

16.1 Introduction

This chapter describes the impacts on *minority and low-income populations*¹ that would result from construction and operation of each of the build alternatives. The sections that follow describe the environmental justice study area, the methods used to analyze the impacts, the affected environment, and the impacts of the build alternatives on minority and low-income populations. The regulations and guidance related to environmental justice are summarized in Section 16.6, *Applicable Regulations*. Downline environmental justice impacts are described in Chapter 17, *Downline Impacts*. Appendix V, *Downline Analysis*, provides further data on assessment methods, assumptions, and results related to the analysis of downline impacts. The contribution of the proposed rail line to cumulative impacts on minority and low-income populations is discussed in Chapter 18, *Cumulative Impacts*.

In summary, OEA determined that construction and operation of the proposed rail line would have an impact on noise, which would be the only impact that could result in high and adverse² impacts on minority and low-income populations. The Colstrip Alternatives would have disproportionately high and adverse noise impacts on minority and low-income populations under all coal production scenarios³ because of the proximity of the existing rail line and the number of households in minority and low-income populations. The Tongue River Alternative, Tongue River Road Alternative, Moon Creek Alternative, and Decker Alternative would have disproportionately high and adverse noise impacts on minority populations under the high coal production scenario. The Tongue River East Alternative, Tongue River Road East Alternative, Moon Creek East Alternative, and Decker East Alternative would have no environmental justice impacts. For all build alternatives and coal

¹ Terms italicized at first use are defined in Chapter 25, *Glossary*. The term *minority and low-income* refers to members of American Indian, Asian or Pacific Islander, Black, or Hispanic groups; or individuals that are below the poverty thresholds defined by the U.S. Census. *Minority and low-income populations* refer to communities where the presence of minorities or low-income people is greater than 50 percent or meaningfully greater than in a geographic unit of comparison. *Communities* refer to groups of individuals living nearby each other, or a set of individuals sharing common conditions of environmental exposure or impact (such as migrant workers).

² The term high and adverse is used in Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which directs agencies to identify and consider “disproportionately high and adverse” human health or environmental effects of their actions on minority or low-income populations. When determining whether human health effects are disproportionately high and adverse, agencies are to consider, to the extent practicable, whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms.

³ The coal production scenarios (low, medium, high) reflect different levels of rail traffic, depending on which build alternative is licensed, which mines are induced or developed, and the production capacities of those mines. The coal traffic scenarios are described in Appendix C, *Coal Production and Markets*. The related rail traffic is summarized in Chapter 2, Section 2.3.3, *Rail Traffic*. In this chapter, the coal productions scenarios (high, medium, low) correspond with the rail traffic noise contours (high, medium, low).

production scenarios where environmental justice impacts were identified, the number of sensitive noise receptors⁴ affected would be five or fewer, except for the Colstrip Alternative and Colstrip East Alternative, where 75 and 70 sensitive noise receptors would be affected, respectively, under the high coal production scenario. These receptors are mostly residences located along the existing Colstrip Subdivision. In these cases, most of the impacts would be concentrated in the minority and low-income Census Block 1000, Block Group 1, Census Tract 3 in the City of Colstrip in Rosebud County. OEA concludes that the noise impacts on minority populations under the Tongue River Alternative, Colstrip Alternative, Colstrip East Alternative, Tongue River Road Alternative, Moon Creek Alternative, and Decker Alternative build alternative and on low-income populations under either of the Colstrip Alternatives would be high and adverse.

16.2 Study Area

OEA defined the study area for environmental justice as Custer, Powder River, Rosebud, and Big Horn Counties, Montana. This study area encompasses the study areas for all other resource areas in this Draft EIS, with the exception of air quality, greenhouse gases, and climate, whose study areas extend beyond these four counties. Because there would be no high and adverse impacts related to air quality, greenhouse gases, and climate under any build alternative, no disproportionately high and adverse human health or environmental impacts on minority or low-income populations would occur outside the four-county environmental justice study area, other than potential impacts from downline rail operation. The analysis of environmental justice impacts on downline rail segments is presented in Chapter 17, *Downline Impacts*.

16.3 Analysis Methods

OEA evaluated the potential for high and adverse impacts to determine if they would be borne disproportionately by minority or low-income populations. To evaluate environmental justice impacts, OEA used the four-step analytical method described below.

16.3.1 Step 1: Define the Study Area

OEA defined the study area as the counties of Custer, Powder River, Rosebud, and Big Horn Counties, Montana, the combined study area of the resources analyzed in this Draft EIS, with the exception of air quality, greenhouse gases, and climate change.

⁴ Receptors located in U.S. Census Blocks where there is no resident population, according to the U.S. Census Bureau 2010 decennial census, were excluded from the environmental justice analysis. The number of receptors identified by the noise analysis that were excluded from the environmental justice analysis is 14 for the Colstrip Alternatives, and between 0 and 1 for the remaining build alternatives.

16.3.2 Step 2: Identify Minority and Low-Income Populations

Within the study area, OEA identified minority and low-income populations following Council on Environmental Quality (CEQ) guidance (Council on Environmental Quality 1997). OEA used the following demographic data for this analysis.

- **Cities, towns, and *census-designated places* (CDPs).** These include population concentrations where incoming populations of workers and their families could reside or spend their income.
- **Census blocks and census block groups.** Census block and census block groups are the smallest geographic areas for which minority and low-income data are available. Census blocks are typically individual city blocks bounded by streets in urban areas, but can consist of many square miles in rural areas. Census block groups are collections of census blocks. Both are subdivisions of census tracts, areas that are relatively homogenous in population characteristics with an average of about 4,000 inhabitants.

OEA used the U.S. Census Bureau's 2010 decennial census for minority data and the 2008 to 2012 American Community Survey for the low-income data (U.S. Census Bureau 2010, 2012). The American Community Survey is the only source of poverty data for CDPs and for census block groups. The margins of error for the poverty estimates in this survey can be considerably large. For example, the poverty rate estimate of 63 percent for Busby, Montana, has a margin of error of plus or minus 32 percent. This means that low-income presence in this community is between 31 percent (63 minus 32) and 95 percent (63 plus 32) in 90 percent of samples. OEA measured the low-income presence as both households and individuals living below the poverty level.

16.3.3 Step 3: Identify All High and Adverse Impacts

OEA reviewed the impact analyses for all resources to identify any high and adverse human health or environmental impacts related to construction and operation of the build alternatives. In doing so, OEA considered whether minority and low-income populations would consume or be exposed to natural resources in a way that would increase the importance of the impacts on these populations. For example, a specific minority group's diet may be more reliant on a specific species of fish for cultural or historic reasons; thus, that group would be more vulnerable to impacts on that fish species. OEA's review of publicly available literature (particularly focused on the Northern Cheyenne Tribe) and scoping comments did not identify different patterns of consumption of or exposure to natural resources among minorities and low-income populations.

OEA then determined that only noise impacts could be considered high and adverse. Noise impacts would affect sensitive receptors (such as residences, schools, libraries, retirement communities, and nursing homes) located along the rights-of-way of the build alternatives.

For the purpose of this environmental justice analysis, OEA defined high and adverse noise impacts as those noise impacts on sensitive receptors within a 65 day-night average sound level (DNL) noise contour that also had a 3 A-weighted decibel (dBA) increase. The noise contours establish the distance from the rail line beyond which train-related noise would be less than a 65 DNL or less than a 3 dBA increase (Chapter 7, *Noise and Vibration*). OEA used the noise contour to identify the census blocks and census block groups for analysis.

OEA also examined the levels of rail traffic corresponding with the high, medium, and low coal production scenarios, each of which would have a different noise contour. The noise contours for these levels of rail traffic range from 236 to 1,225 feet from the centerline of track. Each of the three levels of rail traffic would result in sensitive receptors being located within the 65 DNL/3 dBA noise contours (Chapter 7, *Noise and Vibration*).

16.3.4 Step 4: Determine Whether the High and Adverse Noise Impacts Would Disproportionately Affect Minority or Low-Income Populations

OEA assessed whether there would be a disproportionately high and adverse noise impact on minority or low-income populations using the following steps.

- First, OEA identified the population affected by high and adverse noise impacts. OEA first excluded those sensitive receptors located in census blocks for which the 2010 decennial census showed there was no population (14 receptors under the Colstrip Alternatives, between 0 and 1 under the remaining build alternatives). Because all sensitive receptors that would experience adverse noise impacts are residences (Chapter 7, *Noise and Vibration*), OEA assumed that the sensitive receptors (houses) located in census blocks with no population are unoccupied. OEA identified the populations that would be affected by each level of rail traffic (high, medium, and low) for each build alternative.
- Second, OEA estimated the proportion of the receptors affected by high and adverse noise impacts that belongs to a minority group or that is low-income. For example, under the Colstrip Alternatives, one census block has more than 60 percent of the sensitive receptors under the high and medium rail traffic noise contours. The same block has more than 70 percent of the sensitive receptors that are under the low rail traffic noise contours. The U.S. Census Bureau identifies this block as Block 1000, of Block Group 1, of Census Tract 3 in the City of Colstrip, Rosebud County. This block has a 21.9 percent minority population (13.7 percent American Indian, 5.4 percent of 2 or more races, and 3.5 percent Hispanic—noting that individuals can be simultaneously Hispanic and belong to a minority race such as African American or American Indian).
- Third, OEA compared the share of the receptors that belongs to a minority population to the share of the minority population in the study area or the state of Montana. OEA compared both the share belonging to overall minorities as well as the share belonging to

individual minorities (e.g., African American, American Indian). If the share of the receptors that belongs to a minority was greater than the share of the minority population of the study area or the state, OEA concluded that minorities would experience disproportionately high and adverse human health or environmental impacts from noise. Similarly, OEA compared the share of the receptors that are low-income to the share of the low-income population of the study area or the state of Montana. If the share of the receptors that is low-income was greater than the share of the low-income population of the study area or the state, OEA concluded that low-income populations would experience disproportionately high and adverse human health or environmental impacts from noise.

16.4 Affected Environment

This section characterizes the presence of minority and low-income populations in the study area.

16.4.1 Minority Populations

Minorities account for 12.2 percent of the population in the state of Montana and 37.8 percent of the population in the study area (Table 16-1). American Indians are the largest minority group in the study area, accounting for 33 percent of the population of the study area and 6.3 percent of the population of Montana (Table 16-1).

Of the cities, towns, and CDPs that OEA analyzed, Ismay and Miles City in Custer County, Forsyth in Rosebud County and Broadus in Powder River County had a minority presence below that of the study area and the state of Montana (Table 16-1). OEA considered the remaining cities, towns, and CDPs analyzed to be minority populations. (Ashland, Birney, Colstrip, and Lame Deer in Rosebud County; and Busby, Crow Agency, Fort Smith, Hardin, Lodge Grass, Muddy, Pryor, St. Xavier, and Wyola in Big Horn County). Table 16-1 provides 2010 demographic data for the state of Montana and Custer, Rosebud, Powder River, and Big Horn Counties.

OEA identified six census blocks with both of the following characteristics.

- The share of the population belonging to one or more racial or ethnic categories in the census block was greater than the share of the population in the study area and/or state belonging to that same racial or ethnic category.
- The census block was intersected by one or more of the build alternatives' rights-of-way and/or high rail traffic noise contours.

Five of these census blocks are in Rosebud County and one is in Powder River County (Section 16.5.2, *Impacts by Build Alternative*, Figures 16-1 through 16-5).

Table 16-1. Demographics in the Study Area and State of Montana: Percent of Total Population (%)

Geographic Area	Total Population	White	Black or African American	Alaska Native or American Indian	Asian	Native Hawaiian & Other Pacific Islander	Some other Race	Two or More Races	Hispanic or Latino^a	Minority Population^b
Montana	989,415	89.4	0.4	6.3	0.6	0.1	0.6	2.5	2.9	12.2
Study Area	35,540	63.4	0.3	33.0	0.4	0.4	1.3	2.3	3.1	37.8
Custer County	11,699	95.5	0.3	1.7	0.3	0.1	0.5	1.6	2.2	5.9
Powder River County	1,743	95.0	0.1	1.5	0.2	0	1.1	2.1	1.4	5.6
Rosebud County	9,233	61.3	0.3	34.7	0.5	0	0.5	2.8	3.4	39.8
Big Horn County	12,865	31.4	0.2	64.3	0.5	0	1.0	2.6	4.0	69.6
Ashland	824	29.4	0.5	65.4	0.8	0	0.6	3.3	5.9	71.2
Birney	137	0.7	0	97.1	0	0	1.5	0.7	2.2	99.3
Broadus	468	95.1	0	0.6	0.4	0	1.7	2.1	3.0	6.4
Busby	745	5.8	0.1	92.6	0	0	0.3	1.2	4.0	94.4
Colstrip	2,214	84.7	0.2	9.0	0.6	0.1	0.4	5.0	4.3	18.2
Crow Agency	1,616	2.0	0	96.7	0	0	0.1	1.2	1.1	98.0
Forsyth	1,777	95.0	0.5	1.6	0.8	0.1	0.6	1.5	2.4	6.3
Fort Smith	161	70.8	0	25.5	0	0	1.2	2.5	1.2	30.4
Hardin	3,505	49.8	0.7	40.8	1.2	0.1	2.2	5.1	7.1	52.6
Ismay	19	100.0	0	0	0	0	0	0	0	0
Lame Deer	2,052	4.3	0.3	93.7	0.1	0	0.2	1.4	3.4	95.7
Lodge Grass	428	9.6	0	86.7	0.2	0	0.2	3.3	1.4	90.7
Miles City	8,410	95.3	0.3	1.7	0.4	0.1	0.6	1.6	2.4	6.3
Muddy	617	2.4	0	95.0	0	0	1.1	1.5	8.3	97.9
Pryor	618	12.5	0	85.4	0	0	0.8	1.3	2.8	88.0
St. Xavier	83	38.6	0	55.4	0	0	4.8	1.20	4.8	61.4
Wyola	215	15.8	0	81.9	0	0	0.5	1.90	2.3	84.2

Notes:

^a Individuals who identify as Hispanic, Latino, or Spanish may be of any race; the sum of the other percentages plus the Hispanic or Latino column do not equal 100 percent

^b Minority population, for the purpose of this analysis, is the total population for the census-designated place minus the non-Latino/Spanish/Hispanic White population

Source: U.S. Census Bureau 2010

16.4.2 Low-Income Populations

For the purpose of this analysis, OEA measured the low-income population as both households and individuals living below the poverty level. Poverty rates for individuals were slightly higher, reaching 15 percent of the population in the state and 20 percent of the population in the study area (Table 16-2).

According to the American Community Survey (U.S. Census 2012), poverty levels in Big Horn County were slightly above the study area average. Poverty levels for Custer, Powder River, and Rosebud Counties were slightly below the study area average.

OEA identified cities, towns, and CDPs in the study area that had a higher percentage of low-income households or individuals when compared to the study area and state. Of the cities, towns, and CDPs analyzed, only Forsyth and Colstrip in Rosebud County, Broadus in Powder River County, and Ismay in Custer County had a lower percentage of low-income households and individuals than both the study area and state percentages. OEA considered the remaining cities, towns and CDPs analyzed to be low-income populations (Miles City in Custer County; Ashland, Birney, and Lame Deer in Rosebud County; and Busby, Crow Agency, Fort Smith, Hardin, Lodge Grass, Muddy, Pryor, St. Xavier, and Wyola in Big Horn County).

OEA identified two census blocks, both in Rosebud County, with the following characteristics.

- The share of low-income individuals or households in the census block was greater than the share of low-income individuals or households in the study area and/or state.
- The census block was intersected by one or more of the build alternatives' rights-of-way and/or high rail traffic noise contours.

Table 16-2. Individuals and Families below the Poverty Level in the Study Area: Number and Percentage of Population by Location

Geographic Area	Population	Households				Individuals		
		Total Number of Households	Number low-income	Percentage of Total Households (%)	Margin of error	Number in Poverty	Percentage of Total Population (%)	Margin of Error
Montana	989,415	405,508	55,430	13.7	N/A	146,433	14.8	+/-0.3
Study Area	35,540	12,586	2,368	18.8	N/A	7,195	20.2	N/A
Custer County	11,699	5,075	850	16.7	N/A	1,778	15.2	+/-3.2
Powder River County	1,743	694	83	12.0	N/A	169	9.7	+/-3.4
Rosebud County	9,233	3,285	531	16.2	N/A	1,800	19.5	+/-3.3
Big Horn County	12,865	3,532	904	25.6	N/A	3,448	26.8	+/-3.6
Ashland	824	262	47	17.9	+/-26	198	24.0	+/-10.6
Birney	137	32	14	43.8	+/-10	78	56.7	+/-36.2
Broadus	468	209	22	10.5	+/-20	31	6.6	+/-4.3
Busby	745	107	67	62.6	+/-32	533	71.6	+/-18.0
Colstrip	2,214	776	31	4.0	+/-29	201	9.1	+/-6.8
Crow Agency	1,616	257	71	27.6	+/-36	406	25.1	+/-11.8
Forsyth	1,777	816	89	10.9	+/-38	128	7.2	+/-3.3
Fort Smith	161	20	10	50.0	+/-16	81	50.0	+/-50.0
Hardin	3,505	1275	307	24.1	+/-98	705	20.1	+/-7.2
Ismay	19	15	0	0.0	+/-10	0	0.0	+/-46.0
Lame Deer	2,052	530	211	39.8	+/-50	884	43.1	+/-8.7
Lodge Grass	428	98	38	38.8	+/-21	188	43.9	+/-14.3
Miles City	8,410	3,588	613	17.1	+/-145	1,388	16.5	+/-4.3
Muddy	617	150	46	30.7	+/-23	186	30.1	+/-13.3
Pryor	618	166	56	33.7	+/-26	260	42.1	+/-14.3
St. Xavier	83	5	5	100.0	+/-7	83	100.0	+/-100.0
Wyola	215	52	12	23.1	+/-8	53	24.5	+/-15.9

Notes:

Source: U.S. Census Bureau 2012

16.5 Environmental Consequences

Environmental justice impacts on minority and low-income populations could result from construction and operation of the build alternatives.

16.5.1 Impacts Common to All Build Alternatives

No high and adverse impacts on minority and low-income populations would be common to all build alternatives. Noise and vibration impacts from construction would be comparable for all build alternatives, would be temporary, and would not be considered high and adverse. Noise and vibration impacts from rail operation would be specific to each build alternative, as described below.

16.5.2 Impacts by Build Alternative

The impacts on minority and low-income populations that are specific to each build alternative are described below and summarized in the following tables and figures.

- Table 16-3 summarizes OEA's findings of disproportionately high and adverse noise impacts on minority and low-income populations by build alternative.
- Figure 16-1 shows the location of the sensitive noise receptors relative to minority populations in the study area.
- Figures 16-2 through 16-5 show the areas with sensitive noise receptors on a larger scale, to better show receptors and census blocks in areas of concentration of receptors.
- Figure 16-6 shows the location of the sensitive noise receptors relative to low-income populations in the study area.

Table 16-3. Summary of Environmental Justice Impacts by Build Alternative

Build Alternative	Disproportionately High and Adverse Impacts on Minority Populations			Disproportionately High and Adverse Impacts on Low-Income Populations		
	High Rail Traffic Noise Contour	Medium Rail Traffic Noise Contour	Low Rail Traffic Noise Contour	High Rail Traffic Noise Contour	Medium Rail Traffic Noise Contour	Low Rail Traffic Noise Contour
Tongue River	Yes	No	No	No	No	No
Tongue River East	No	No	No	No	No	No
Colstrip	Yes	Yes	Yes	Yes	Yes	Yes
Colstrip East	Yes	Yes	Yes	Yes	Yes	Yes
Tongue River Road	Yes	No	No	No	No	No
Tongue River Road East	No	No	No	No	No	No
Moon Creek	Yes	No	No	No	No	No
Moon Creek East	No	No	No	No	No	No
Decker	Yes	No	No	No	No	No
Decker East	No	No	No	No	No	No

Note:

Highlighting denotes a disproportionately high and adverse impact on minority or low-income populations

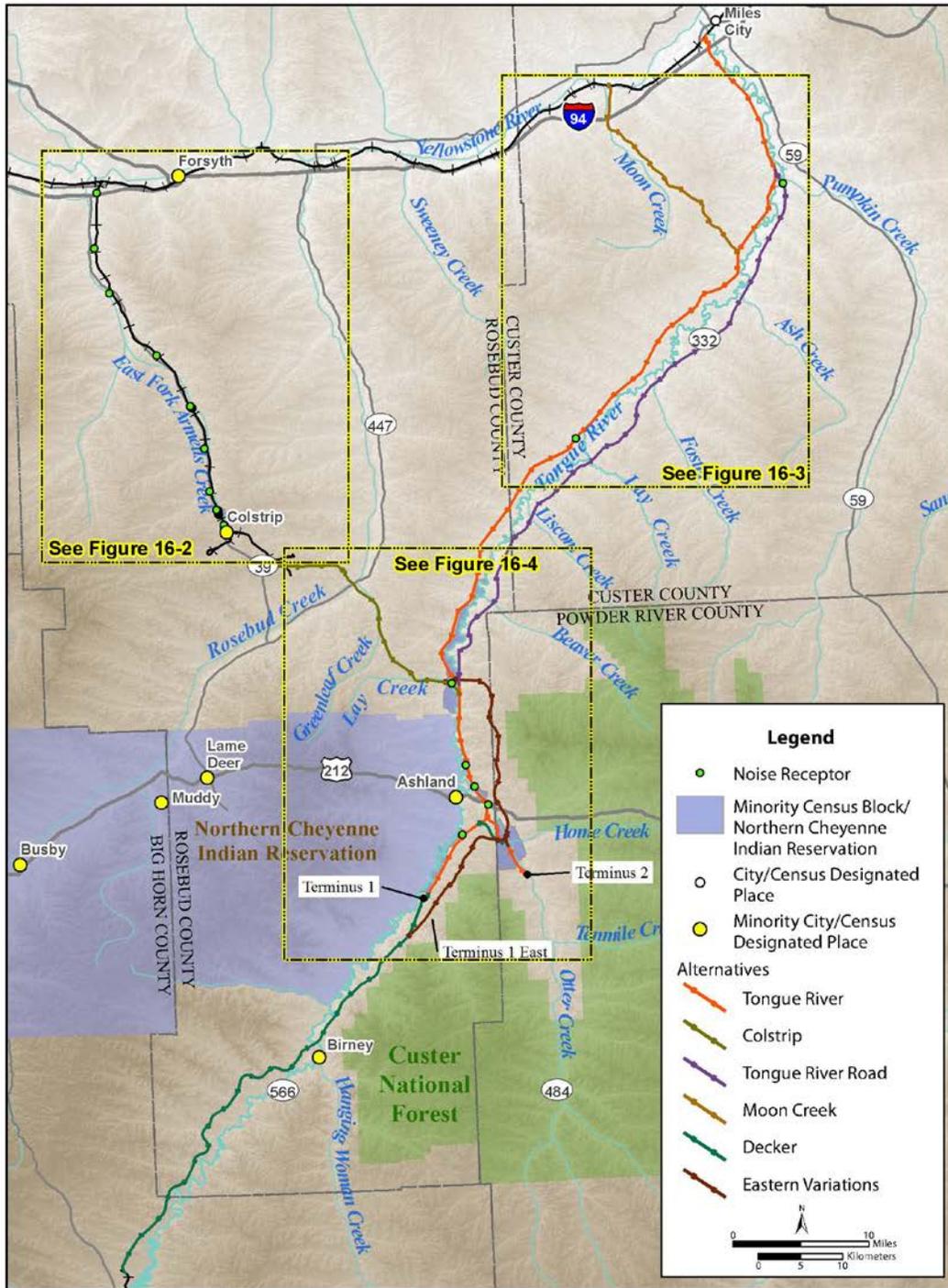


Figure 16-1. Location of Minority Populations and Sensitive Receptors Within the Study Area

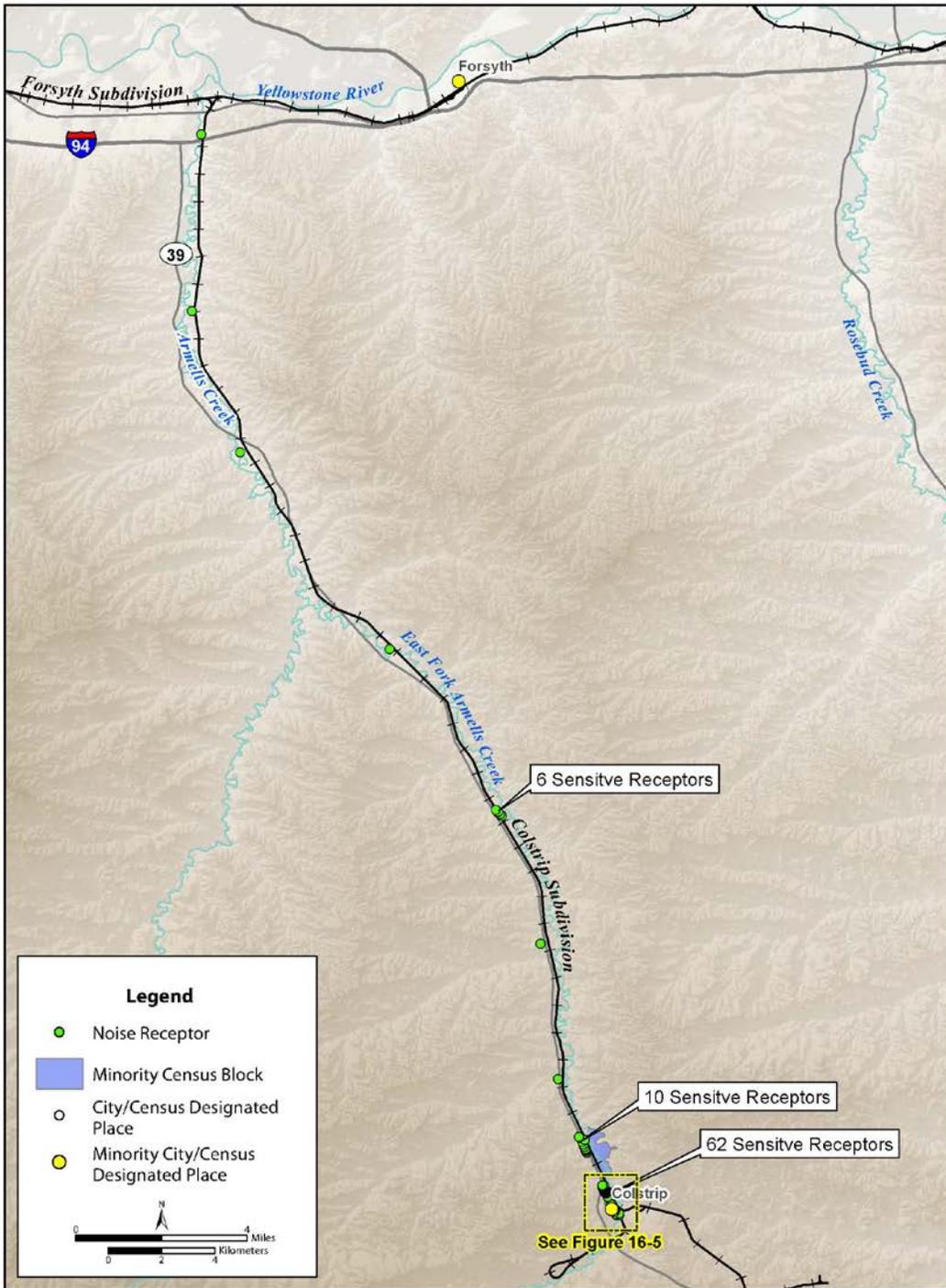


Figure 16-2. Location of Minority Populations and Sensitive Receptors

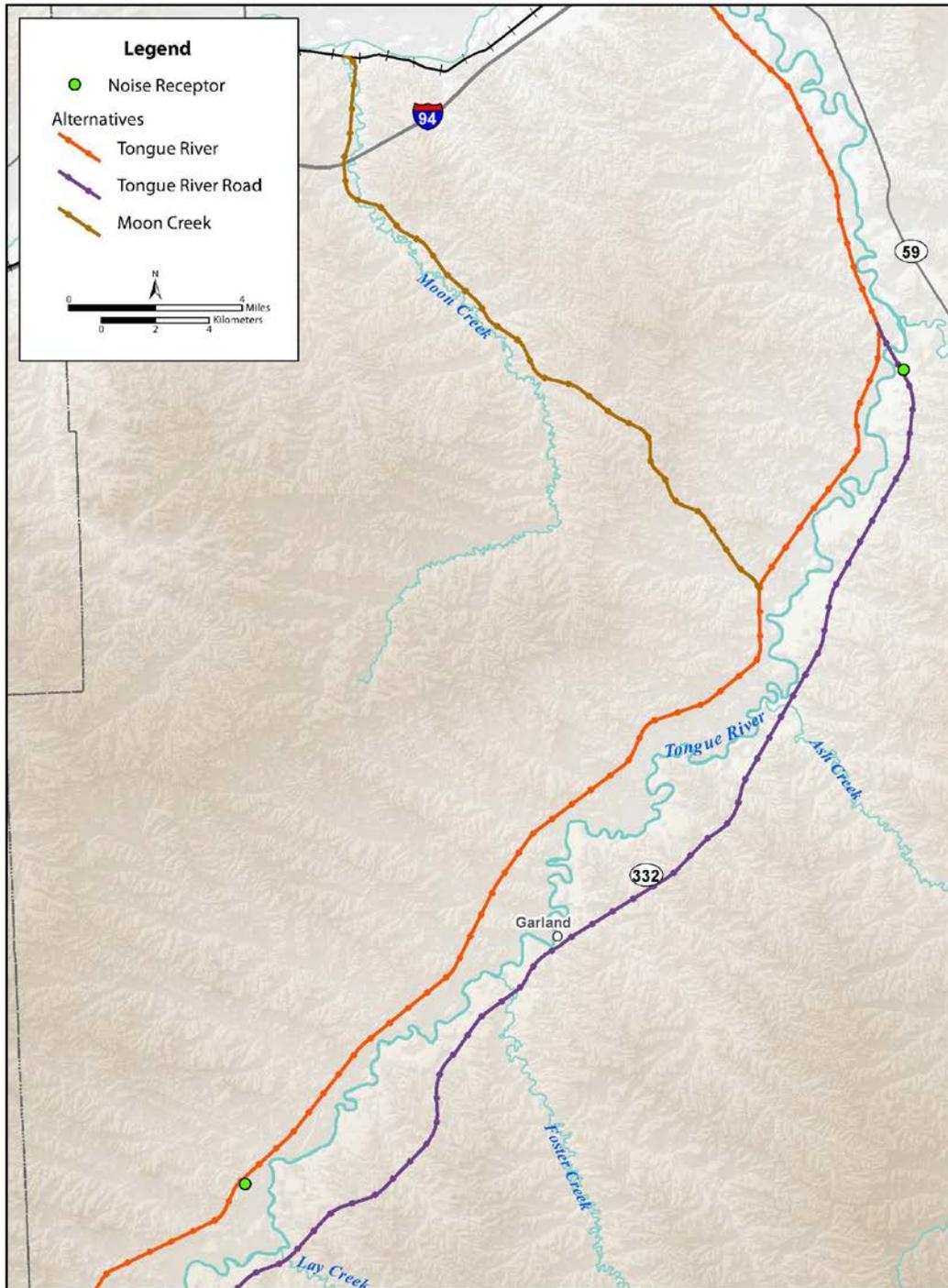


Figure 16-3. Location of Minority Populations and Sensitive Receptors

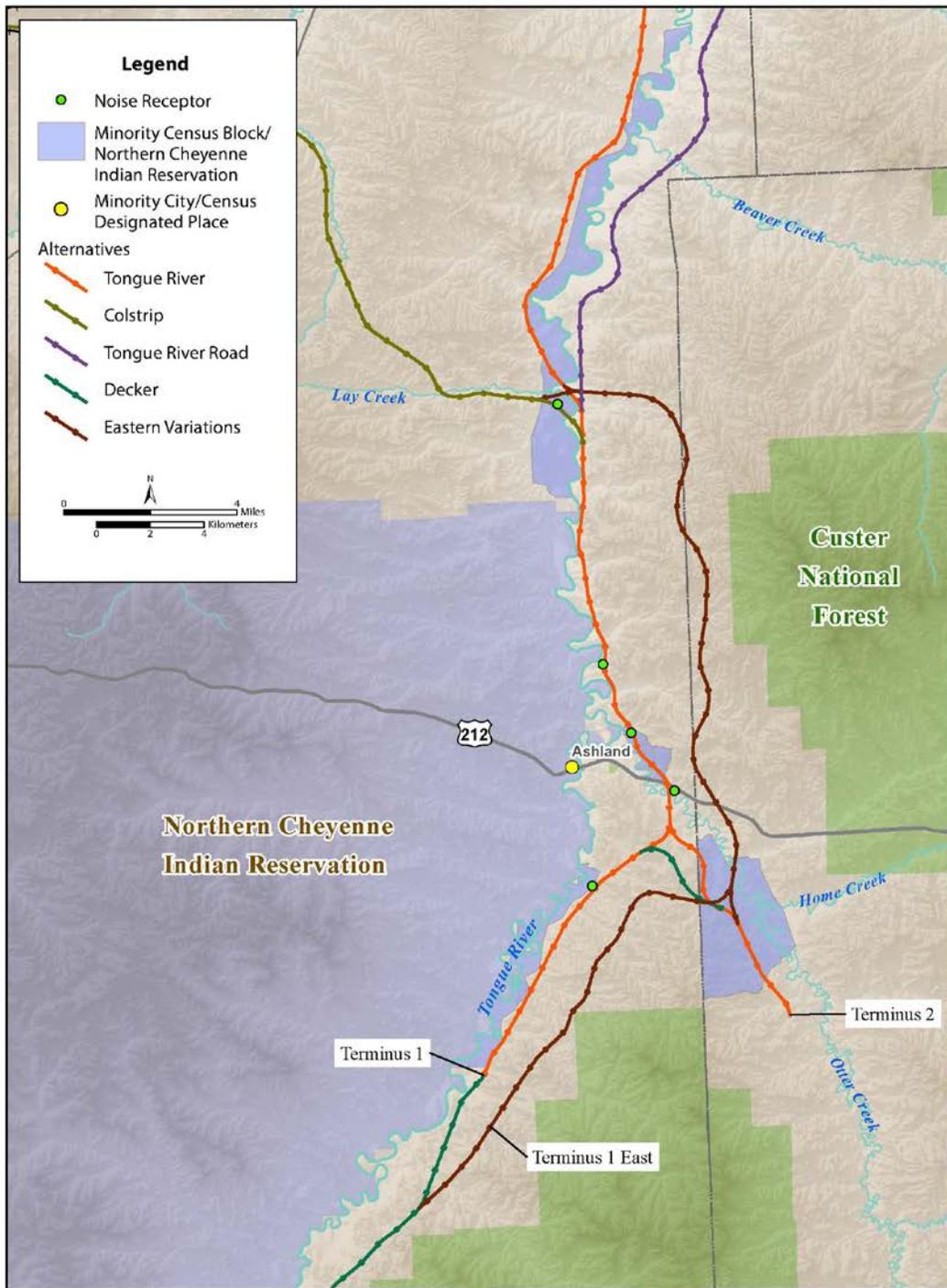


Figure 16-4. Location of Minority Populations and Sensitive Receptors

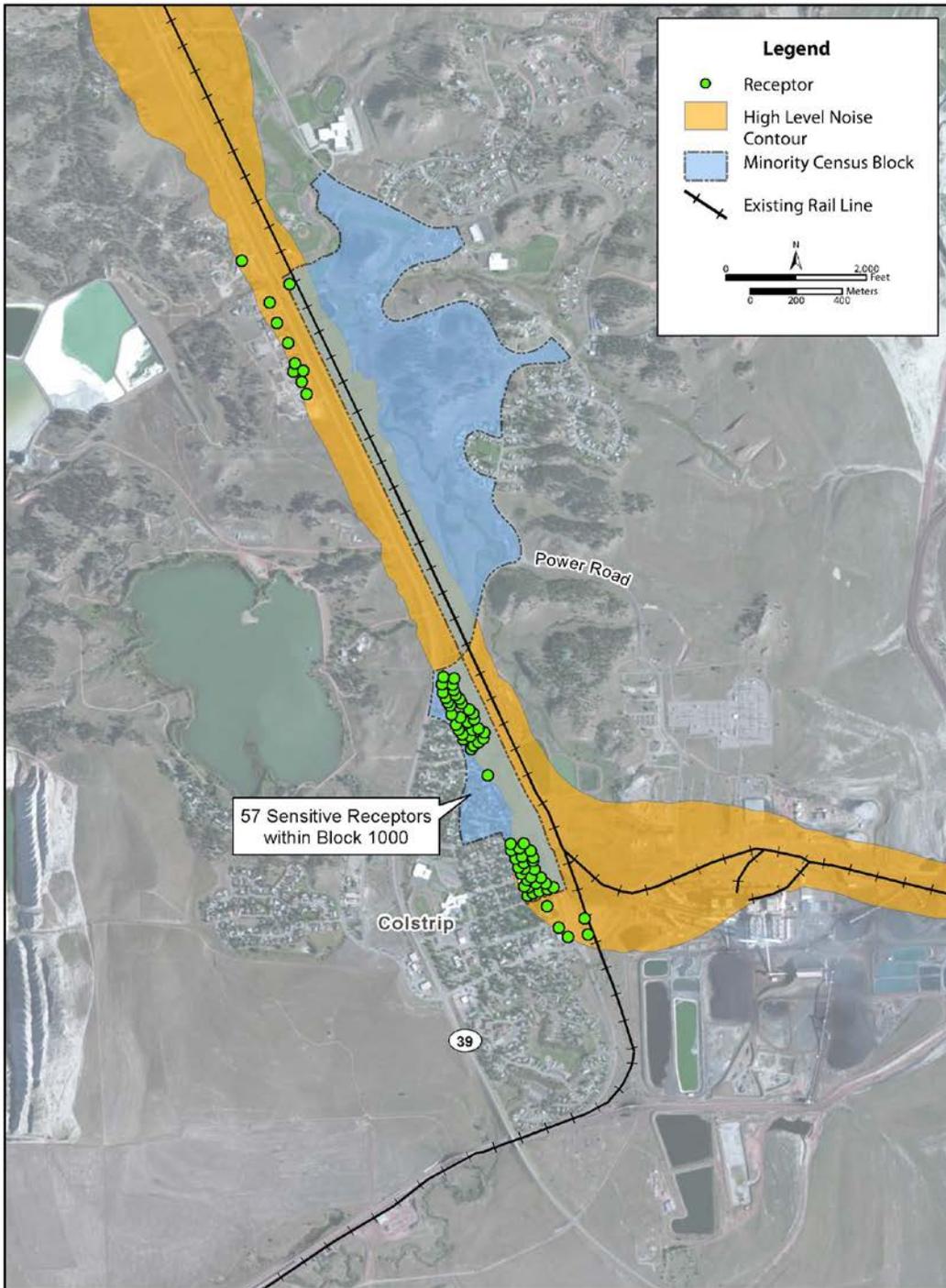


Figure 16-5. Location of Minority Populations and Sensitive Receptors

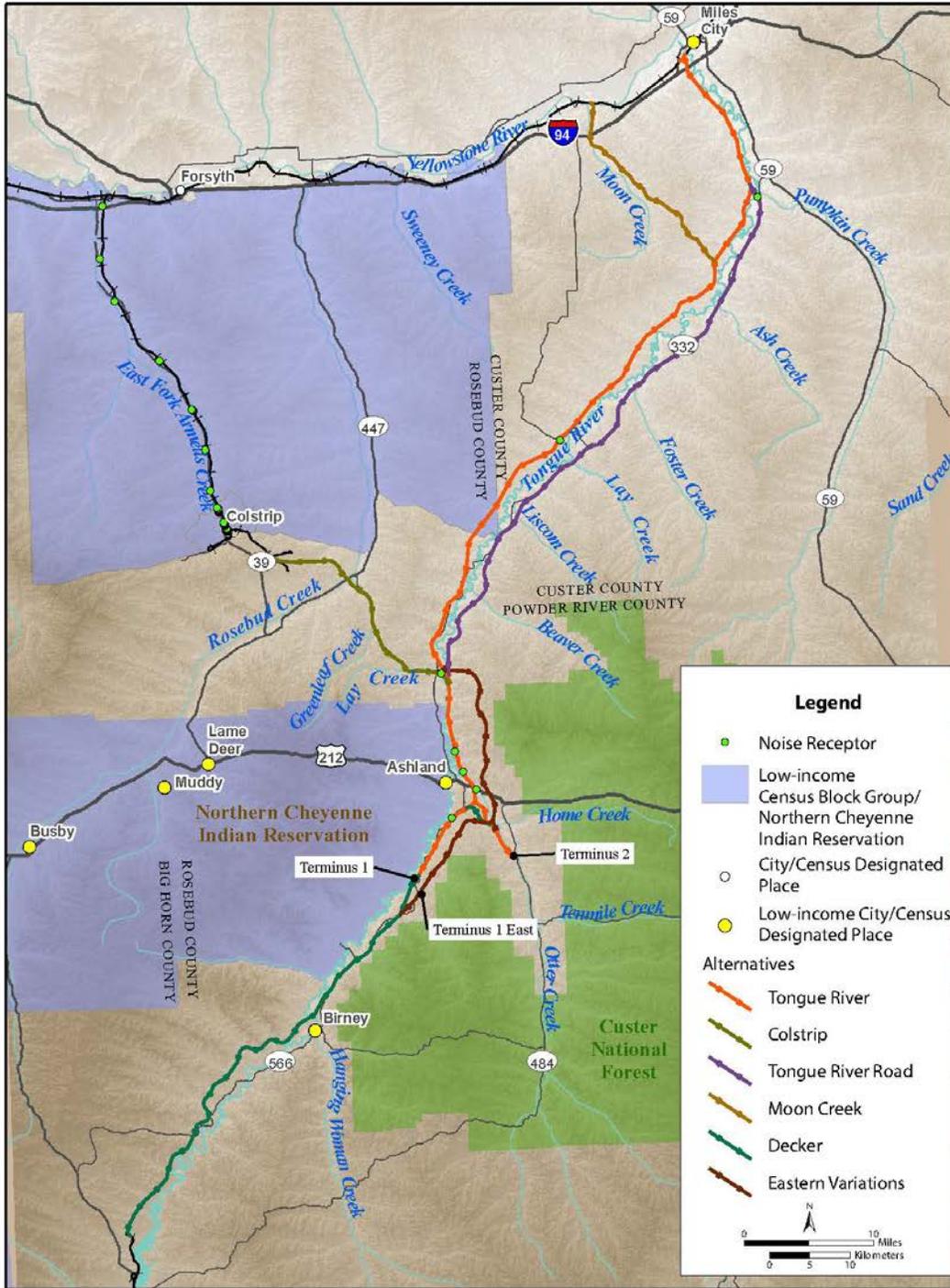


Figure 16-6. Location of Low-Income Populations and Sensitive Receptors Within the Study Area

16.5.2.1 Tongue River Alternatives

Tongue River Alternative

Under the Tongue River Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

Four receptors are located in the high rail traffic noise contour, each in a different block group. Two of the receptors (50 percent) are located in minority populations: Census Block 2266 of Block Group 2, Census Tract 2 in Rosebud County, with an American Indian minority population; and Census Block 2232 of Block Group 2, Census Tract 2, in Rosebud County, with a Hispanic minority population. Both census blocks have small populations, 14 and 13 people, respectively (U.S. Census Bureau 2010). None of the four receptors is located in low-income populations.

Because 50 percent of the affected receptors are in minority populations, and because 50 percent is higher than the share of minorities in the study area and the state, OEA determined that the Tongue River Alternative would have a disproportionately high and adverse noise impact on minority populations under the high coal production scenario.

Medium and Low Rail Traffic Noise Contours

One receptor is located in the medium and low rail traffic noise contours. This receptor is not in a minority population, nor in a low-income population. OEA determined that the Tongue River Alternative would not have a disproportionately high and adverse noise impact on minority populations under the medium or low coal production scenario.

Tongue River East Alternative

Under the Tongue River East Alternative, no sensitive receptors would be located in census blocks with resident populations. OEA determined that the Tongue River East Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under any of the coal production scenarios.

16.5.2.2 Colstrip Alternatives

Colstrip Alternative

Under the Colstrip Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

Seventy-five receptors are located in the high rail traffic noise contour. Of these, 61 (81 percent) are in one minority population: the Census Block 1000, in Block Group 1, Census Tract 3 in the City of Colstrip in Rosebud County. The main minority group is that of American Indians. (Figure 16-5) (U.S. Census Bureau 2010). The remaining 14 receptors are not in minority populations. Of the 75 receptors, 13 (17 percent) are located in low-income populations.

Because 81 percent of the affected receptors are in a minority population, and because 81 percent is higher than the share of minorities in the study area and the state, OEA determined that the Colstrip Alternative would have a disproportionately high and adverse noise impact on minority populations, under the high rail traffic noise scenario. Similarly, because 17 percent of the affected receptors are in a low-income population, and because 17 percent is higher than the share of low-income households in the state (although not in the study area), OEA determined that the Colstrip Alternative would have a disproportionately high and adverse noise impact on low-income populations under the high coal production scenario.

Medium Rail Traffic Noise Contour

Fifty-four receptors are located in the medium rail traffic noise contour. Of these, 44 (81 percent) are in the same minority population identified above under the high rail traffic noise contour. The remaining 10 receptors are not in minority populations. Of the 54 receptors, 10 (19 percent) are located in low-income populations.

Because 81 percent of the affected receptors is higher than the share of minorities in the study area and the state, and because 19 percent is higher than the share of low-income households in the state and in the study area, OEA determined that the Colstrip Alternative would have a disproportionately high and adverse noise impact on low-income populations under the medium coal production scenario.

Low Rail Traffic Noise Contours

Thirty-three receptors are located in the low rail traffic noise contour. Of these, 27 (82 percent) are located in the same minority population identified above under the high and medium rail traffic noise contours. The remaining six are not in minority populations. Of the 33 receptors, six (18 percent) are located in low-income populations.

Because 82 percent is higher than the share of minorities in the study area and the state, and because 18 percent is higher than the share of low-income households in the state (although not in the study area), OEA determined that the Colstrip Alternative would have a disproportionately high and adverse noise impact on minority and low-income populations under the low coal production scenario.

Colstrip East Alternative

Under the Colstrip East Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

Seventy receptors are located in the high rail traffic noise contour. Of these, 58 (83 percent) are in minority populations (all but one in the Census Block 1000, Block Group 1, Census Tract 3 in the City of Colstrip in Rosebud County, with the main minority group being that of American Indians; Figure 16-5) (U.S. Census Bureau 2010). The remaining 12 receptors are not in minority populations. Of the 70 receptors, 13 (19 percent) are located in low-income populations.

Because 83 percent is higher than the share of minorities in the study area and the state, and because 19 percent is higher than the share of low-income households in the state and in the study area, OEA determined that the Colstrip East Alternative would have a disproportionately high and adverse noise impact on minority and low-income populations under the high coal production scenario.

Medium Rail Traffic Noise Contour

Fifty-three receptors are located in the medium rail traffic noise contour. Of these, 43 (81 percent) are in minority populations and 10 (19 percent) are located in low-income populations. Because 81 percent is higher than the share of minorities in the study area and in the state, and because 19 percent is higher than the share of low-income households in the state and in the study area, OEA determined that the Colstrip East Alternative would have a disproportionately high and adverse noise impact on minority and low-income populations under the medium coal production scenario.

Low Rail Traffic Noise Contours

Thirty-two receptors are located in the low rail traffic noise contour. Of these, 27 (84 percent) are in minority populations and 6 (19 percent) are located in low-income populations. Because 84 percent is higher than the share of minorities in the study area and the state, and because 19 percent is higher than the share of low-income households in the state and in the study area, OEA determined that the Colstrip East Alternative would have a disproportionately high and adverse noise impact on minority and low-income populations under the low coal production scenario.

16.5.2.3 Tongue River Road Alternatives

Tongue River Road Alternative

Under the Tongue River Road Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

Five receptors are located in the high rail traffic noise contour. Of these, two (40 percent) are in two minority populations (Census Block 2266 of Block Group 2, Census Tract 2 in Rosebud County, with an American Indian minority population; and Census Block 2232 of Block Group 2, Census Tract 2, also in Rosebud County with a Hispanic minority population) (U.S. Census Bureau 2010). No receptors are located in low-income populations.

Because 40 percent is higher than the share of minorities in the study area and the state, OEA determined that the Tongue River Road Alternative would have a disproportionately high and adverse noise impact on minority populations under the high rail traffic noise contour.

Medium Rail Traffic Noise Contour

Two receptors are located in the medium rail traffic noise contour. Neither is located in minority or low-income populations. Therefore, OEA determined that the Tongue River Road Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under the medium coal production scenario.

Low Rail Traffic Noise Contour

One receptor is located in the low rail traffic noise contour. It is not in a minority or low-income population. Therefore, OEA determined that the Tongue River Road Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under the low coal production scenario.

Tongue River Road East Alternative

Under the Tongue River Road East Alternative, sensitive receptors would be located in census blocks with resident populations as described below.

High and Medium Rail Traffic Noise Contours

One receptor is located in the high and medium rail traffic noise contours. This receptor is not located in a minority or low-income population. Therefore, OEA determined that the Tongue River Road East Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under the high and medium coal production scenarios.

Low Rail Traffic Noise Contour

No receptors are located in the low rail traffic noise contour. Therefore, OEA determined that the Tongue River Road East Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under the low coal production scenarios.

16.5.2.4 Moon Creek Alternatives

Moon Creek Alternative

Under the Moon Creek Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

Four receptors are located in the high rail traffic noise contour. Of these, two (50 percent) are in two minority populations (Census Block 2266 of Block Group 2, Census Tract 2 in Rosebud County, with an American Indian minority population; and Census Block 2232 of Block Group 2, Census Tract 2, also in Rosebud County with a Hispanic minority population) (U.S. Census Bureau 2010). No receptors are located in low-income populations.

Because 50 percent is higher than the share of minorities in the study area and the state, OEA determined that the Moon Creek Alternative would have a disproportionately high and adverse noise impact on the two minority populations under the high coal production scenario.

Medium and Low Rail Traffic Noise Contours

One receptor is located in the medium and low rail traffic noise contours. This receptor is not located in minority or low-income populations. Therefore, OEA determined that the Moon Creek Alternative would not have a disproportionately high and adverse noise impact on minority populations under the medium and low coal production scenarios.

Moon Creek East Alternative

Under the Moon Creek East Alternative, no sensitive receptors would be located in census blocks with resident populations. Therefore, OEA determined that the Moon Creek East Alternative would not have a disproportionately high and adverse noise impact on minority or low-income populations under the high, medium, or low coal production scenarios.

16.5.2.5 Decker Alternatives

Decker Alternative

Under the Decker Alternative, sensitive receptors would be located in census blocks with resident populations as follows.

High Rail Traffic Noise Contour

One receptor is located in the high rail traffic noise contour. This receptor (100 percent) is located in a minority population (Census Block 2266 of Block Group 2, Census Tract 2 in Rosebud County, with an American Indian minority population and a total population of 13 residents in 2000) (U.S. Census Bureau 2010). This receptor is not located in a low-income population. Because 100 percent is higher than the share of minorities in the study area and the state, OEA determined that the Decker Alternative would have a disproportionately high and adverse noise impact on this minority population under the high coal production scenario.

Medium and Low Rail Traffic Noise Contours

No receptors are located in the medium and low rail traffic noise contours. Therefore, OEA determined that the Decker Alternative would not have a disproportionately high and adverse noise impact under the medium and low coal production scenarios.

Decker East Alternative

Under the Decker East Alternative, no sensitive receptors are located in the low, medium, or high rail traffic noise contours. Therefore, OEA determined that the Decker East Alternative would not result in a disproportionately high and adverse noise impact on minority or low-income populations.

16.5.3 No-Action Alternative

Under the No-Action Alternative, TRRC would not construct and operate the proposed Tongue River Railroad, and there would be no impacts on minority or low-income populations from construction or operation of the proposed rail line.

16.5.4 Mitigation and Unavoidable Environmental Consequences

To avoid or minimize impacts on minority and low-income populations from the proposed rail line, OEA is recommending that the Board impose eight operation-related mitigation measures specific to noise impacts (Chapter 19, Section 19.2.12, *Environmental Justice*). These measures would require TRRC to develop a construction noise and vibration plan, minimize construction-related noise in residential areas, employ mitigation at receptors

where noise thresholds would be exceeded, consult with communities along the Colstrip Subdivision to implement quiet zones, install a rail lubrication system, comply with federal noise limits, maintain rail cars, and maintain the rail and rail bed.

Even with the implementation of OEA’s recommended mitigation measures, construction and operation of the proposed rail line could cause unavoidable high and adverse noise impacts on minority populations under the Tongue River Alternative, Colstrip Alternative, Colstrip East Alternative, Tongue River Road Alternative, Moon Creek Alternative and Decker Alternatives, and on low-income populations under the Colstrip Alternatives. OEA concludes that these impacts would be high and adverse.

16.6 Applicable Regulations

Different federal, state, and local jurisdictions are responsible for the regulation of environmental justice. These jurisdictions and the regulations that govern environmental justice are described in Table 16-4.

Table 16-4. Regulations and Guidance Related to Environmental Justice

Regulation	Explanation
Federal	
National Environmental Policy Act (42 U.S.C. § 4321 <i>et seq.</i>)	Requires the consideration of potential environmental effects, including potential effects of (or on) contaminated sites, in the environmental impact statement for any proposed major federal agency action. NEPA implementation procedures are set forth in the President’s Council on Environmental Quality’s Regulations for Implementing NEPA (40 C.F.R. Part 1500).
Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 59 Fed. Reg. 7629 (February 16, 1994)	Directs federal agencies to: <i>[P]romote nondiscrimination in Federal programs substantially affecting human health and the environment, and provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.</i> Does not apply to independent agencies such as the Surface Transportation Board. CEQ and USEPA have oversight for compliance with this executive order.
CEQ 1997: Environmental Justice Guidance under the National Environmental Policy Act 1997)	Assists federal agencies in meeting their environmental justice commitments under NEPA. Defines <i>minority</i> and <i>low-income</i> populations.
State and Local	
No state or local regulations apply to environmental justice populations.	
Notes: U.S.C. = United States Code; NEPA = National Environmental Policy Act; C.F.R. = Code of Federal Regulations; Fed. Reg. = <i>Federal Register</i> ; CEQ = Council on Environmental Quality	

