

## 3.13 Social Elements

Because WSDOT affirms the state's commitment to protecting and preserving its citizens' health and safety, this section assesses how the project might affect social elements in the communities near the build alternative sites. To understand the social costs and benefits associated with the proposed SR 520 Pontoon Construction Project, WSDOT must consider how a project could affect the surrounding communities.

### Has any new information been developed since the Draft EIS?

No new issues related to social elements were introduced. In response to comments received on the Draft EIS, the study area for low-income and/or minority populations was expanded to one-half-mile radius around the alternative sites. This change did not result in new conclusions regarding project effects on low-income and/or minority populations.

### What are the laws and regulations that apply to the social elements analysis?

This analysis considers laws and regulations that apply to minority, low-income, limited-English-proficient, disabled, and elderly populations. Community factors include the cohesiveness of the neighborhoods; social, recreational, and civic elements; and established travel behaviors. Applicable laws and regulations include NEPA, Title VI of the Civil Rights Act of 1964; the Civil Rights Restoration Act of 1987; Executive Order 12898 Environmental Justice; USDOT Environmental Justice Order (DOT Order 5610.2); Executive Order 13166 Limited English Proficiency; the Americans with Disabilities Act; the Age Discrimination Act of 1975; and the Transportation Equity Act.

Through their respective comprehensive plans, zoning, and city codes that direct what type of land uses and development can occur within the city limits, the City of Tacoma has jurisdiction over the CTC facility, the City of Hoquiam has jurisdiction over the Anderson & Middleton site, and the City of Aberdeen has jurisdiction over the Aberdeen Log Yard site. These plans and codes help to protect the residents and community resources by preventing incompatible uses from being located near each other. As discussed in detail in Section 3.12, Land Use, the cities' development plans on and around the build alternative sites are for industrial development. For information related to the area's public services and utilities, please see Section 3.11, Public Services and Utilities.

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#### What is the Social Elements Technical Memorandum?

The Appendix O, Social Elements Technical Memorandum, has detailed information on social elements and their potential project effects, as well as a complete list of social resources.

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#### What social elements are considered in this analysis?

Social elements include community cohesion; population characteristics (including limited English proficient populations); environmental justice populations (minority and low-income populations); regional and community growth; community resources; recreational resources; and pedestrian, bicyclist, and transit resources.

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## What social elements are in the study area?

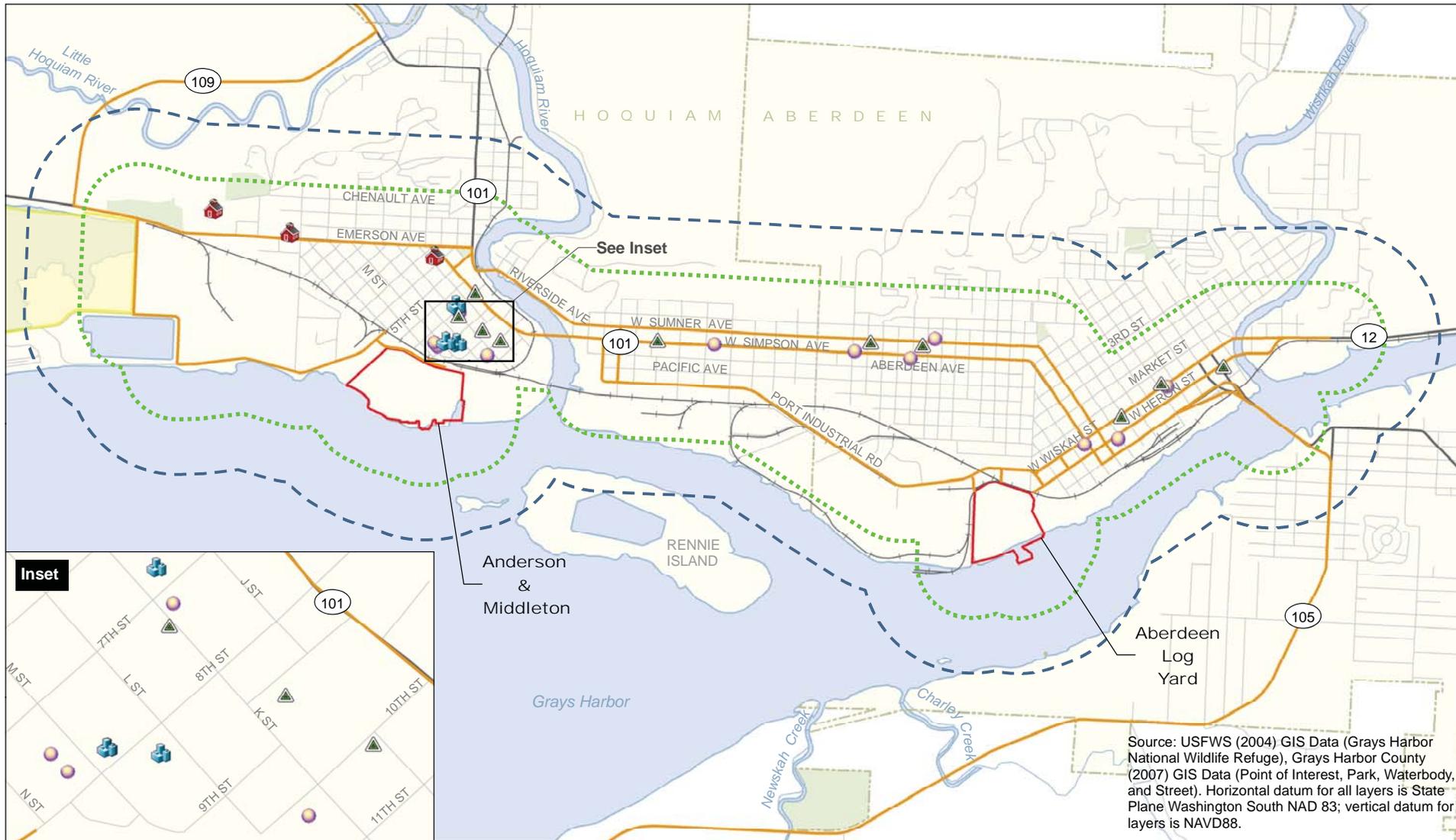
For the CTC facility, which is near the center of the Port of Tacoma industrial area, the social elements study area is a one-quarter-mile radius around the facility. For the Grays Harbor build alternatives, the study area for most analyzed social elements is a one-quarter-mile radius around each build alternative site. WSDOT used a one-half-mile radius around each site to determine the presence of concentrations of low-income and minority populations (see Exhibit 3.13-1).

### CTC Facility

The CTC facility is located within an approximately 3-square-mile area zoned as an industrial center on the Blair Waterway in Tacoma (Exhibit 3.13-2). The area is associated with the Port of Tacoma, which covers more than 2,400 acres and is one of the largest container ports in North America. The Port is a major employment center for the region and has been since its creation in 1912. The industrial area where the CTC site is located is fairly isolated from other land uses, including residential and social resources and services land uses, in its vicinity. People travel into this industrial area for work and then return to homes and services in their neighborhoods away from and not connected to this area.

The closest residential properties to the CTC facility are to the north and across the Hylebos Waterway, outside of the study area and to the southeast across SR 509 (see Exhibit 3.13-2). There are no schools, churches, or other social resources in the vicinity of the CTC facility. There are no low-income or minority residents within the isolated Tacoma tideflats area, which contains the Port of Tacoma. There are a few blocks of residences south of SR 509, but this pocket of residences is not near the CTC facility and, according to the 2000 census data, most of these residences have been adjacent to SR 509 and the industrial activities in this region for over 20 years.

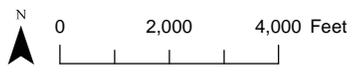
The CTC facility does employ people, so using the CTC site for this project would likely maintain the current level of employment at the facility and possibly could create a few jobs if the facility staff needs to increase for this project.



Source: USFWS (2004) GIS Data (Grays Harbor National Wildlife Refuge), Grays Harbor County (2007) GIS Data (Point of Interest, Park, Waterbody, and Street). Horizontal datum for all layers is State Plane Washington South NAD 83; vertical datum for layers is NAVD88.



- Education facility
- Government institution
- Religious facility
- Social institution
- Potential haul route
- Grays Harbor National Wildlife Refuge
- Park
- Social resources study area
- Low-income/minority population study area
- Build Alternative Site
- City limits



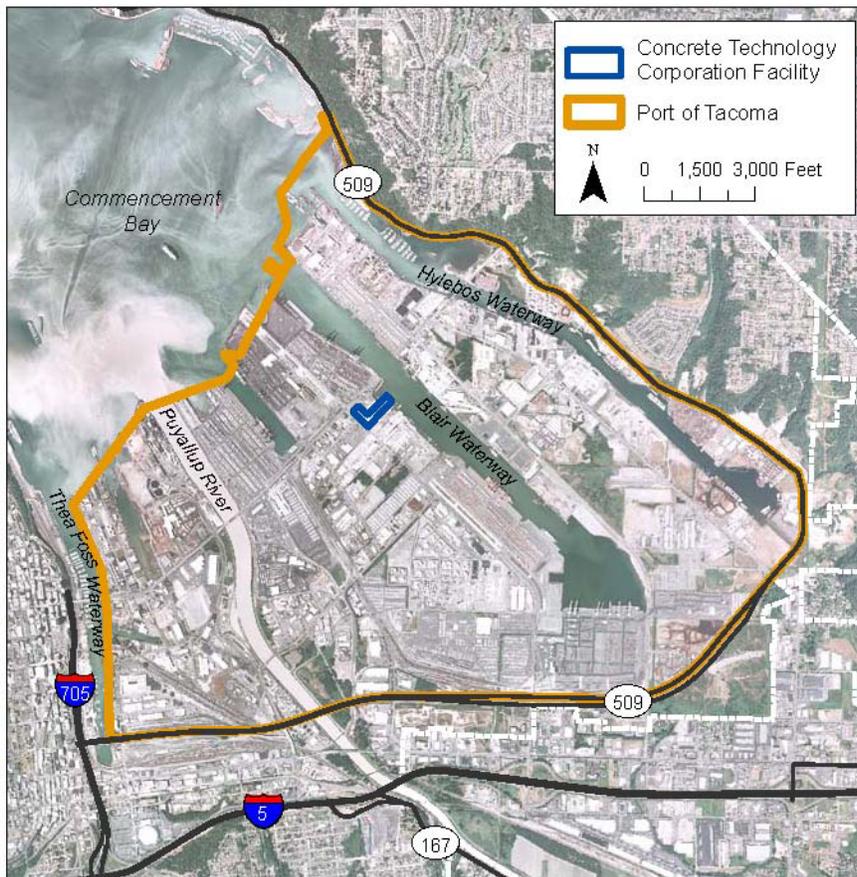
**Exhibit 3.13-1. Grays Harbor Social Elements Study Area**

SR 520 Pontoon Construction Project



## EXHIBIT 3.13-2

## Aerial View of the Port of Tacoma Industrial Area



Source: USDA-FSA (2006) Aerial Photo

## Aberdeen Log Yard Alternative (Preferred Alternative)

### Features Contributing to Community Cohesion

At the Aberdeen Log Yard site, the Puget Sound & Pacific Railroad acts as a boundary between the industrial-related land uses along Grays Harbor and the residential area to the north in Aberdeen. The area north of the industrial area and the Aberdeen Log Yard site is mostly single-family residences, with no community resources, services, or gathering places for the residents to interact. This area has a grid street system, providing local links and access to community and social resources outside the study area.

The proposed haul routes for this alternative include portions of West State Street, US 101, and SR 12. The latter two routes, which are known locally as West Wishkah Street and West Heron Street, respectively, provide connections with the other cities in Grays Harbor County and

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### What is community cohesion?

Community cohesion is the ability of people to communicate and interact with each other in ways that lead to a sense of community, as reflected in the neighborhood's ability to function and be recognized as a singular unit. The physical characteristics of an area, such as sidewalks and land uses, contribute to community cohesion.

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beyond. Several community resources are located next to the proposed haul route for this alternative, including community services and religious institutions.

The Aberdeen Log Yard study area is primarily industrial in nature and is not an area where residents go for social activities or recreation. There are no social gathering places, such as parks, cafes, or libraries, to provide this area with a neighborhood feel, nor is the study area located in the middle of an active neighborhood. In short, the community cohesion in this study area is low.

### General Populations Characteristics

To assess current population characteristics, WSDOT used U.S. Census tract block group data within the study area and compared the study area population characteristics with Aberdeen and Grays Harbor County. WSDOT also reviewed recent public elementary school data for schools with attendance boundaries overlapping the study area. While students could live anywhere within a school's attendance boundary, the information is more recent than the 2000 U.S. Census data.

Aberdeen is the largest city in Grays Harbor County. The population has remained constant since 2000. In 2000, Aberdeen represented approximately 24.5 percent of the Grays Harbor County population; in 2008, it represented 23.2 percent.

Compared to Aberdeen overall and Grays Harbor County, the Aberdeen Log Yard Alternative study area population has a lower median age, a lower median household income, more households and individuals at or below the poverty level, and more households with no vehicles (U.S. Census Bureau 2000). This could indicate additional households with younger residents who depend more on transit and community resources. According to the 2000 U.S. Census, the average household size and percentage of the population including persons with a disability are about the same as Aberdeen and Grays Harbor County overall. The study area along the haul routes has more renter-occupied housing compared to owner-occupied housing; and more of the population is considered minority. The limited-English proficient population is slightly larger in the Aberdeen Log Yard study area than in the city of Aberdeen, approximately 8 percent and 4 percent respectively (U.S. Census Bureau 2000).

The percentage of disabled individuals in the study area is consistent with that of the City of Aberdeen, at about 25 percent, as is the elderly population (those over 65 years of age), which makes up about 14 percent of the Aberdeen population.

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#### What is a census tract?

A census tract is a geographic region defined for the purpose of taking a census. In the U.S., census tracts are subdivided into census block groups and census blocks.

#### What is a census block group?

A census block group is the smallest geographical unit for which the bureau publishes sample data (that is, data that are only collected from a fraction of all households). Census block groups are identified by a number, usually single digit. This number determines the first digit of all the census blocks, which compose the census block group. In urban areas, a census block group typically covers two to four city blocks.

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#### What is a minority population?

A minority population is any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed and/or transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed U.S. Department of Transportation program, policy, or activity (USDOT Order 5610.2, Appendix 1.e)

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### Minority and Low-Income Population Characteristics

Exhibits 3.13-3 and 3.13-4 depict the locations and concentrations of low-income and minority populations in the Grays Harbor study area, respectively. Minorities represent 20.5 percent of the study area population, which is higher than the minority population percentage for Aberdeen (17.6 percent) and higher than that for Grays Harbor County (13.6 percent). The low-income population of the study area is 26.3 percent, which is higher than for both Aberdeen (22.2 percent) and Grays Harbor County (16.1 percent) overall (U.S. Census Bureau 2000).

The Grays Harbor area is home to many Native American tribes. Specifically, the Quinault Indian Nation currently uses Grays Harbor for fishing as provided by treaty rights, and the study area in Grays Harbor is culturally important to both the Quinault Indian Nation and the Confederated Tribes of the Chehalis Reservation.

Most census blocks adjacent to the haul route have minority populations below 25 percent and low-income population concentrations between 25 to 50 percent. According to more recent information from A.J. West Elementary School in Aberdeen—which has an attendance boundary that crosses the study area and is located approximately 0.5 mile north of the nearest boundary of the Aberdeen Log Yard site—the minority and the low-income populations have increased since the 2000 Census (Common Core of Data 2009). At this school about 34 percent of the students are Hispanic; 4 percent Native American; 1.3 percent Asian; and 1.3 percent Black (OSPI 2010).

### Community and Social Resources

There are no community resources within the one-quarter-mile radius of the Aberdeen Log Yard study area, but there are six social resources next to one of the proposed haul routes (Exhibit 3.13-1): the Salvation Army Family Store, Aberdeen Community Services Office, Union Gospel Mission, Harbor Praise Center, Christian Cable Ministries, and Heritage Family Church.

### Recreational, Pedestrian, Bicycle, and Transit Facilities

No recreation facilities are in the immediate Aberdeen Log Yard Alternative study area or next to the proposed haul route. Like the Anderson & Middleton Alternative, no bicycle paths or lanes are in this study area, and Grays Harbor Transit provides bus service to the study area. Route 20 stops next to the site on Port Industrial Road, and three bus routes use one of the proposed haul routes.

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#### What defines low-income and low-income population?

Low-income is a household income that is at or below the federally designated poverty level for a given household size. For 2009 federal poverty levels see <http://aspe.hhs.gov/poverty/09poverty.shtml>.

A low-income population is any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed and/or transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed U.S. Department of Transportation program, policy, or activity. (USDOT Order 5610.2, Appendix 1.d).

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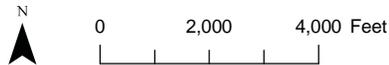
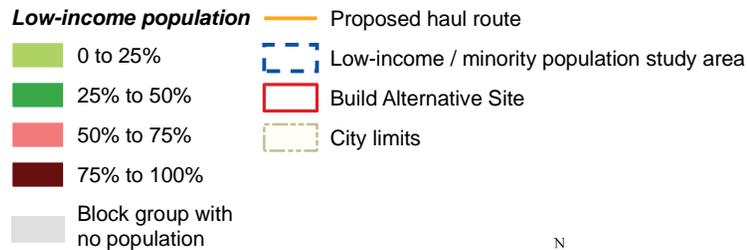
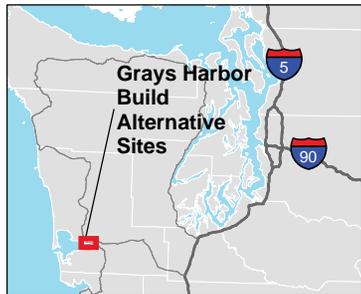
#### What is the threshold for limited-English proficient populations?

If demographics indicate that 5 percent or 1,000 persons or more in a study area (generally by census block group) speak a language other than English, project materials should be translated into that language.

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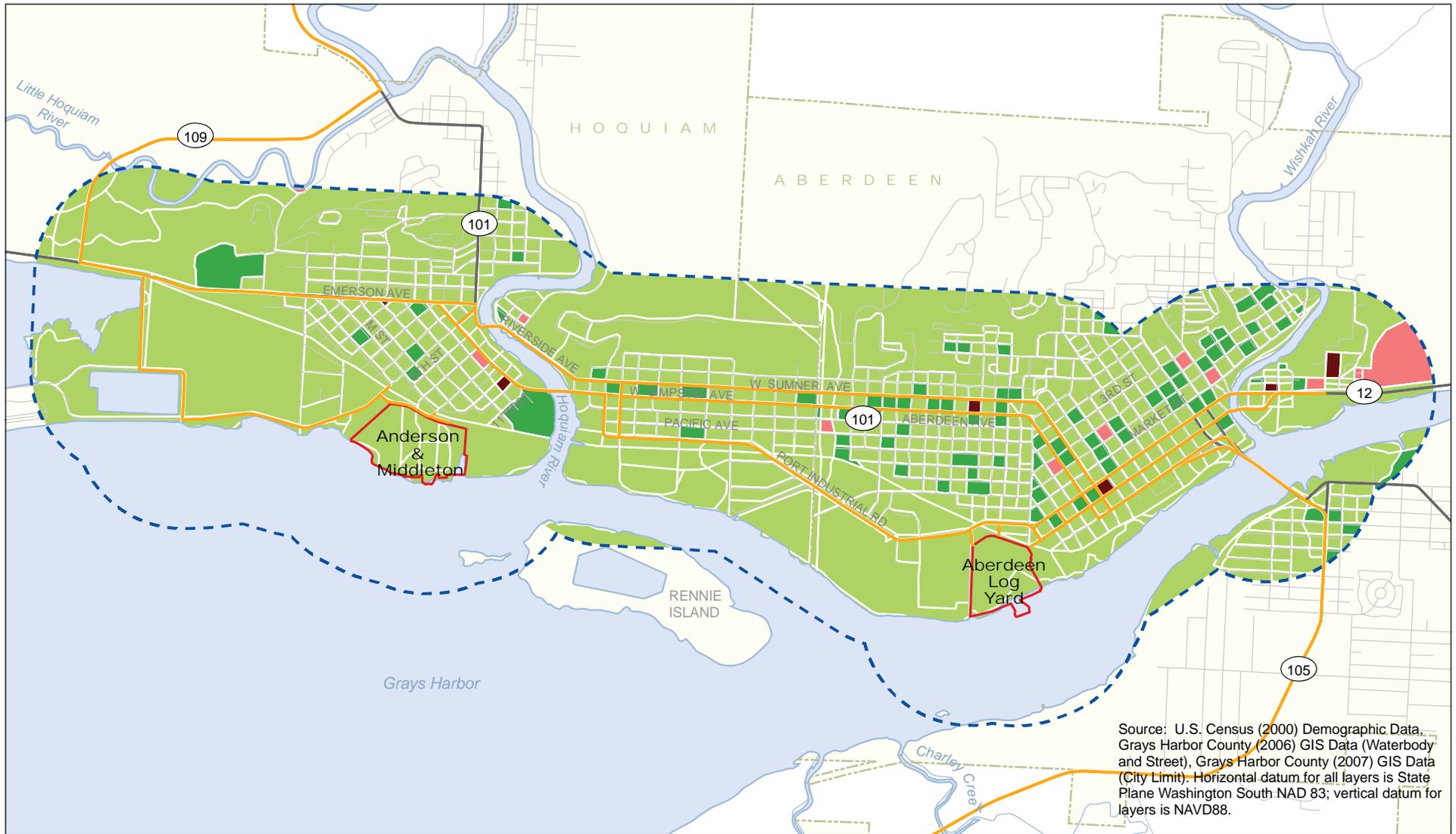
Source: U.S. Census (2000) Demographic Data, Grays Harbor County (2006) GIS Data (Waterbody and Street), Grays Harbor County (2007) GIS Data (City Limit). Horizontal datum for all layers is State Plane Washington South NAD 83; vertical datum for layers is NAVD88.



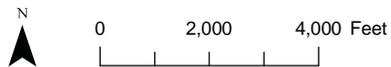
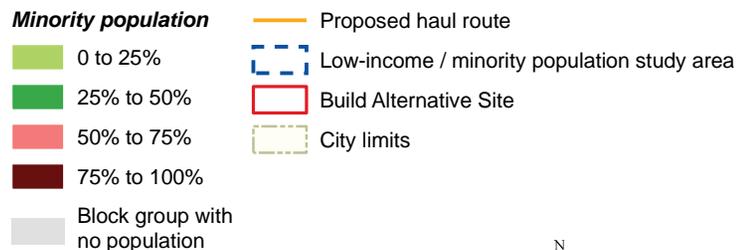
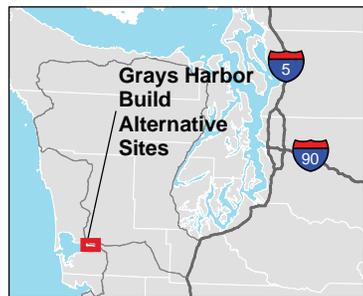
### Exhibit 3.13-3. Low-Income Population in the Grays Harbor Study Area

SR 520 Pontoon Construction Project





Source: U.S. Census (2000) Demographic Data, Grays Harbor County (2006) GIS Data (Waterbody and Street), Grays Harbor County (2007) GIS Data (City Limit). Horizontal datum for all layers is State Plane Washington South NAD 83; vertical datum for layers is NAVD88.



### Exhibit 3.13-4. Minority Population in the Grays Harbor Study Area

SR 520 Pontoon Construction Project



## Anderson & Middleton Alternative

### Features Contributing to Community Cohesion

Historically, the study area surrounding the Anderson & Middleton site was used for lumber mills, canneries, and shipbuilding facilities. The site once contained a lumber mill and recently has been used for timber storage. The immediate vicinity around the Anderson & Middleton site is still industrial in character and provides employment. Within the study area, there is residential and commercial development on neighboring streets, such as 5th, 6th, and N streets northwest of the site and the railroad right-of-way. The residential development consists primarily of homes built in the early 1900s.

The Puget Sound & Pacific Railroad right-of-way separates the industrial nature of the site from the primarily commercial and residential nature of downtown Hoquiam, acting as a boundary between these two separate and distinct portions of the study area. In downtown Hoquiam, many religious facilities, commercial services, and government resources (for example, the post office and the library) provide places for residents to gather and interact with one another. The community cohesion in the study area is moderate because people can gather, interact, and receive social services at places within walking and bicycling distance of the site.

Hoquiam connects to the surrounding area and beyond via US 12, US 101, and SR 109. These routes provide the primary links to and from the study area and communities beyond. The street layout in downtown Hoquiam and next to SR 101 is a grid, which allows drivers to bypass the main arterial and access the area's many community resources. The proposed project haul routes traverse mainly commercial and industrial land uses, and near downtown Hoquiam the route would bypass residential and public school uses.

### General Populations Characteristics

Hoquiam's population has decreased by 3.3 percent (302 residents) since 2000. Since 2000, Grays Harbor County's population increased by 5.2 percent (3,706 residents). In 2000, Hoquiam represented approximately 13.5 percent of the population of Grays Harbor County; in 2008, it represented 12.4 percent (U.S. Census Bureau 2000).

According to the 2000 U.S. Census, residents in the Anderson & Middleton Alternative study area tend to have a higher median age, are more likely to be over 65, and have smaller household sizes compared to Hoquiam overall and Grays Harbor County. The study area also has more residents who rent their homes, a lower median household income, households at or below the poverty level, and more households with no vehicle. These factors could indicate that the study area's residents

depend on transit and other community resources (for example, food banks and thrift stores). There is a higher percentage of disabled individuals located around the Anderson & Middleton site than along the haul route. The population characteristics for residences next to the haul route were difficult to determine solely using Census data because the Census block groups are large and overlap making the statistics hard to split out. Therefore, WSDOT performed a windshield survey (driving through the study area) to help characterize the population. WSDOT analysts observed that the populations are similar to the general population characteristics of Hoquiam and Grays Harbor County. Like the site study area, it appears that a slightly higher population of residents over 65 live in the homes directly along the haul route.

### **Minority and Low-Income Population Characteristics**

The minority and low-income populations in the Anderson & Middleton Alternative study area mirror those in Hoquiam and Grays Harbor County overall. Overall, the minority population of the study area represents 16.3 percent of the study area population, which is higher than the concentrations in Hoquiam (13.5 percent) and Grays Harbor County (13.5 percent). The low-income population concentration within the study area is 21.2 percent, similar to Hoquiam (19.0 percent) and higher than for Grays Harbor County (16.1 percent) (U.S. Census Bureau 2000).

Although a small percentage of Native Americans reside within the study area, the Grays Harbor area is home to several tribes. Specifically, the Quinault Indian Nation currently uses Grays Harbor for fishing, as provided by treaty rights. The study area in Grays Harbor is culturally important to both the Quinault Indian Nation and the Confederated Tribes of the Chehalis Reservation.

The proposed haul routes would mainly use state highways in commercial areas or a route that follows the Port Industrial Road (see Exhibit 2-1 in Chapter 2). Most census blocks adjacent to the haul routes have minority and low-income population concentrations below 25 percent, and the haul route along Port Industrial Road contains many census blocks with no population.

School year 2006-2007 information from Emerson Grade School and Central Elementary School in Hoquiam, which are both along the proposed truck haul route for the Anderson & Middleton Alternative and have attendance boundaries that cross the study area, indicates that minority and low-income populations in the study area have increased since the 2000 U.S. Census (Common Core of Data 2009).

### Community and Social Resources

Community resources include educational facilities and social, religious, and government institutions. Exhibit 3.13-1 shows the locations of these resources in the Anderson & Middleton Alternative study area and adjacent to the proposed haul routes. Along with the two elementary schools mentioned above, Hoquiam High School and the Hoquiam School District's administrative facilities are also on the proposed truck haul route.

Social resources include food banks, community centers, and transitional housing. Several social institutions are located in the Anderson & Middleton Alternative study area or close to the haul routes, such as schools, the Hoquiam Clothing and Food Bank, and the YMCA of Grays Harbor.

### Recreational, Pedestrian, Bicycle, and Transit Facilities

No recreational facilities are located within the Anderson & Middleton Alternative study area; however, two parks are located along the proposed haul route (Exhibit 3.13-1). Schools along the haul route in the Hoquiam School District provide fields and playground equipment for public use. In addition, the Grays Harbor National Wildlife Refuge is located near the proposed haul route; up to 1 million migratory shorebirds gather each spring and fall to feed and rest on the refuge's intertidal mudflats, salt marsh, and uplands. The refuge includes an American with Disabilities Act-accessible boardwalk and marked trails that provide opportunities for visitor education programs.

There are no bicycle paths or lanes in the study area, and bicyclists must ride next to vehicles on the roadways, including the proposed haul routes. Grays Harbor Transit provides daily bus service in Hoquiam, and Route 20 has four stops between Hoquiam and Aberdeen along the proposed haul routes.

## How did WSDOT evaluate direct effects on social elements?

To evaluate potential project effects on social elements, WSDOT collected information from federal, state, and local sources, including demographic data from the U.S. Census Bureau, the Washington State Office of Financial Management, and the National Center for Education Statistics. WSDOT used comprehensive plans, relevant Web sites, a site visit, and GIS and other maps to identify community resources, recreation facilities, and pedestrian, bicycle, and transit facilities in the study area and close to the haul routes. WSDOT also reviewed the project public involvement plan to identify outreach strategies to keep the public informed about the project.

WSDOT used the following methods to identify and evaluate the project's potential positive and negative effects on social elements:

- Visited the study area to assess current neighborhood environments and how the project could affect them
- Used GIS, as needed, to map the areas where any potential effects could occur
- Reviewed the project design to determine where project elements would be constructed and where project operations would occur in relation to the study area and haul routes
- Reviewed and analyzed other project technical memoranda, including Air Quality, Economics, Noise, Land Use, and Transportation (Appendices G, J, L, N, and P, respectively), to identify the project's expected beneficial and adverse social effects as well as any mitigation measures needed to minimize adverse effects

To evaluate potential environmental justice effects of the project, WSDOT considered whether the project would result in disproportionately high and adverse effects to low-income and minority populations in accordance with WSDOT's Environmental Procedures Manual. Potential effects on Environmental Justice populations are discussed under the heading *How would the project affect low-income and minority populations?* later in this section.

## **How would construction of the casting basin directly affect social elements?**

Examples of typical construction effects that could affect social elements include increases in noise and dust levels and negative visual quality effects. Another construction effect specific to this project could be pile-driving noise and vibration; pile-driving would be required to construct the pontoon site foundation and turning dolphins. These effects could adversely affect area residents and businesses as well as people using nearby social and recreational facilities. Construction noise would depend on the type, amount, and location of activities. WSDOT would comply with all local and county policies regarding construction activities.

The truck trips associated with the casting basin facility construction activities might affect the character of the communities and the community resources adjacent to the haul routes. Many trucks would travel to and from the site, creating traffic delays of up to 1 minute at some intersections and pedestrian access and safety issues, as well as producing extra noise and dust along the proposed haul routes. Also,

parts of the proposed haul routes are used by transit. Project-related congestion along these routes could result in bus operation delays.

### **Aberdeen Log Yard Alternative (Preferred Alternative)**

Noise levels would increase during casting basin construction and along the haul routes. Construction noise at the site could exceed the maximum noise levels set by the Washington state noise control ordinance, but existing commercial and industrial structures would shield most noise-sensitive receptors from the noise. As a result, special noise-reducing mitigation measures would not be needed at this site. Refer to Section 3.10, Noise, for additional information on noise effects.

#### **Community Cohesion**

The proposed casting basin facility would be located in an industrial area, and developing the site would not bisect, disrupt, or isolate any established communities or change the existing community character, nor would it require relocating any residences or businesses that would negatively affect community cohesion. Project construction is consistent with the City of Aberdeen's goals and policies and would not involve converting existing land uses (see Section 3.12, Land Use). Noise levels would increase during construction at the project site and along the haul route; however, construction-related activities would be exempt from the state noise ordinance between 7 a.m. and 10 p.m. (see Section 3.10, Noise).

WSDOT does not anticipate negative disruptions to community cohesion from trucks along the haul route because the trucks would primarily travel on designated state routes and/or along roadways designated for industrial traffic; using the haul route would not separate or isolate neighborhoods from the rest of the community. Segments of the haul routes would largely bypass residential areas because most of the haul route would be located on established state or truck routes. Additionally, the transportation analysis in Section 3.14, Transportation, concludes that the project would not cause unacceptable levels of service or congestion at signalized or unsignalized intersections along the haul route, except for at the unsignalized intersection of Heron and Garfield Street. Heavy truck traffic on the haul route could cause congestion in Aberdeen, disrupting normal mobility and access to social resources but not to an extent that would change community cohesion (see Appendix O, Social Elements Technical Memorandum). Crosswalks at all intersections along the haul routes would be maintained to ensure safe pedestrian access across the potential haul routes.

Although noise levels would not increase over any threshold levels during construction and any increases would be minimal because of the sporadic nature of the noise for those who live adjacent to the haul route or residents walking, bicycling, or waiting for transit, residents could be inconvenienced by noise and dust associated with truck traffic along the potential haul route.

### **Regional and Community Growth**

The project would create jobs and some of those jobs could be filled with people who live in the Grays Harbor County region. The presence of new jobs would be a beneficial effect for the area, but the project is short term. As a result, the project is not expected to change regional and community growth (see Section 3.8, Economics).

### **Community Resources**

Constructing the casting basin facility would likely have no effects on any community resources because of their distance from the Aberdeen Log Yard site. Community resources adjacent to the haul route would not experience negative effects from increased traffic, noise, or air quality because construction activities would not impede access or increase traffic to unacceptable levels of service (except for at one unsignalized intersection), noise, or air quality levels above any allowable limits or standards (see Section 3.5, Air Quality; Section 3.10, Noise; and Section 3.14, Transportation). Residents could, however, be inconvenienced by the noise, dust, and traffic associated with trucks along the haul route. Further, the project would not adversely affect any public services or utility providers (see Section 3.11, Public Services and Utilities).

### **Recreational, Pedestrian, Bicycle, and Transit Facilities**

Because no recreational facilities are in the Aberdeen Log Yard Alternative study area, there would be no effects on such facilities during casting basin facility construction. Recreation facilities adjacent to the haul route would not be adversely affected by noise, air quality, or traffic because noise levels and air quality levels would not exceed allowable limits, and construction traffic along the haul route would not disrupt access to the facilities (see Sections 3.5, Air Quality; 3.10, Noise; and 3.14, Transportation).

Casting basin construction could affect pedestrian and bicycle safety and bus operations along the proposed haul routes due to increased congestion from project-related truck traffic. Pedestrians and cyclists could experience some delays at crosswalks along the haul route from increased congestion, but they could use other streets nearby to avoid the haul route. Choosing another route could mean that pedestrians and cyclists would travel a longer distance to reach their destination.

Additionally, crosswalks along the haul routes would be maintained to ensure safe pedestrian access across the potential haul routes. Access to pedestrian and bicycle facilities would not be obstructed during this project.

Project construction would not likely affect transit or paratransit (special transport services for people with disabilities) operations because the traffic level of service (LOS) on the roads used by transit is expected to remain at acceptable levels, even during casting basin construction. At intersections where the LOS degrades below current levels, traffic modeling shows that the greatest delay at these intersections would be more than 10 seconds, but less than 1 minute. These delays would affect cars and transit to the same degree, so those who rely on transit (for instance, disabled persons, elderly, and those without cars) would experience these delays in their commute. WSDOT anticipates potentially noticeable delays at only a few unsignalized intersections along the haul routes, which usually are not used as bus routes (see Section 3.14, Transportation).

### **Anderson & Middleton Alternative**

Building the casting basin facility at the Anderson & Middleton site would have the same effects on the various social elements as those described above for the Aberdeen Log Yard Alternative except for noise-related effects. For some of the sensitive receptors (residences) north of the site, noise levels would exceed the maximum allowable level set by WAC. However, construction-related activities are exempt between the hours of 7 a.m. and 10 p.m. and would not need to meet the levels specified in WAC Chapter 173-60 during that time period.

Additionally, the transportation analysis in Section 3.14, Transportation, concludes that the project would not cause unacceptable levels of service or congestion at signalized or unsignalized intersections along the haul route. At intersections where the LOS degrades below current levels, traffic modeling shows that the greatest delay at these intersections would be more than 10 seconds but less than 1 minute. These delays would affect cars and transit to the same degree. The haul route for the Anderson & Middleton Alternative would be longer than the haul route proposed for the Aberdeen Log Yard Alternative, and local effects along the haul route would be experienced in Aberdeen and Hoquiam.

## How would pontoon-building operations directly affect social elements?

### CTC Facility

The existing CTC facility site is a fully operational facility located in an industrial setting that does not have community resources or services; residential neighborhoods with low-income, minority, or other populations; nor any nearby recreational destinations.

The haul route to and from the site is already characterized by heavy truck traffic and is contained within the same industrial setting. Use of the existing CTC facility to build pontoons would be consistent with the current industrial purpose of the site. Using the CTC facility for this project would not produce any effects on any social element.

### Aberdeen Log Yard Alternative (Preferred Alternative)

The direct effects on social elements from pontoon-building operations at the Aberdeen Log Yard site would be similar to those described previously for construction, except for noise-related effects. Operation noise levels would be different because there would be no pile-driving while pontoons are constructed. At this site, most noise-sensitive properties are somewhat shielded from the site by existing commercial and industrial structures. As a result, noise levels during operation of the facility at those properties would be within the Washington state noise control ordinance criteria.

Similar to during casting basin construction, pedestrians and cyclists could experience some delays at crosswalks along the haul routes due to increased congestion, but they could use other streets nearby to avoid the haul route. However, during the operational phase of the project, the number of truck trips along the haul route would decrease by as much as 70 to 80 percent relative to truck traffic during casting basin construction. (Additionally, the traffic LOS along the haul route is expected to remain the same as current levels.) Potentially noticeable delays of up to 1 minute are anticipated at only a few unsignalized intersections along the haul routes, which usually are not used as bus routes (see Section 3.14, Transportation). For this reason, WSDOT does not expect that transit and paratransit operations would be affected during pontoon-building operations. However, people who rely on transit, such as the disabled, elderly, or those who do not own a car, would experience transit delays if the roadways are congested.

## **Anderson & Middleton Alternative**

Direct effects from pontoon-building operations at the Anderson & Middleton site on social elements would mostly be the same as those described for the Aberdeen Log Yard Alternative. However, some sensitive receptors north of the site could be affected by noise from pontoon-building operations at the Anderson & Middleton site. WSDOT will implement mitigation measures to reduce noise levels at those locations to below the ordinance limits; these measures are discussed in Chapter 5, Mitigation. Also, unlike construction noise, operation noise that exceeds the limits set by the Washington state noise control ordinance would be subject to daytime noise restrictions.

## **How would pontoon moorage directly affect social elements?**

### **CTC Facility**

The pontoons built at the CTC facility would be moored at existing marine berths in Puget Sound where no social elements are present; therefore, there would be no effects on social elements.

### **Grays Harbor Build Alternatives**

Pontoon moorage is not expected to have social effects because the pontoons would be moored in Grays Harbor outside of the federal navigation channel. There are no social elements nearby, including established recreation areas.

## **How would the Grays Harbor build alternatives compare in their direct effects on social elements?**

Exhibit 3.13-5 summarizes and compares the direct social elements effects of the Grays Harbor build alternatives.

## **How would the project affect low-income and/or minority populations?**

### **CTC Facility**

WSDOT's proposed use of the CTC facility to build pontoons would not produce effects on any social element or minority or low-income population. The existing CTC facility is located in an industrial setting that does not contain communities of low-income or minority populations.

EXHIBIT 3.13-5  
Social Elements Summary of Direct Effects

Type of Effect	Aberdeen Log Yard Alternative (preferred)	Anderson & Middleton Alternative
Casting basin construction	<p>Noise levels would increase during construction at the project site and along the haul routes. Noise-sensitive receptors would be shielded from construction noise by existing commercial and industrial structures.</p> <p>The project would not exceed transportation level of service or air quality standards. However, residents, transit riders, pedestrians, and bicyclists near the haul routes would be inconvenienced by noise, dust, and traffic from increased truck traffic. Minimal delays of up to 1 minute would be experienced at some intersections along the haul route.</p> <p>Pedestrians and bicyclists could experience delays at crosswalks due to increased traffic congestion, but the project would not obstruct access to pedestrian and bicycle facilities.</p> <p>Several activities, such as launch channel construction and installation of dolphins, could temporarily displace tribal fishers from certain fishing locations in Grays Harbor.</p> <p>Project construction would not have disproportionately high and adverse effects on minority and/or low-income populations.</p>	<p>The construction effects would be similar to effects described for the Aberdeen Log Yard Alternative, except at some sensitive receptors (residential buildings) north of the site, noise levels would exceed the maximum allowable level set by the WAC. However, construction-related activities are exempt from the WAC criteria between 7 a.m. and 10 p.m.</p>
Pontoon-building operations	<p>Effects would be similar to those described for construction. Noise-sensitive properties are shielded from the site by existing commercial and industrial structures. As a result, noise levels at those properties would likely be within the Washington state noise control ordinance criteria.</p> <p>Traffic congestion would likely be much less during the operation phase; however, bicyclists and pedestrians could still experience delays at crosswalks; however, the project would not obstruct access to pedestrian and bicycle facilities.</p> <p>Some activities (pontoon floatout and pontoon towing) could temporarily displace tribal fishers from certain Grays Harbor fishing locations.</p> <p>Project operations would not have disproportionately high and adverse effects on minority and/or low-income populations.</p>	<p>The operation effects would be similar to effects described for the Aberdeen Log Yard Alternative, except operations noise levels would be different because there would be no pile-driving during pontoon construction. Also, unlike construction noise, operation noise exceeding the limits set by the Washington state noise control ordinance would be subject to daytime noise restrictions. There are nearby sensitive receptors that would be affected by the project operation.</p>
Pontoon moorage	None	None

WAC Washington Administrative Code

## Grays Harbor Build Alternatives

Construction-related activities and effects, such as noise, dust and emissions, and truck traffic, would affect all populations. People who

rely on transit would experience transit delays if the roadways are congested. At certain intersections these delays would be more than 10 seconds but less than 1 minute. The project would not displace any residences or businesses that provide unique services to minority and/or low-income populations for either build alternative.

The project would result in short-term but beneficial economic effects by creating new jobs, and individuals from minority and low-income populations, including tribal members, could apply and compete for these new jobs. Federal and state requirements, such as Equal Employment Opportunity laws, regarding training, hiring, and wages would apply to the project. The Quinault Indian Nation has expressed interest in the project's job opportunities, and WSDOT will encourage the contractor to recruit from sources likely to yield tribal applicants. The project would include 50,000 hours of training, and 15 percent of the total work hours would be dedicated to apprenticeship requirements.

As discussed in the previous paragraphs, no minority or low-income populations have been identified that would be disproportionately adversely affected by the proposed project as determined above. This analysis meets the provisions of Executive Order 12898, as it is supported by Title VI of the Civil Rights Act. Additionally, project effects would not be borne predominately by low-income and minority populations. WSDOT will continue to inform the public—including minority and low-income populations—about the project throughout its duration.

The project could affect tribal fishing and the use of "usual and accustomed" fishing grounds during launch channel construction, mooring dolphin installation, pontoon floatouts, pontoon moorage, and project-related barge and boat activities. These activities could temporarily displace tribal fishers access to some of their traditional in-water fishing areas in Grays Harbor. WSDOT is closely collaborating with interested tribes to identify measures to avoid, minimize, and mitigate such adverse effects. WSDOT will attempt to avoid effects on tribal fishing and is working on a Memorandum of Agreement with the Quinault Indian Nation to resolve any such issues.

Pontoon-building operations would result in similar effects as casting basin construction, such as increases in noise, dust and emissions, and truck traffic in the study area, although truck traffic would be less than during site development. All populations would be affected, and mitigation measures are proposed to lessen or eliminate these adverse effects for all populations, including minority and low-income. Some of the proposed mitigation measures are outlined under *What mitigation measures does WSDOT propose to reduce direct effects on social*

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**What is a disproportionately high and adverse effect on minority and low-income populations?**

It is an adverse effect that:

- (1) is predominately borne by a minority population and/or low-income population; or
- (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non low-income population.

(US DOT 6640.23)

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*elements?* and under *What mitigation measures does WSDOT propose to reduce direct effects on transportation?* in Chapter 5, Mitigation.

Pontoon-building operations would not cause any adverse effects that would be borne predominately by minority and/or low-income populations or that would be appreciably more severe or greater in magnitude than those experienced by nonminority and non-low-income populations. Additionally, project effects would not be borne predominately by low-income and minority populations.

Pontoon-building operations would also result in new jobs, which individuals from minority and low-income populations in the surrounding area could possibly fill. However, these jobs would last only for the period of pontoon construction.

## **What indirect effects would the project have on social elements?**

### **CTC Facility**

Use of the CTC facility to build pontoons would not produce indirect effects on any social element or minority or low-income population. As previously mentioned, the CTC facility is located within the Port of Tacoma industrial area, and there are no social elements within this area that could potentially be affected by this project. Towing or mooring pontoons in Puget Sound would not likely cause indirect effects on social elements. The pontoons would be towed in normal navigation channels and moored in areas that are not in proximity to social elements.

### **Grays Harbor Build Alternatives**

Using either Grays Harbor build alternative site would not result in adverse indirect effects on minority, low-income, or other populations or community services or resources. Potential indirect effects on social elements would be related to the potential results of new employment opportunities created by the project. These new jobs could result in project workers' spending on nonessential items, such as dinner out or renovations to their homes, which would result in more patronage at local businesses. The tax revenue from the facility owner and increased spending on taxable goods could also result in new funds for community improvement projects and services. With new job opportunities, people could move to the area to fill the positions, which could result in higher demand for housing choices. As with the potential direct effects, these indirect effects would be temporary.

WSDOT does not expect that pontoon towing or moorage in Grays Harbor would indirectly affect social elements. The pontoons would be

towed in normal navigation channels and moored in outer Grays Harbor (not in proximity to social elements).

### **Grass Creek**

The Grass Creek mitigation site is bounded on the south and east by Grass Creek, on the west by SR 109, and on the north by undeveloped land. The site is surrounded by undeveloped land in unincorporated Grays Harbor County. WSDOT does not expect that constructing the Grass Creek mitigation site would affect social elements because the site is not located near any social elements.

### **How would social elements be affected if the project were not built?**

Under the No Build Alternative, there would be no construction-related effects on any of the social elements in the study area because no action would be undertaken. The area would not benefit from new jobs created as a result of the project.

### **What would the cumulative effect on social elements likely be?**

#### **CTC Facility**

There would be no direct or indirect project effects on social elements at or near the CTC facility. Therefore, there would be no contribution to cumulative effects on social elements associated with pontoon-building or towing activities at this site.

#### **Grays Harbor Build Alternatives**

A number of proposed future development projects, mainly related to expansion or improvement of port, marine, harbor, or roadway facilities, are located within the study area (Exhibits 3-3 and 3-4). Some of these projects could generate new jobs, such as the expansions of Paneltech International and the Port of Grays Harbor Terminal 1. These projects, along with the proposed SR 520 Pontoon Construction Project, could help diversify employment opportunities from the historically dominant timber industry jobs and slow or reverse the trend of regional job losses, thereby improving the local economy. The potential positive economic effects of the proposed SR 520 Pontoon Construction Project, together with the other planned projects in the area, could contribute positive cumulative effects on social elements in the Grays Harbor region. Economic growth from the improved infrastructure for the Port and for roads in Grays Harbor County could further lead to increased development and continued positive effects on social resources in the region.