

**3.12. ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN**

**3.12.1. Affected Environment**

Environmental justice issues refer to an action’s potential to result in disproportionate impacts on minority and low-income (MLI) populations as well as children. Factors considered in determining whether an alternative would have a significant impact on environmental justice and protection of children included the extent or degree to which its implementation would result in the following: (1) change in any social, economic, physical, environmental, or health conditions so as to disproportionately affect any particular low-income or minority group; or (2) disproportionately endanger children.

3.12.1.1. EXISTING CONDITIONS

The MLI and youth populations described in this section include those in Kitsap County with emphasis on NAVBASE Kitsap Bangor and the cities of Bremerton and Poulsbo, the community of Silverdale, and portions of Jefferson County, as appropriate.

Table 3.12–1 identifies total population and percentage of disadvantaged and youth populations in Bremerton, Poulsbo, Silverdale, Kitsap County, Jefferson County, and Washington State. Minority persons range from 21.7 percent of the population in Poulsbo to 30.5 percent in Bremerton, compared to 20.9 percent for Kitsap County overall. Minority persons comprise 10.7 percent of the population in Jefferson County. In Washington State, minorities comprise 27.5 percent of the population. Asians are the predominant minority group in each jurisdiction with the exceptions of Bremerton, where blacks are the dominant minority group, and Jefferson County where Hispanics are the dominant minority. With the exception of Jefferson County, American Indians account for less than 2 percent of the population in each jurisdiction, comparable to the state native population of 1.5 percent. The American Indian population, as a share of the total population, ranges from 0.5 percent in Bainbridge Island to 2.3 percent in Jefferson County (U.S. Census Bureau 2010a–h).

**Table 3.12–1. Minority and Low-Income Populations and Youth Populations**

<b>Location</b>	<b>Total Population</b>	<b>Percent Minority</b>	<b>Percent Low-Income</b>	<b>Percent Youth</b>
City of Bremerton	37,259	30.5	19.4	19.5
City of Poulsbo	9,200	21.7	3.5	23.8
Silverdale CDP	19,204	27.7	7.5	21.9
Kitsap County	251,133	20.9	9.4	22.5
Jefferson County	29,872	10.7	13.5	14.9
State of Washington	6,724,540	27.5	12.1	23.5

Source: U.S. Census Bureau 2010a–h

The percent of low-income individuals in the affected region is below or comparable to state levels with the exception of Bremerton, which has a low-income population of 19.4 percent — 7 percent higher than the state and 10 percent higher than Kitsap County. Jefferson County has a low-income rate of 13.5 percent, which is comparable to the percent of low-income individuals

in the state. The number of low-income individuals accounts for 7.5 percent of the population in Silverdale, 3.5 percent in Poulsbo, and 9.4 percent in Kitsap County.

In general, waterfront areas along the western shore of Hood Canal south of Squamish Harbor, including Thorndyke Bay, within Jefferson County are sparsely populated, rural residential areas. The population in Jefferson County is primarily located in the northeastern portion of the county outside of the Area of Potential Effect (APE) from noise or other environmental impacts. The population for the waterfront areas potentially impacted is only available by Census tract. The waterfront area in Jefferson County across Hood Canal from NAVBASE Kitsap Bangor is contained in Census Tract 9502.02, and in 2000 it had a population of 1,617 (U.S. Census Bureau 2000b). In 2010, the estimated population in Census Tract 9502.02 was 1,836 representing an annual increase of 1.3 percent between 2000 and 2010 (Washington State Office of Financial Management 2010). In 2010, there were an estimated 1,192 housing units in Census Tract 9502.02 of which 791 housing units are occupied.

The nearest sensitive noise receptors to NAVBASE Kitsap Bangor include schools and residences. A sensitive noise receptor is defined as a location or facility where people involved in indoor or outdoor activities may be subject to stress or considerable interference from noise. Such locations or facilities often include residential dwellings, hospitals, nursing homes, educational facilities, and libraries. Vinland Elementary School is located approximately 2 miles (3.5 kilometers) northeast of the closest project location, the north LWI project site. Other sensitive noise receptors include residences in Olympic View, located at the south boundary of NAVBASE Kitsap Bangor, in Vinland located just north of the NAVBASE Kitsap Bangor northern property boundary, and on the west side of Hood Canal, notably in the vicinity of Thorndyke Bay. Typical noise levels measured in a small-town residential neighborhood ranged from 43 to 64 dBA, with levels of 52 dBA occurring more than 50 percent of the time (Cavanaugh and Tocci 1998). Vinland and Thorndyke Bay and surrounding areas are predicted to have similar noise characteristics. Sensitive receptors also include recreational users on the eastern side of Toandos Peninsula, as well as boaters or kayakers located on Hood Canal within audible range of the construction site.

#### 3.12.1.2. CURRENT REQUIREMENTS AND PRACTICES

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs federal agencies to address disproportionate environmental and human health impacts to MLI communities, which includes American Indian populations. No consultations or permits are required.

EO 12898 was issued in 1994 to focus federal agency attention on the environmental, human health, and socioeconomic conditions of MLI populations, to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide MLI populations with access to public information on, and an opportunity for, public participation in matters relating to human health and the environment. EO 12898 applies equally to American Indian populations. EO 12898 directs preparers of EISs to address the following:

- Identify MLI populations in the area relative to the general demographic population.
- Identify and analyze potential environmental justice issues, concerns, or impacts, whether direct, indirect, or cumulative; this includes environmental (contaminants), human health (noise), socioeconomic (sacred grounds/selling resources), and subsistence resource use (fish, shellfish, etc.).
- Determine whether there will be a disproportionately high and adverse human health, environmental, or socioeconomic effect on MLI communities, including tribes.
- Provide opportunities for community input from MLI populations and American Indian tribes.
- Identify potential effects and mitigation measures in consultation with affected communities; improve accessibility of meetings, crucial documents, and notices, and ensure documents are concise, understandable, and translated.
- Ensure that the EIS: (1) describes the study area relative to its composition of potentially affected MLI communities; (2) provides the method used and analysis in order to determine how the effects on the environment, human health, and socioeconomics are distributed within the study area; (3) analyzes environmental justice issues, concerns, and impacts for the proposed action and each alternative including the No Action Alternative; (4) determines from the analysis whether impacts on MLI populations (including American Indian tribes) are disproportionately high and adverse as compared to/relative to the general population or comparison group; (5) determines if impacts can be mitigated when disproportionately high and adverse environmental, human health, and socioeconomic effects on MLI populations are identified; (6) identifies mitigation measures, if appropriate; and (7) elicits participation of affected stakeholders including MLI populations and American Indian tribes and considers community input in response to comments.

Environmental justice assessment applies to disadvantaged populations in the region, which includes minority and low-income persons.

These populations are defined as follows:

- *Minority Population*: Blacks, American Indians, Alaska Natives, Aleuts, Asians, Pacific Islanders, and persons of Hispanic or Latino origin of any race.
- *Low-Income Population*: Persons living below the poverty level, based on a 2009 equivalent annual income of \$21,954 for a family of four persons.
- *Youth Population*: Children under the age of 18 years.

The youth population also is analyzed for potential health and safety risks. The President issued EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, in 1997. This order requires that each federal agency “(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.”

### 3.12.2. Environmental Consequences

#### 3.12.2.1. APPROACH TO ANALYSIS

The evaluation of impacts on environmental justice and protection of children analyzes the potential for the proposed action to cause disproportionate public health and environmental effects on MLI populations or youth populations. An environmental justice and protection of children analysis is conducted only on adversely impacted populations. Once an adverse impact has been established, further analysis needs to be conducted for the populations of concern.

#### 3.12.2.2. LWI PROJECT ALTERNATIVES

##### 3.12.2.2.1. LWI ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the LWI would not be built, the existing PSBs would not be relocated, and overall operations would not change from current levels. Therefore, there would be no disproportionate impacts on MLI populations nor environmental health risks or safety risks to children.

##### 3.12.2.2.2. LWI ALTERNATIVE 2: PILE-SUPPORTED PIER

#### CONSTRUCTION

There would be no disproportionate construction-related impacts on the MLI populations and no environmental health risks or safety risks to children have been identified. Concerns about environmental justice and protection of children related to construction activity typically include exposure to noise, pollutants, other hazardous materials, and safety hazards. Because the project is located within a military restricted area, there is no potential for the public to be exposed to pollutants, other hazardous materials, or safety hazards. However, there would be potential for the public to be exposed to noise from construction activities.

#### *Minority*

Under this alternative, residential areas within Jefferson County located along the waterfront on the western shore of Hood Canal and south of Squamish Harbor, including Thorndyke Bay, would experience an increase in airborne noise levels up to 80 days during impact pile driving activities (Sections 3.9.2 and 3.9.3.2.2). The noise level would not exceed daytime maximum residential levels imposed by WAC (60 dBA) at Vinland, Thorndyke Bay, or other adjacent residential communities. Additionally, the noise levels would not be disproportionately high and adverse for minority populations, as this area does not constitute an environmental justice area of concern when comparing minority populations to the general population (Table 3.12-1).

#### *Low-Income*

Jefferson County has a slightly higher percentage of the population classified as low-income than the state level (Table 3.12-1). Residential areas within Jefferson County would be exposed to increase in noise levels during construction. However, since the noise level would not exceed daytime maximum residential levels imposed by WAC (60 dBA) at Vinland, Thorndyke Bay, or

other adjacent residential communities, no disproportionate impact would be anticipated to low-income communities in Jefferson County.

### ***Youth***

Potential impacts to youth populations would be similar to those impacts as described under minority populations above. No disproportionately high and adverse impacts for youth populations have been identified, as this area does not constitute an environmental justice area of concern when comparing youth populations to the general population (Table 3.12-1). In addition, no environmental health risks or safety risks to children have been identified.

### **OPERATION/LONG-TERM IMPACTS**

Because operation of the pile-supported piers would not increase airborne noise levels beyond areas directly adjacent to the piers and PSBs (Section 3.9.3.2.2), there would be no disproportionate operational/long-term impacts on MLI populations from the LWI project and no environmental health risks or safety risks to children.

### ***Minority***

No adverse long-term impacts to minorities have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

### ***Low-Income***

No adverse long-term impacts to low-income populations have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

### ***Youth***

No adverse impacts to youth have been identified under this alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

#### **3.12.2.2.3. LWI ALTERNATIVE 3: PSB MODIFICATIONS (PREFERRED)**

### **CONSTRUCTION**

The overall construction schedule under LWI Alternative 3 would be the same as for LWI Alternative 2; however, only one in-water construction season would be required and the duration of pile-driving would be shorter under Alternative 3 (up to 30 days vs. up to 80 days). Therefore, construction impacts on MLI populations and environmental health risks or safety risks to children would be similar to or less than impacts as described under Alternative 2.

### ***Minority***

Under this alternative, residential areas within Jefferson County located along the waterfront on the western shore of Hood Canal and south of Squamish Harbor, including Thorndyke Bay, would experience an increase in airborne noise levels up to 30 days during impact pile driving

activities (Sections 3.9.2 and 3.9.3.2.2). The noise level would not exceed daytime maximum residential levels imposed by WAC (60 dBA) at Vinland, Thorndyke Bay, or other adjacent residential communities. Additionally, the noise levels would not be disproportionately high and adverse for minority populations, as this area does not constitute an environmental justice area of concern when comparing minority populations to the general population (Table 3.12–1).

### ***Low-Income***

Potential impacts to low-income populations would be similar to those impacts as described under minority populations above.

### ***Youth***

Potential impacts to youth populations would be similar to those impacts as described under minority populations above. Therefore, no disproportionately high and adverse impacts for youth populations have been identified. In addition, no environmental health risks or safety risks to children have been identified.

## **OPERATION/LONG-TERM IMPACTS**

Operations/long-term impacts associated with LWI Alternative 3 would be similar to those described under Alternative 2. Therefore, under Alternative 3, there would be no disproportionate operational/long-term impacts on MLI populations and no environmental health risks or safety risks to children.

### ***Minority***

No adverse long-term impacts to minorities have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

### ***Low-Income***

No adverse long-term impacts to low-income populations have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

### ***Youth***

No adverse impacts to youth have been identified under this alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

#### **3.12.2.2.4. SUMMARY OF LWI IMPACTS**

Impacts on MLI or youth populations associated with the construction and operation phases of the LWI project alternatives, along with mitigation and consultation and permit status, are summarized in Table 3.12–2.

**Table 3.12–2. Summary of LWI Impacts to MLI and Youth Populations**

Alternative	Environmental Impacts to MLI and Youth Populations
LWI Alternative 1: No Action	No impact.
LWI Alternative 2: Pile-Supported Pier	<i>Construction:</i> No disproportionate effects from construction on MLI populations. Construction would not cause any environmental health risk or safety risk to children. <i>Operations/Long-term Impacts:</i> No impact.
LWI Alternative 3: PSB Modifications (Preferred)	<i>Construction:</i> No disproportionate effects from construction on MLI populations. Construction would not cause any environmental health risk or safety risk to children. <i>Operations/Long-term Impacts:</i> No impact
<b>Mitigation:</b> Because construction of the LWI would not disproportionately affect MLI or youth populations, mitigation measures are not necessary.	
<b>Consultation and Permit Status:</b> No consultations or permits are required.	

MLI = minority and low-income

3.12.2.3. SPE PROJECT ALTERNATIVES

3.12.2.3.1. SPE ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the SPE would not be built and overall operations would not change from current levels. Therefore, there would be no impacts on MLI or youth populations.

3.12.2.3.2. SPE ALTERNATIVE 2: SHORT PIER (PREFERRED)

CONSTRUCTION

As with the proposed construction of the LWI, concerns related to environmental justice and protection of children include exposure to noise, pollutants, and safety hazards. The construction of the SPE would involve construction within the base boundaries so no MLI populations outside the base boundaries are expected to be exposed to pollutants or safety hazards. Section 3.9.3.3.2 describes the noise levels generated as a result of the SPE pile driving.

**Minority**

The Olympic View community and properties off the western shore of the Hood Canal would be able to hear the pile driving activities above local background levels; however, noise levels would not exceed the WAC 173-60-40 permissible noise level (60 dBA) for residential areas. Temporary construction noise during the daytime is exempt from these limits; however, residents and sensitive receptors of Olympic View and on the western shore of Hood Canal could be affected by pile driving noise during these activities. Pile installation would require no more than 161 days of pile driving and would take place during the two in-water construction seasons; noise impacts would be temporary. No disproportionately high and adverse impacts for MLI populations have been identified, as this area does not constitute an MLI population when compared to the general population (Table 3.12–1).

***Low-Income***

Jefferson County has a higher percentage of the population classified as low-income than the state level. Residential areas within Jefferson County would be exposed to increase in noise levels during construction. However, since the noise level would not exceed daytime maximum residential levels imposed by WAC (60 dBA) at Vinland, Thorndyke Bay, or other adjacent residential communities, no disproportionate impact would be anticipated to low-income communities in Jefferson County.

***Youth***

Potential impacts to youth populations would be similar to those impacts as described under minority populations above. Therefore, no disproportionately high and adverse impacts for youth populations have been identified. In addition, no environmental health risks or safety risks to children have been identified.

**OPERATION/LONG-TERM IMPACTS**

Because additional noise associated with this alternative would not be audible at off-base areas or by sensitive receptors, there would be no operational/long-term impacts on MLI populations under this alternative. In addition, no environmental health risks or safety risks to children have been identified.

***Minority***

No adverse long-term impacts to minorities have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

***Low-Income***

No adverse long-term impacts to low-income populations have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

***Youth***

No adverse impacts to youth have been identified under this alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

**3.12.2.3.3. SPE ALTERNATIVE 3: LONG PIER****CONSTRUCTION**

Exposure to noise levels, pollutants, and safety hazards would be similar to those described above for SPE Alternative 2. Construction would occur within the base boundaries and pollutants and safety hazards are not expected to affect off-base residents. Noise levels would also be similar to those described under the Alternative 2.



***Minority***

Under this alternative, noise levels would not exceed the WAC 173-60-40 permissible noise level for residential areas; however, residents in the Olympic View community and properties on the western shore of Hood Canal would be able to hear the pile driving activities above local background levels and could be adversely impacted during construction activities. Any impacts are anticipated to be temporary, lasting only for the duration of the pile installation, which would require no more than 205 days of pile driving and would take place during the two in-water construction seasons. No disproportionately high and adverse impacts for MLI populations have been identified, as this area does not constitute an MLI population when compared to the general population (Table 3.12-1).

***Low-Income***

Potential impacts to low-income populations would be similar to those impacts as described under minority populations above.

***Youth***

Potential impacts to youth populations would be similar to those impacts as described under minority populations above. Therefore, no disproportionately high and adverse impacts for youth populations have been identified. In addition, no environmental health risks or safety risks to children have been identified.

**OPERATION/LONG-TERM IMPACTS**

Because additional noise associated with operation of this alternative would not be audible at off-base areas or by sensitive receptors, there would be no operational/long-term impacts on MLI or populations under this alternative. In addition, no environmental health risks or safety risks to children have been identified.

***Minority***

No adverse long-term impacts to minorities have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

***Low-Income***

No adverse long-term impacts to low-income populations have been identified during the operation of the alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

***Youth***

No adverse impacts to youth have been identified under this alternative. Therefore, no further analysis needs to be conducted for the populations of concern.

3.12.2.3.4. SUMMARY OF SPE IMPACTS

Impacts on MLI or youth populations associated with the construction and operation phases of the SPE project alternatives, along with mitigation and consultation and permit status, are summarized in Table 3.12–3.

**Table 3.12–3. Summary of SPE Impacts to MLI and Youth Populations**

Alternative	Environmental Impacts to MLI and Youth Populations
SPE Alternative 1: No Action	No impact.
SPE Alternative 2: Short Pier (Preferred)	<p><i>Construction:</i> Residents in Olympic View and the western shore of Hood Canal could be adversely impacted temporarily during pile installation activities. No disproportionate effects from construction on MLI populations. Construction would not cause any environmental health risk or safety risk to children.</p> <p><i>Operations/Long-term Impacts:</i> No impact.</p>
SPE Alternative 3: Long Pier	<p><i>Construction:</i> Residents in Olympic View and the western shore of Hood Canal could be adversely impacted temporarily during pile installation activities (longer duration than Alternative 2). No disproportionate effects from construction on MLI populations. Construction would not cause any environmental health risk or safety risk to children.</p> <p><i>Operations/Long-term Impacts:</i> No impact.</p>
<p><b>Mitigation:</b> Because construction of the SPE would not disproportionately affect MLI or youth populations, mitigation measures are not necessary.</p>	
<p><b>Consultation and Permit Status:</b> No consultations or permits are required.</p>	

MLI = minority and low-income

3.12.2.4. COMBINED IMPACTS OF THE LWI AND SPE PROJECTS

Neither the LWI or SPE projects would have disproportionate impacts on minority or low-income populations because there are no low-income or minority populations within the locations for the proposed projects. There would be no disproportionately high and adverse environmental, human health, and socioeconomic effects on minority and low-income populations or children. Therefore, there would be no combined impact of the two projects on environmental justice populations or the protection of children.