

### **3.4 ENVIRONMENTAL JUSTICE**

The affected environment for environmental justice includes definitions of minority and low-income populations; a discussion of race and ethnic origin; and a discussion of the relationship between environmental justice and subsistence resources, socioeconomics, cultural resources, and community health. The Environmental Impact Statement (EIS) analysis area for this section includes the EIS analysis area described in Section 3.10, Health and Safety, corresponding to an area that could be affected by the mine site, transportation corridor, and natural gas pipeline for each alternative through changes in economic, subsistence, and health resources and activities. This includes the six Iliamna Lake communities that would be most impacted economically and by impacts to subsistence resources by project, and regional communities in the Bristol Bay area that may experience economic impacts from the project.

#### **3.4.1 Definitions of Minority and Low-Income Populations**

Executive Order 12898 (1994) requires that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories.” Essentially, the order requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority communities and low-income populations, as defined by the executive order. Under Executive Order 12898, demographic information is used to determine whether minority populations or low-income populations are present in the areas potentially affected by the project. If so, a determination must be made as to whether implementation of the project may cause disproportionately high and adverse human health or environmental effects on those populations.

For the purposes of this analysis, a minority community is defined as a community with a majority (i.e., 50 percent or greater) minority population, and a low-income community is defined as having a greater percentage of the population living in households below the poverty threshold as defined by the US Census Bureau than the percentage of the population in the state living below that level. This is consistent with guidance from the Council on Environmental Quality (CEQ) (CEQ 1997). Historically, minority and low-income populations have suffered a greater share of adverse environmental and health impacts related to industry and development projects relative to the benefits. In addition, impacts to Alaska Native populations may be different from impacts on the general population due to a community’s distinct cultural practices (CEQ 1997). Subsistence populations are low income by definition; however, they are not necessarily lacking in resources. Therefore, agencies would consider impacts to subsistence and sociocultural characteristics as a component of the environmental justice analysis.

#### **3.4.2 Minority and Low-Income Populations**

The project’s potentially affected population includes those who live, work, or participate in subsistence activities in the EIS analysis area. Table 3.4-1 presents available community-level racial and ethnic characteristics, as well as the percent living below the poverty level for the population in the EIS analysis area that would be affected during construction and operations of the mine site, transportation corridor, port, and natural gas pipeline for all alternatives. Figure 3.4-1 shows minority and low-income communities in the EIS analysis area.

Data in this section were obtained from the US Census Bureau 2013-2017 American Community Survey (ACS). Estimates from the ACS are all “period” estimates that represent data collected

over a period of time (as opposed to “point-in-time” estimates, such as the decennial census, that approximate the characteristics of an area on a specific date). The primary advantage of using multi-year estimates in this analysis of low-income populations is the increased statistical reliability of the data for less populated areas and small population subgroups such as those in the vicinity of the project site. Therefore, minority and low-income populations that could be affected by the project have been adequately identified. Statistics for the state of Alaska are provided as a reference.

**Table 3.4-1: Ethnicity, Racial, and Poverty Characteristics of the EIS Analysis Area, 2017  
(Percent of Total Population)**

	White <sup>1</sup>	Black or African American <sup>2</sup>	Alaska Native and American Indians <sup>2</sup>	Asian <sup>2</sup>	Native Hawaiian and Other Pacific Islander <sup>2</sup>	Some Other Race <sup>2</sup>	Hispanic or Latino <sup>3</sup>	Total Minority	Living below Poverty Threshold
Lake and Peninsula Borough	22.4	0.7	67.6	2.2	.02	0.2	1.5	70.7	16.5
Igiugig	10.9	0	89.1	0	0	0	2.2	89.1	2.2
Iliamna	16.9	0	75.4	0	0	0	0	75.4	15.4
Kokhanok	8.1	0	91.9	0	0	0	1.3	91.9	24.3
Levelock	2.1	0	97.9	0	0	0	101	97.9	26.3
Newhalen	9.6	0	82.5	0	0	0	7.0	82.5	17.7
Nondalton	13.6	0	73.6	0	0.9	1.8	0	73.6	29.1
Pedro Bay	16.7	0	50.0	0	0	0	0	50.0	0.0
Port Alsworth	68.8	0.6	10.2	0	0	0	0	10.8	3.3
Kenai Peninsula Borough	83.6	0.5	7.3	1.5	0.3	0.7	4.0	9.6	11.0
Bristol Bay Borough	52.0	0.4	34.6	1.4	0.3	2.3	4.5	36.7	7.1
Dillingham Census Area	17.5	0.4	72.9	1.5	0	0.7	3.1	74.8	16.6
Dillingham	28.0	0.8	56.5	1.4	0	1.4	6.7	58.7	9.7
Ekwok	0	0	100	0	0	0	0	100	39.1
Koliganek	9.4	0	82.9	0	0	0	0	82.9	10.6
New Stuyahok	0.4	0	97.3	0	0	0	0	97.3	24.2
Anchorage Municipality	63.7	5.5	7.3	9.3	2.4	2.2	8.9	24.5	8.1
State of Alaska	65.3	3.2	14.2	6.2	1.2	1.4	6.8	24.8	10.2

Notes:

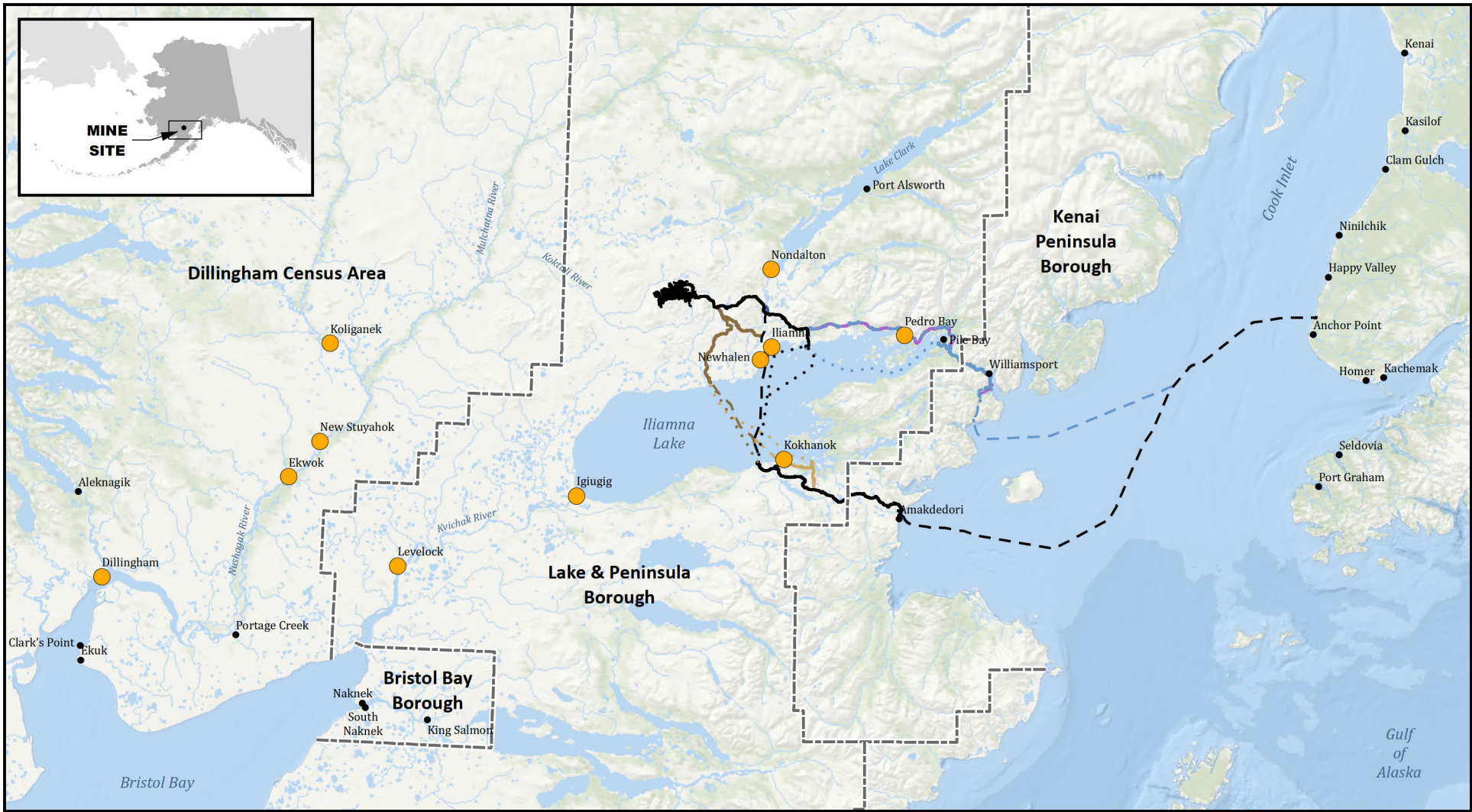
Minority population = Total population – (White, non-Hispanic population + Some Other Race Alone, non-Hispanic population)

<sup>1</sup> Alone, non-Hispanic

<sup>2</sup> Alone or in combination with one or more other races

<sup>3</sup> Of any race

Source: USCB 2018



Sources: PLP 2020-RF1168;  
 PLP 2019-RF1153; ADNDR

**US Army Corps of Engineers**

Miles

- Minority/Low-Income Community
- Borough Boundary
- Action Alternatives**
- ⋯ Ferry Routes
- Natural Gas Pipelines
- Alternative 1a
- Alternative 1
- Alternative 1 Kokhanok East Ferry Terminal Variant
- Alternative 2
- Alternative 2 Newhalen River North Crossing Variant
- Alternative 3

PEBBLE PROJECT EIS

**MINORITY AND LOW-INCOME COMMUNITIES  
 IN THE EIS ANALYSIS AREA**

FIGURE 3.4-1

Most Alaskan communities tend to have a bi-modal racial structure. Most commonly, communities either have a substantial majority of the community that identify as White and other ethnic groups, or a majority that identify as Alaska Native or American Indian (Himes-Cornell et al. 2013). These trends are consistent with the EIS analysis area. As shown in Table 3.4-1, the majority of individuals in the Kenai Peninsula, Bristol Bay Borough, and Anchorage Municipality identify as White; whereas the majority of individuals in the Lake and Peninsula Borough (LPB) and the Dillingham Census Area identify as Alaska Native or American Indian.

The Kenai Peninsula Borough (KPB), Bristol Bay Borough, Municipality of Anchorage, and Port Alsworth in the LPB are not considered minority or low-income communities. Igiugig and Pedro Bay are considered minority communities, but not low-income communities. Iliamna, Kokhanok, Levelock, Newhalen, Nondalton, and the Dillingham Census Area as a whole are considered both minority and low-income communities. Of these communities, Levelock, Kokhanok, and Newhalen have the largest percentage of minority individuals. Kokhanok, Nondalton, and Levelock have the highest percentage of persons below poverty level.

In addition, median incomes through communities in the region are less than half the statewide average of \$76,114. High rates of the population living below the poverty level and low median income are partly based on economies being largely subsistence-based, because wage employment is limited (Himes-Cornell et al. 2013). Many residents seek additional wage employment outside of their community. It should be noted that ACS data are based on wage earnings and do not take into account the value of subsistence in the local economy (see Section 3.3, Needs and Welfare of the People—Socioeconomics, for detailed discussion of employment and income in the EIS analysis area).

Table 3.4-2 evaluates whether communities in the EIS analysis area meet the CEQ definitions of minority and low-income communities. The following communities meet the CEQ definition of minority and/or low-income: Igiugig, Iliamna, Kokhanok, Levelock, Newhalen, Nondalton, and Pedro Bay in the LPB; Dillingham, Ekwok, Koliganek, and New Stuyahok in the Dillingham Census Area; and the Dillingham Census Area as a whole. This environmental justice analysis considers if the project results in disproportionately high and adverse human health or environmental effects on those populations.

**Table 3.4-2: Determination of Minority and Low-Income Communities with Environmental Justice**

Community	Total Minority	Poverty Rates in excess of Poverty Rate for the State of Alaska	Meets Minority or Low-Income Definitions for Environmental Justice
Lake and Peninsula Borough	Yes	Yes	Yes
Igiugig	Yes	No	Yes
Iliamna	Yes	Yes	Yes
Kokhanok	Yes	Yes	Yes
Levelock	Yes	Yes	Yes
Newhalen	Yes	Yes	Yes
Nondalton	Yes	Yes	Yes
Pedro Bay	Yes	No	Yes
Port Alsworth	No	No	No
Kenai Peninsula Borough	No	No	No

**Table 3.4-2: Determination of Minority and Low-Income Communities with Environmental Justice**

Community	Total Minority	Poverty Rates in excess of Poverty Rate for the State of Alaska	Meets Minority or Low-Income Definitions for Environmental Justice
Bristol Bay Borough	No	No	No
Dillingham Census Area	Yes	Yes	Yes
Dillingham	Yes	No	Yes
Ekwok	Yes	Yes	Yes
Koliganek	Yes	No	Yes
New Stuyahok	Yes	Yes	Yes
Anchorage Municipality	No	No	No
State of Alaska	No	No	No

Source: Data summarized from Table 3.4-1

As stated above, impacts to Alaska Native populations may be different from impacts on the general population due to a community’s distinct cultural practices; impacts associated with subsistence are a component of the environmental justice analysis. Section 3.9, Subsistence, and Appendix K3.9 describe subsistence resources, harvest, and sharing patterns for subsistence-based communities in the EIS analysis area. These communities include Igiugig, Iliamna, Kokhanok, Levelock, Newhalen, Nondalton, Pedro Bay, and Port Alsworth in the LPB; Ninilchik and Seldovia in the KPB; King Salmon, Naknek, and South Naknek in the Bristol Bay Borough; and Aleknagik, Clark’s Point, Dillingham, Koliganek, Manokotak, and New Stuyahok in the Dillingham Census Area. The proportion of minority and low-income populations in the communities not listed in Table 3.4-1 are generally similar to those shown in Table 3.4-1 for the KPB, Bristol Bay Borough, and Dillingham Census Area. Other communities in the KPB and Bristol Bay Borough are not considered minority and low-income communities because there is a high proportion of White residents, and the percentage of populations at income levels below the poverty level are generally low. The populations in the Dillingham Census Area are considered minority and low-income communities, with a high proportion of Alaska Native residents and a high percentage of populations at income levels below the poverty level (Himes-Cornell et al. 2013; SOA 2017).

### 3.4.3 Relationship to Subsistence, Health, and Environment

Environmental justice analysis is an intersection between several resource topics. The relationship includes subsistence users, subsistence resources, cultural practices, socioeconomic characteristics, and community health, with a potential for both beneficial and adverse impacts. Socioeconomic impacts associated with population, housing, and employment are described in Section 4.3, Needs and Welfare of the People—Socioeconomics. Section 4.9, Subsistence, describes impacts to subsistence resources and harvest patterns for subsistence-based communities in the EIS analysis area. Project-related impacts to human health are described in Section 4.10, Health and Safety, including effects from changes in air quality and water quality, as well as concerns about contamination and subsistence food consumption. In Section 4.4, Environmental Justice, each alternative is evaluated for possible disproportionate impacts to minority and low-income communities using the information provided in the socioeconomic, subsistence, and human health sections of this EIS; determinations are made on whether environmental justice effects would occur.