applicant obtains easements from BPA, construction of the Proposed Action would affect two BPA-owned parcels in the project area.³ The Applicant would coordinate with BPA on potential impacts on BPA infrastructure to minimize adverse impacts.

Minority and Low-Income Populations

Direct impacts resulting from construction of the Proposed Action would be temporary and limited to the project area and the immediate vicinity (for example, construction noise directly affecting nearby residences). As discussed above, the nearest residences in minority or low-income communities in the direct impacts study area are located approximately 1 mile from the project area. Because of the distance between the project area and identified minority and low-income communities, the direct construction impacts of the Proposed Action would not affect minority or low-income communities at a rate that would appreciably exceed the rate to the general population. Therefore, the analysis concluded that the direct impacts resulting from construction of the Proposed Action would not have a disproportionately high and adverse effect on minority and low-income communities.

³ This impact would occur if BPA grants an easement to the Applicant prior to construction of the Proposed Action. The impact would not occur if BPA sells the land to the Applicant prior to construction.

Construction—Indirect Impacts

Construction-related activities associated with the Proposed Action would result in indirect impacts as described below.

Social and Community Cohesion and Public Services

As described in Chapter 2, *Project Objectives, Proposed Action, and Alternatives*, construction materials would be delivered to the project area by truck or rail (truck scenario and rail scenario). As described in Chapter 5, Section 5.3, *Vehicle Transportation*, construction activities would not adversely affect vehicle delay at grade crossings on the Reynolds Lead, BNSF Spur, and BNSF main line because average vehicle delay would not substantially change during construction, except during the peak traffic hour at two public at-grade crossings on the Reynolds Lead under the rail scenario. However, this vehicle delay impact would only occur if a Proposed Action-related construction train (average of 1.3 trains per day) passes during the peak traffic hour. Therefore, construction of the Proposed Action would have negligible impacts on social and community cohesion and access to public services.

Local Economy

Construction activity can disrupt local businesses with increased traffic, noise, dust, and other indirect impacts. Because the Proposed Action would have negligible vehicle delay impacts during construction, impacts on local business access would be negligible as well. As described in Chapter 5, Section 5.5, *Noise and Vibration*, delivery of construction materials by rail would increase noise levels but would not cause significant adverse noise impacts. As described in Chapter 5, Section 5.6, *Air Quality*, Proposed Action-related construction trucks and trains would not significantly adversely affect air quality during construction and dust from construction activities would be limited to the project area. Therefore, construction of the Proposed Action would have negligible indirect impacts on local business activity.

Construction of the Proposed Action would have the following indirect impacts on the local economy.

Generate Indirect Economic Output

As shown in Table 3.2-10, construction of the Proposed Action would require approximately 1,350 direct jobs, which could generate an additional 1,300 indirect and induced local and regional jobs during construction with approximate wages of \$65 million and an additional economic output of \$203 million (BERK 2012). Input-output models used to estimate the impacts of total wages over multiple years provide estimates of jobs in terms of job-years. Therefore, 1,300 indirect and induced jobs resulting from construction wage expenditure over 5 years, is the equivalent of 260 job positions held for the 5-year duration of construction.⁴ For example, if construction employment expenditures of \$70 million were to be spent uniformly over 5 years (\$14 million per year), the model indicates that the equivalent of 260 positions would be created in the local economy, and could employ those people for 5 years.

⁴ The economic and fiscal impact study prepared by BERK for the Proposed Action used a 5-year construction duration for its assessment of economic impacts during the construction period.

Table 3.2-10. Indirect Economic Impacts during Construction

Impacts	Value
Jobs Total ^a	1,300
Wages Total (in million \$)	\$65
Output Total (in million \$)	\$203
Notes:	
Source: BERK 2012	

Utilities

Demand for water and sewer utility services during construction of the Proposed Action would be confined to activities in the project area. Construction of the Proposed Action would not result in new indirect demands on water supply, sewer utility services, or wastewater treatment. Therefore, construction of the Proposed Action would not result in indirect impacts on utilities.

Minority and Low-Income Populations

As noted above, the assessment of disproportionately high and adverse effects on minority and low-income communities focused on potential impacts related to aesthetics, light, and glare; cultural resources; fish; geology and soils; groundwater; noise and vibration; and vehicle transportation. The Proposed Action would not result in indirect construction impacts in any of these resource areas except vehicle transportation. Construction of the Proposed Action would result in an indirect impact related to increased vehicle delay from construction rail traffic. The vehicle delay impacts would only occur if a Proposed Action-related construction train (average of 1.3 trains per day) travels during the peak traffic hour and would be temporary (limited to the peak traffic hour during the construction period). Vehicle delay impacts would affect roadway users during the peak traffic hour, which would include minority and low-income populations as well as non-minority and non-low-income populations. Therefore, vehicle delay impacts are not likely to affect minority or low-income communities at a rate that would appreciably exceed the rate to the general population. Therefore, the analysis concluded that the indirect impacts resulting from construction of the Proposed Action would not have a disproportionately high and adverse effect on minority and low-income populations.

Operations—Direct Impacts

Operation of the Proposed Action would result in the following direct impacts. Operations-related activities are described in Chapter 2, *Project Objectives, Proposed Action, and Alternatives*.

Social and Community Cohesion and Public Services

Operation of the Proposed Action would not divide or isolate neighborhoods because operations would be confined to the project area, nor would it lead to the displacement of substantial portions of the existing community. Operations also would not physically displace or alter any public service facility, but it would place new demands on fire protection services, as discussed below.

Place New Demands on Fire Protection Services

The Proposed Action would place new demands on Cowlitz Fire & Rescue protection services. Required fire and life safety systems would be installed in the project area according to fire code

standards. These systems would be regularly inspected and maintained. The Applicant would also maintain a surface water storage pond with a reserve of 0.36 million gallons for fire suppression.

Local Economy

The following direct impacts on the local economy related to operation of the Proposed Action have been identified.

Generate Direct Economic Output

Operation of the Proposed Action would generate direct economic benefits based on the Applicant's expected staffing and expenditure plan. At full operation, the coal export terminal would employ 135 people, which would include terminal administrative staff (25), waterfront staff (30), and terminal upland staff (80).

Total direct output at full buildout would be about \$49 million supporting about \$16 million in wages (BERK 2012). Unemployed and underemployed workers in the manufacturing industry could potentially fill the new jobs generated by the Proposed Action (Table 3.2-11).

Table 3.2-11. Direct Economic Output during Operations

Impacts	Value
Jobs Total	135
Wages Total (in millions \$)	\$16
Output Total (in millions \$)	\$49

Notes:
Source: BERK 2012

The wage information used in this analysis provided by the Applicant relies on wage data based on the International Longshore and Warehouse Union average salaries for the entire West Coast. Wages in Cowlitz County would likely be lower than the West Coast averages used in the economic impact analysis and overall economic impacts would also be lower. For instance, the economic impact analysis assumed wages of approximately \$130,000 per employee, including benefits, such as the employer-paid portion of social security and health insurance (BERK 2012). This is not representative of actual wages likely at the coal export terminal and likely overstates the economic output of the Proposed Action.

For comparison, the average annual wage for workers in transportation and material moving occupations, which is similar to the type of occupational employment that would be created by the Proposed Action, was \$38,730 in Cowlitz County in 2014 according to the U.S. Bureau of Labor Statistics State Occupational Employment and Wage Estimates for Washington State.

Generate Tax Revenues

Operation of the Proposed Action would generate property taxes, combined state and local sales and use taxes, and B&O taxes. The greatest share of state, county, and special purpose district taxes would be generated by property taxes. Operation of the Proposed Action is estimated to generate an annual average of \$1.65 million in Cowlitz County revenue and a 30-year present value of \$32.37 million in tax revenues. At the state level, operation of the Proposed Action is

estimated to generate an annual average of \$2.18 million and a 30-year present value of \$41.77 million in tax revenues. County taxes are shared with cities, allocated on the basis of population. Local taxes have historically been spent primarily on schools, roads, and emergency services, all of which have the potential for direct or indirect positive impacts on public health and safety.

A more detailed discussion of potential tax revenues from operation of the Proposed Action is provided in the *SEPA Social and Community Resources Technical Report*.

Utilities

The Proposed Action would directly affect water and sewer utilities and electrical utilities. Operation of the Proposed Action would result in the following direct impacts.

Affect BPA-Owned Parcels

As described in *Chapter 2, Project Objectives, Proposed Action, and Alternatives*, if the Applicant obtains an easement from BPA, operation of the Proposed Action would be located on two BPA-owned parcels within the project area. The Applicant would coordinate with BPA to minimize adverse impacts.⁵

Create New Sanitary Sewage Flows

As described in Section 3.2.4.3, *Utilities*, the sanitary sewer collection and treatment system serving the project area and the Applicant's leased area has been permitted and replaced with a new collection system and connection to the Longview sewer system. A new sanitary sewer conveyance system and connection to the Longview sewer system would be developed under the Proposed Action. New sanitary sewer flows from the Proposed Action would be small. The Three Rivers Wastewater Treatment Plant has sufficient capacity to treat additional wastewater flows generated by the Proposed Action. The Applicant would be required to obtain a permit to discharge wastewater, as described in Section 3.2.6, *Required Permits*.

The Proposed Action would not convey industrial process wastewater to the Longview sewer system or the Three Rivers Wastewater Treatment Plant. Industrial process wastewater would be treated in the on-site water treatment facility, used on site, and would not add new demands to public sewer and wastewater utilities.

Create New Water Demand

The Proposed Action would use potable municipal water supplies for domestic uses such as drinking, sinks, and toilets. The Proposed Action would not use potable water supplies for industrial needs. Therefore, the Proposed Action would result in a small increase in demand for potable water.

Non-potable water would be used for industrial processes such as dust control, stockpile sprays, wash down, clean up, and fire protection. This water would be supplied by treated water from the proposed water management system and storage ponds and supplemented by wells during dry seasons. Therefore, the industrial water use would not place substantial new demands on the Longview water supply.

⁵ This impact would occur if BPA grants an easement to the Applicant prior to construction of the Proposed Action. The impact would not occur if BPA sells the land to the Applicant prior to construction.

Minority and Low-Income Populations

Direct impacts resulting from operation of the Proposed Action would be limited to the project area and the immediate vicinity (for example, operational noise directly affecting adjacent residences). As discussed above, the nearest residences in minority or low-income communities within the direct impacts study area are located approximately 1 mile from the project area. Because of the distance between the project area and identified minority and low-income communities, the direct impacts of the Proposed Action during operations would not likely have the potential to affect minority or low-income communities at a rate that would appreciably exceed the rate to the general population. Therefore, the analysis concluded that the direct impacts resulting from operation of the Proposed Action would not likely have a disproportionately high and adverse effect on minority and low-income populations.

Operations—Indirect Impacts

Operation of the Proposed Action would result in the following indirect impacts.

Social and Community Cohesion and Public Services

Operation of the Proposed Action would result in the following indirect impacts on social and community cohesion, and public services.

Affect Accessibility to Community Resources and Public Services

As described in Chapter 5, Section 5.3, *Vehicle Transportation*, Proposed Action-related trains would not adversely impact daily average vehicle delay at public at-grade crossings on the Reynolds Lead, BNSF Spur, and BNSF main line because average vehicle delay would not change substantially. Peak traffic hour vehicle delay would also not be adversely affected if track improvements are made to the Reynolds Lead and BNSF Lead (as described in Chapter 5, Section 5.1, *Rail Transportation*)⁶ and only one Proposed Action-related train travels during the peak traffic hour. Therefore, under these scenarios, accessibility to social and community resources and public services would not change substantially under the Proposed Action.

However, if two Proposed-Action trains travel during the peak traffic hour, or infrastructure improvements are not made to the Reynolds Lead and BNSF Spur (as described in Chapter 5, Section 5.1, *Rail Transportation*), vehicle delay would substantially change at selected public at-grade crossings along the Reynolds Lead, BNSF Spur, and BNSF main line during the peak traffic hour. (See Chapter 5, Section 5.3, *Vehicle Transportation* for the identification of crossings and discussion of vehicle delay impacts.) These vehicle delay impacts would be temporary (limited to the peak traffic hour), and the probability for two trains to pass during the peak vehicle traffic hour would be low. Under these scenarios, Proposed Action-related trains would adversely affect the accessibility to community resources and public services at selected public at-grade crossings on the Reynolds Lead, BNSF Spur, and BNSF main line.

⁶ The owner of the Reynolds Lead and BNSF Spur has indicated that track improvements would be made, but these plans have not been submitted or permitted.

Increase Noise Levels in Archie Anderson Park, Highlands Trail, and Gerhart Gardens Park

Proposed Action-related trains would increase rail traffic-related noise levels in Archie Anderson Park, along the Highlands Trail, and in Gerhart Gardens Park, all of which are located within 1,000 feet of the Reynolds Lead or BNSF Spur. The increased noise levels could reduce the attractiveness of the features in these parks that are more sensitive to increased noise levels, such as picnic facilities and sitting areas. Archie Anderson Park, the Highlands Trail, and Gerhart Gardens also include features that are not particularly sensitive to increased noise levels (e.g., facilities that are used for sports, exercise, or active play), such as walking and running trails, baseball fields, and basketball courts.

Increased noise levels would occur because Proposed Action-related trains would be required to sound their horns for public safety at grade crossings per Federal Railroad Administration (FRA) regulations.

Local Economy

The following direct impacts on the local economy related to operation of the Proposed Action have been identified.

Generate Indirect Economic Output

The Proposed Action would result in economic and fiscal benefits to the local area, Cowlitz County, and Washington. There would be benefits beyond the project area because the coal export terminal would support ship networks that operate on the Columbia River and rail networks in Washington State.

As illustrated in Table 3.2-12, operation of the Proposed Action would generate approximately 135 jobs. These jobs would generate an additional 165 indirect and induced local and regional jobs with approximate wages of \$9 million and total economic output of \$21 million.

Table 3.2-12. Indirect and Induced Economic Output during Operations

Operations Impact (Full Buildout)	Value
Indirect and Induced total ^a	165
Wages Total (in millions \$)	\$9
Output Total (in millions \$)	\$21

Notes:

^a Indirect and induced jobs, wages, and total output were calculated using estimated multipliers from the Washington State Input-Output model.

Source: BERK 2012

Affect Local Business Activity

The previous section describes how Proposed Action-related trains would affect vehicle delay at at-grade crossings on the Reynolds Lead, BNSF Spur, and BNSF main line. This vehicle delay could affect accessibility to local businesses during the peak traffic hour without track infrastructure improvements to the Reynolds Lead and BNSF Spur, or if two Proposed Action-related trains travel during the peak traffic hour. As described in Chapter 5, Section 5.5, *Noise*

and Vibration, Proposed Action-related trains would increase noise levels but would not cause adverse noise impacts on businesses because the applicable noise criteria only applies to noise-sensitive land uses, such as residences. As described in Chapter 5, Section 5.6, *Air Quality*, Proposed Action-related trains would not adversely affect air quality during operations. Therefore, operations of the Proposed Action would have negligible indirect impacts on local business activity. Overall, increased vehicle delay from Proposed Action-related rail traffic would be unlikely to affect business activities substantially, especially if the planned track improvements to the Reynolds Lead and BNSF Spur are implemented, as described in Chapter 5, Section 5.1, *Rail Transportation*.

Utilities

Operation of the Proposed Action would not result in indirect impacts on water and sewer utilities because demand for these utilities would be limited to the project area.

Minority and Low-Income Populations

The Proposed Action's indirect impacts during operations were evaluated for their potential to result in disproportionately high and adverse effects on minority and low-income communities in the *SEPA Social and Community Resources Technical Report*. Except for the impact related to horn noise from Proposed Action-related trains on the Reynolds Lead during operations, the assessment concluded that the Proposed Action's indirect impacts would not affect minority or low-income communities at a rate that would appreciably exceed the rate to the general population, nor would they contribute to cumulative exposures to environmental hazards. The analysis concluded that horn noise from Proposed Action-related trains on the Reynolds Lead during operations would have a disproportionately high and adverse effect on minority and low-income populations. Mitigation measures are discussed in the mitigation section below.

Indirect noise impacts would occur because Proposed Action-related trains would be required to sound their horns for public safety at grade crossings per FRA regulations, and noise levels would exceed applicable criteria at adjacent land uses near four at-grade crossings on the Reynolds Lead (Chapter 5, Section 5.5, *Noise and Vibration*). Because there are minority and low-income communities adjacent to the Reynolds Lead (Figure 3.2-4),⁷ the Proposed Action would have a disproportionately high and adverse effect on minority and low-income populations if no measures were implemented to mitigate this indirect noise impact. As described in Chapter 5, Section 5.5, *Noise and Vibration*, indirect noise impacts from Proposed Action-related trains on the BNSF main line in Cowlitz County would not be expected, and therefore, the Proposed Action would not likely have a disproportionately high and adverse effect on minority and low-income populations along the BNSF main line in Cowlitz County.

3.2.5.2 No-Action Alternative

Under the No-Action Alternative, the Applicant would not construct the coal export terminal. The Applicant would continue with current and future increased operations in the project area. The project area could be developed for other industrial uses including an expanded bulk product terminal or other industrial uses. The Applicant has indicated that, over the long term, it would

⁷ There are approximately 242 residences located in Census Tract 3 Block Group 1, Census Tract 5.02 Block Group 1, and Census Tract 5.02 Block Group 2. All of these census block groups have been identified as minority and/or low-income communities.

expand the existing bulk product terminal and develop new facilities to handle more products such as calcine petroleum coke, coal tar pitch, and cement.

Social/Community Cohesion and Public Services

Construction activity under the No-Action Alternative would not result in direct impacts on social and community cohesion or public services. Construction activities would be limited to the project area, and therefore, would not divide or isolate neighborhoods or disrupt community cohesion.

Operation of the No-Action Alternative would not divide or isolate neighborhoods because any new facilities would be constructed on an existing industrial site within a wide corridor of similar industrial uses, and operations would not physically displace or alter any public service facility. Therefore, operation of the No-Action Alternative would not result in direct impacts on social and community cohesion and public services.

Operation of the No-Action Alternative would not result in indirect impacts on social and community cohesion as a result of changes to property values or by generating substantial new development. The No-Action Alternative is located on an existing industrial site within a larger industrial area, and would use an existing freight rail line. Therefore, operation of the No-Action Alternative would not constitute a new land use with the potential to change property values substantially or induce new development in the surrounding area. In addition, the No-Action Alternative would not result in the introduction of a new population that could place demands on public service providers. The No-Action Alternative would not be expected to affect vehicle delay, and therefore, would not affect social and community cohesion and public services.

Local Economy

With the No-Action Alternative, the economic and fiscal benefits of the Proposed Action to the local area, Cowlitz County, and Washington would not be realized. However, construction and operation of the No-Action Alternative would likely result in new jobs (in addition to the 30 jobs at the existing bulk product terminal), which would generate additional direct, indirect, and induced wages and economic output. Construction and operation of the No-Action Alternative would also generate sales tax, B&O tax, and property tax revenue to the county and state. The No-Action Alternative would result in fewer new jobs and correspondingly lower new wages, output, and tax revenue.

Approximately two additional No-Action Alternative-related trains per day would travel on the Reynolds Lead. The increased rail traffic under the No-Action Alternative would not substantially increase vehicle delay. Therefore, the No-Action Alternative would not affect business activities substantially.

Utilities

Construction of the No-Action Alternative is not anticipated to result in direct impacts on water and sewer service. Operation of the No-Action Alternative could result in new sanitary sewage flows and new water demand from the project area. The Three Rivers Wastewater Treatment Plant has sufficient capacity to treat additional wastewater flows, and it is expected that any new demand for potable water would be small compared to the capacity of the Longview water supply. Water used for industrial purposes, such as dust control, would continue to be drawn from stormwater ponds and supplemented with groundwater well withdrawals during dry periods.

Minority and Low-Income Populations

The No-Action Alternative would increase rail operations along the Reynolds Lead as described in Chapter 2, Section 2.3, *No-Action Alternative*. Noise levels under the No-Action Alternative would be higher than under existing conditions, but would not result in noise impacts, as described in Section 5.5, *Noise and Vibration*. Effects on other environmental resource areas under the No-Action Alternative would generally be similar to or less than impacts under the Proposed Action. Therefore, the No-Action Alternative would not have disproportionately high and adverse effects on minority and low-income populations.

3.2.6 Required Permits

The Proposed Action would require the following permits.

- **Wastewater Discharge Permit—Three Rivers Regional Wastewater Authority.** This permit would be required to discharge wastewater to the Three River Regional Wastewater Treatment Plant. A survey form would be completed first to allow the Three Rivers Regional Wastewater Authority to determine whether a permit is required.
- **Utility Service Permit—City of Longview.** The project area receives potable water from the City of Longview through a connection on Industrial Way. This permit would be required to receive water service and to convey wastewater flows via the City of Longview's system.

3.2.7 Potential Mitigation Measures

This section describes the mitigation measures that would reduce impacts on social and community resources from the construction and operation of the Proposed Action. These mitigation measures would be implemented in addition to project design measures, best management practices, and compliance with environmental permits, plans, and authorizations that are assumed as part of the Proposed Action.

3.2.7.1 Voluntary Mitigation

The Applicant has committed to implementing the following measures to mitigate impacts on social and community resources.

- To reduce rail noise along the Reynolds Lead, the Applicant will work with Longview Switching Company and other stakeholders to convert the Oregon Way and Industrial Way crossings to "quiet crossings." The Applicant will fund additional electronics, barricades, and crossing gates to convert the crossings to "quiet crossings."
- Prior to beginning operations, the Applicant will prepare a fire response plan and submit the plan to the Cowlitz County Fire Marshal for review and approval.
- The Applicant will feed the firewater system from on-site wells, filling a 4-hour storage tank as recommended by Chapter 7 of the National Fire Protection Association 307 Standard for the Construction of Fire Protection of Marine Terminals, Piers, and Wharves.

3.2.7.2 Applicant Mitigation

Chapter 5, Section 5.5, *Noise and Vibration*, identifies mitigation measure NV-2 (MM NV-2) to coordinate with LVSW, Cowlitz County, and the affected community to inform interested parties on the FRA process to implement a Quiet Zone that will include the 3rd Avenue and California Avenue crossings on the Reynolds Lead. Proposed Action-related trains would not need to sound horns as they approach the at-grade crossings with a Quiet Zone. A Quiet Zone is subject to FRA approval. If approved by FRA, this measure would reduce noise levels at Archie Anderson Park and along the Highlands Trail. It would also eliminate the disproportionately high and adverse noise effects on minority and low-income populations.

If FRA does not approve the Quiet Zone for the Reynolds Lead, the Applicant will fund a sound-reduction study to identify ways to mitigate the moderate and severe noise impacts from Proposed Action-related train noise along the Reynolds Lead (mitigation measure NV-3 in Chapter 5, Section 5.5, *Noise and Vibration*). If effective measures are identified and implemented, this mitigation measure may reduce but would not eliminate the disproportionately high and adverse noise effects on minority and low-income populations.

3.2.8 Unavoidable and Significant Adverse Environmental Effects

Implementation of the voluntary and applicant mitigation measures identified above would reduce impacts on social and community resources and minority and low-income populations. There would be no unavoidable and significant adverse environmental impacts on social and community cohesion and public services, the local economy, or utilities.

Implementation of the Proposed Action would increase rail traffic that would increase noise levels along the Reynolds Lead and BNSF Spur in Cowlitz County. The increased noise levels from 16 Proposed Action-related trains per day would expose noise-sensitive receptors to moderate and severe noise impacts per applicable criteria. Because the area along the Reynolds Lead where the indirect noise impacts would occur is a minority and low-income community (Figure 3.2-4), this analysis concludes that the Proposed Action would have a disproportionately high and adverse effect on minority and low-income populations. If FRA approves the Quiet Zone as described previously, the Proposed Action would not have a disproportionately high and adverse effect on minority and low-income populations. However, without approval and implementation of a Quiet Zone, the Proposed Action's disproportionately high and adverse effect on minority and low-income populations would be unavoidable.

3.2.9 Public Outreach and Participation Process

Cowlitz County and the Washington State Department of Ecology (Ecology) engaged in a robust public outreach effort. The primary components of this effort were two formal comment periods required by the State Environmental Policy Act (SEPA): 1) the scoping phase comment period, and 2) the Draft Environmental Impact Statement (Draft EIS) comment period. A public involvement plan developed for the SEPA process guided the public outreach effort.

Population demographics regarding minority status and limited English proficiency also informed the public outreach effort. Table 3.2-13 shows the percentage of the population over age 5 with limited English proficiency in the social and community cohesion direct impacts study area,

Longview, and Cowlitz County. In all three areas, a low percentage of the population over age 5 has limited English proficiency; approximately 3% of the population of the direct impacts study area, the City of Longview, and Cowlitz County have limited English proficiency.

Table 3.2-13. 2013 Limited English Proficiency

Area	Population Age 5 and Over	Population Age 5 and Over with Limited English Proficiency ^a	Percentage Population with Limited English Proficiency ^a
Social and Community Cohesion Direct Impacts Study Area ^b	2,754	90	3.3
Longview	34,354	1,194	3.5
Cowlitz County	95,579	2,939	3.1

Note:

^a Limited English proficiency includes individuals who speak English less than very well (defined as “well,” “not well,” or “not at all” in Census data.

^b The project area and within 0.5 mile of the project area.

Source: U.S. Census Bureau ACS 2009–2013 5-year estimates.

Table 3.2-14 shows the minority percentage of the population in the minority and low-income direct and indirect impacts study areas, City of Longview, and Cowlitz County. As shown, both the direct and indirect impacts study areas and the City of Longview have higher percentages of minority population than Cowlitz County.

Table 3.2-14. 2013 Minority Status

Census Block Group	2013 Total Population	Percent Minority ^a
Direct Impacts Study Area Census Block Groups ^b	6,782	18.7
Indirect Impacts Study Area Census Block Groups ^c	45,371	17.1
Longview	36,656	18.4
Cowlitz County	102,110	14.6

Notes:

^a Minority status includes individuals defined in the census as any race or ethnicity other than white alone and not Hispanic or Latino.

^b Census Block Groups within 1 mile of the project areas.

^c Census Block Groups within 0.5 mile of affected rail lines in Cowlitz County.

Source: U.S. Census Bureau ACS 2009–2013 5-year estimates.

Prior to the scoping meeting, stakeholder interviews were conducted to guide planning for the scoping process. These interviews were conducted with stakeholders representing a diverse range of interests and demographics including city and county jurisdictions, environmental and conservation groups, landowner organizations, labor organizations, economic development and business organizations, port authorities, river pilots, and local community groups. A project website was also developed (www.millenniumbulkeis.wa.gov) providing information in English and Spanish. This website serves as an information hub, a public-comment portal, and a document review and download repository throughout development of this Draft EIS. The website was promoted in news releases, ads in local media, and printed project information.

The public scoping meetings were announced in various publications. Notices were published in the *Federal Register* and *Washington State Register*, and the co-lead agencies also issued a press release. Display ads were placed in local newspapers where scoping meetings were held, including *The Spokane Spokesman-Review*, *The Tri-City Herald* (Pasco), *The Columbian* (Vancouver/Clark County), *The Longview Daily News*, and *The Tacoma News-Tribune*. Announcements were also sent to a listserv group consisting of parties who have requested to be informed about project activities, and an informational flyer was mailed to 6,000 residents in neighborhoods near the project area, including the Highlands neighborhood in Longview. A Spanish translation of the informational flyer was also distributed.

Cowlitz County and Ecology held five scoping meetings to receive SEPA-related scoping comments. Scoping meetings were held on the following dates and locations.

- September 17, 2013, in Longview
- September 25, 2013, in Spokane
- October 1, 2013, in Pasco
- October 9, 2013, in Ridgefield
- October 17, 2013, in Tacoma

All meetings used an open-house format to provide process information for the Draft EIS and details about the Proposed Action, and to receive comments on the scope of the Draft EIS. In total, the co-lead agencies received over 217,500 scoping comments. Spanish-language handouts and Spanish translation services were available at each meeting. All facilities were Americans with Disabilities Act-accessible.

Cowlitz County and Ecology will hold three public hearings to receive comments on the Draft EIS. The public hearings will be held at the following dates and locations.

- May 24, 2016, in Longview
- May 26, 2016, in Spokane
- June 2, 2016, in Pasco

The public outreach program, including outreach to minority, low-income populations, and persons with limited English proficiency is ongoing throughout the environmental review process in accordance with applicable regulations. More information about public outreach can be found in Chapter 7, *Public Involvement and Agency Coordination*, of this Draft EIS.