

3.14 Environmental Justice

This section describes the impacts on minority and low-income populations and American Indian tribes that could result from construction and operation of the proposed rail line. The subsections that follow describe the environmental justice study area, analysis methods, and affected environment; assess potential high and adverse impacts of the Action Alternatives and the No-Action Alternative on minority populations, low-income populations, and American Indian tribes; and evaluate whether high and adverse impacts would be borne disproportionately by minority populations, low-income populations, or American Indian tribes.

3.14.1 Analysis Methods

This subsection identifies the study area, data sources, and analysis methods OEA used to analyze environmental justice.

3.14.1.1 Study Area

The study area for environmental justice includes all census block groups within Carbon, Duchesne, Uintah, and Utah Counties. This study area encompasses the areas in which high and adverse impacts related to the other resource areas considered in this Draft EIS could potentially occur as a result of construction and operation of the proposed rail line. This study area is appropriate because no disproportionately high and adverse human health or environmental impacts on minority or low-income populations, or American Indian tribes would occur outside the four-county environmental justice study area.

3.14.1.2 Data Sources

OEA used census data from the American Community Survey 5-Year Estimate (2012–2017) to characterize the demographics of the census block groups in the study area. OEA used demographic data related to race, ethnicity, and household income below poverty to identify minority, low-income, and American Indian populations in the study area.

3.14.1.3 Analysis Methods

OEA used the following methods to analyze environmental justice in the study area.

- **OEA identified minority populations, low-income populations, and American Indian tribes in the study area.** In consultation with the Cooperating Agencies that participated in the preparation of this Draft EIS, OEA defined minority and low-income populations as census block groups where the percentage of the population that is minority or low-income is either greater than 50 percent or more than 10 percentage points higher than the overall percentage of the reference community. OEA selected the four-county area as the reference community because this area covers both the full geographic extent of expected regional benefits of the proposed rail line and the more localized area near the Action Alternatives where most adverse impacts would occur. The term minority refers to persons who identify on the census questionnaire as American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian, other Pacific Islander, some other race, more than one race, or Hispanic or Latino. Low-income refers

to persons whose median household income is at or below the poverty threshold set by the U.S. Census. In addition, OEA mapped the percentage of the population that identifies solely as American Indian across the four-county study area to locate areas within the study area that have a high proportion of American Indians. OEA assumed that Tribal trust lands in the study area support a population that is predominantly American Indian. For this analysis, OEA opted to access census data directly through GIS rather than through a tool such as EJSCREEN, due to the numerous benefits that GIS analysis offers for back-end data processing, analysis, and mapping of census data.

- **OEA identified all high and adverse impacts.** OEA reviewed the impact analyses for all resource areas assessed in this Draft EIS to identify any high and adverse impacts related to construction and operation of the proposed rail line. For the environmental justice analysis, OEA identified high and adverse impacts where impacts of constructing and operating the proposed rail line would be significant under NEPA or above generally accepted norms and have the potential to adversely affect minority populations, low-income populations, or American Indian tribes. These high and adverse impacts include loss of wetland habitat and permanent changes to surface water hydrology from crossing structures and stream realignments; impacts on biological resources from habitat disturbance and noise; operations-related wayside noise; and locally significant land use changes, including changes related to the permanent loss of irrigated cropland and grazing land, and severance of properties.
- **OEA considered other adverse impacts that the Ute Indian Tribe identified as areas of concern.** Through consultation with the Ute Indian Tribe, OEA identified impacts related to air emissions, vehicle safety and delay, rail operations safety, and cultural resources as areas of concern to the tribe. Although OEA did not determine impacts on these resources to be significant under NEPA, OEA reviewed these resource impacts to determine if impacts would be otherwise high and adverse for tribal members specifically.
- **OEA determined whether high and adverse impacts disproportionately affect minority populations, low-income populations, or American Indian tribes.** Where OEA identified high and adverse impacts that would affect minority populations, low-income populations, or American Indian tribes, OEA evaluated whether those impacts would be disproportionately high and adverse. To make this determination, OEA considered whether the adverse effect was significant under NEPA or above generally accepted norms. OEA also considered whether the affected minority populations, low-income populations, or American Indian tribes would experience exposure to an adverse effect that would be appreciably more severe or greater in magnitude than the adverse effect that the general population in the affected area would experience. In making its determinations, OEA considered the totality of the circumstances, including the benefits that could result from the proposed rail line and application of potential mitigation measures to avoid, minimize, reduce, or compensate for disproportionate adverse effects.

3.14.2 Affected Environment

This subsection identifies the existing environmental conditions related to environmental justice in the study area.

3.14.2.1 Minority Populations

Minorities account for 17.0 percent of the population in the four-county study area. Hispanic or Latino is the largest minority group in the four-county study area, accounting for 11 percent of the total population. American Indians represent 7 percent of the population in Uintah County, 4 percent of the population in Duchesne County, and 12 percent of the population in the tribal census block groups that comprise the Uintah and Ouray Reservation and off-reservation trust lands (Table 3.14-1).

Table 3.14-1. Minority Group Representation in the Study Area

		Percent Population							
		Non-Hispanic or Latino							
County	Population	Hispanic/ Latino	White	Black	Asian	American Indian	Hawaiian/ Pacific Islander	Other ^a	Percent Minority
Carbon	20,512	13	83	1	<1	1	<1	1	16.7
Duchesne	20,259	8	85	<1	<1	4	<1	2	14.6
Uintah	36,343	8	82	<1	1	7	<1	1	18.1
Utah	576,496	11	83	1	1	<1	1	2	17.0
Total^b	653,610	11	83	1	1	1	1	2	17.0
Uintah and Ouray^c	26,063	7	78	<1	1	12	<1	1	21.8

Notes:

^a Includes categories of “some other race” and “more than one race.”

^b Represents the total or overall percentage for the four-county study area.

^c Data reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and off-reservation trust lands.

Pop. = population

To identify locations in the study area that have a higher percent minority population, OEA prepared a gradient map that shows the minority percentage of each census block group in the study area (Figure 3.14-1). OEA clipped the mapped census data to exclude federal and state land because OEA assumed that people do not reside on those lands. OEA also clipped census block group boundaries to avoid Tribal trust lands and assumed that persons residing on Tribal trust lands identify predominantly as American Indian. This assumption is appropriate due to the low population density in Carbon, Duchesne, and Uintah Counties. As a result of the low population density, the census block groups in the vicinity of Tribal trust lands are geographically large and include both reservation and off-reservation trust lands, which dilutes the representation of American Indian populations within those census block groups. This means that American Indian populations might not be identified on some Tribal trust lands if OEA were to rely on census data alone.

Figure 3.14-2 presents a gradient map showing the percent of the population in each census block group that is American Indian alone. This map is consistent with census data reported in Table 3.14-1 showing that census block groups with the highest percent American Indian are located in Uintah County. Figure 3.14-3 shows the census block groups in the vicinity of the Action Alternatives where OEA identified a minority population.

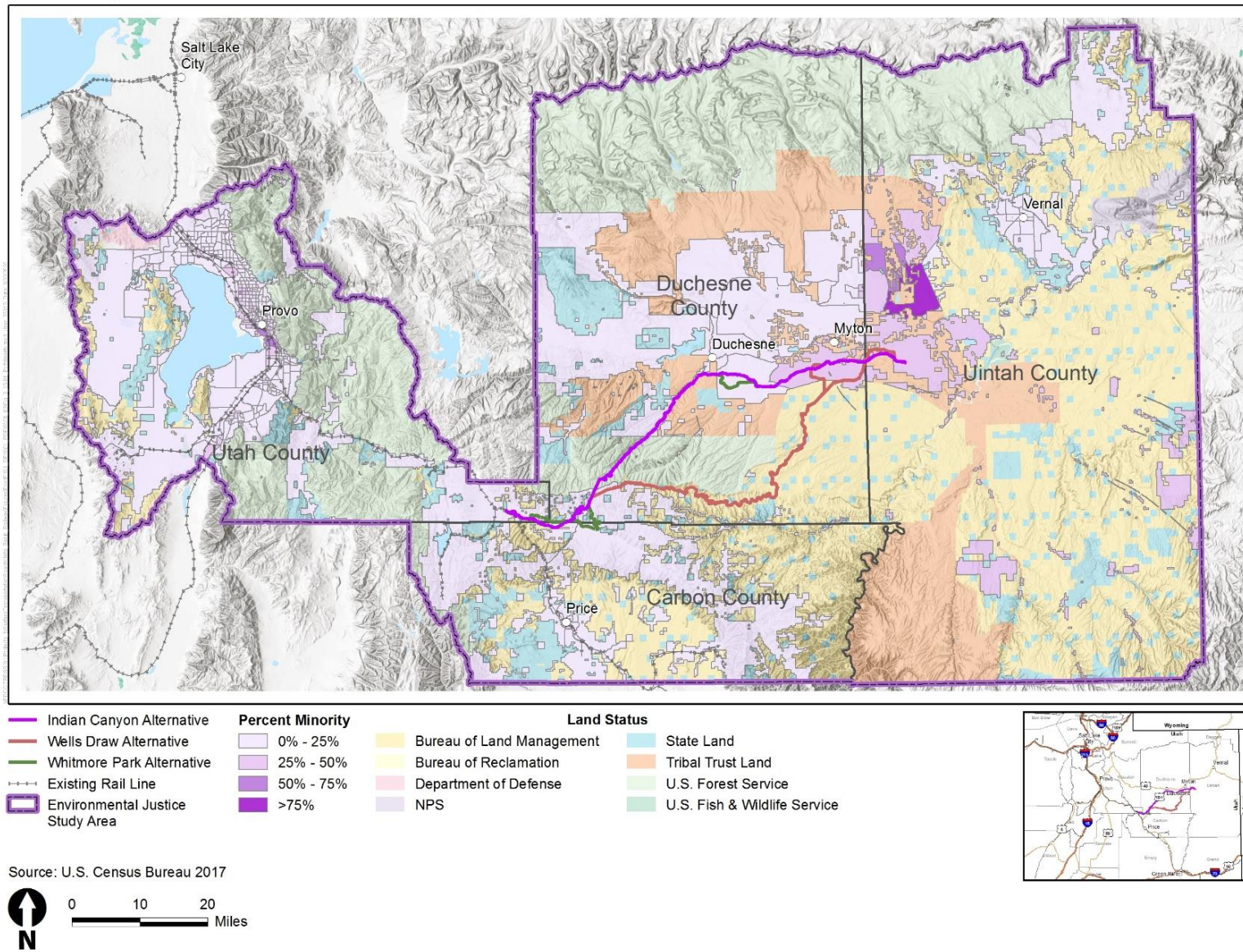
Figure 3.14-1. Percent Minority by Census Block Group

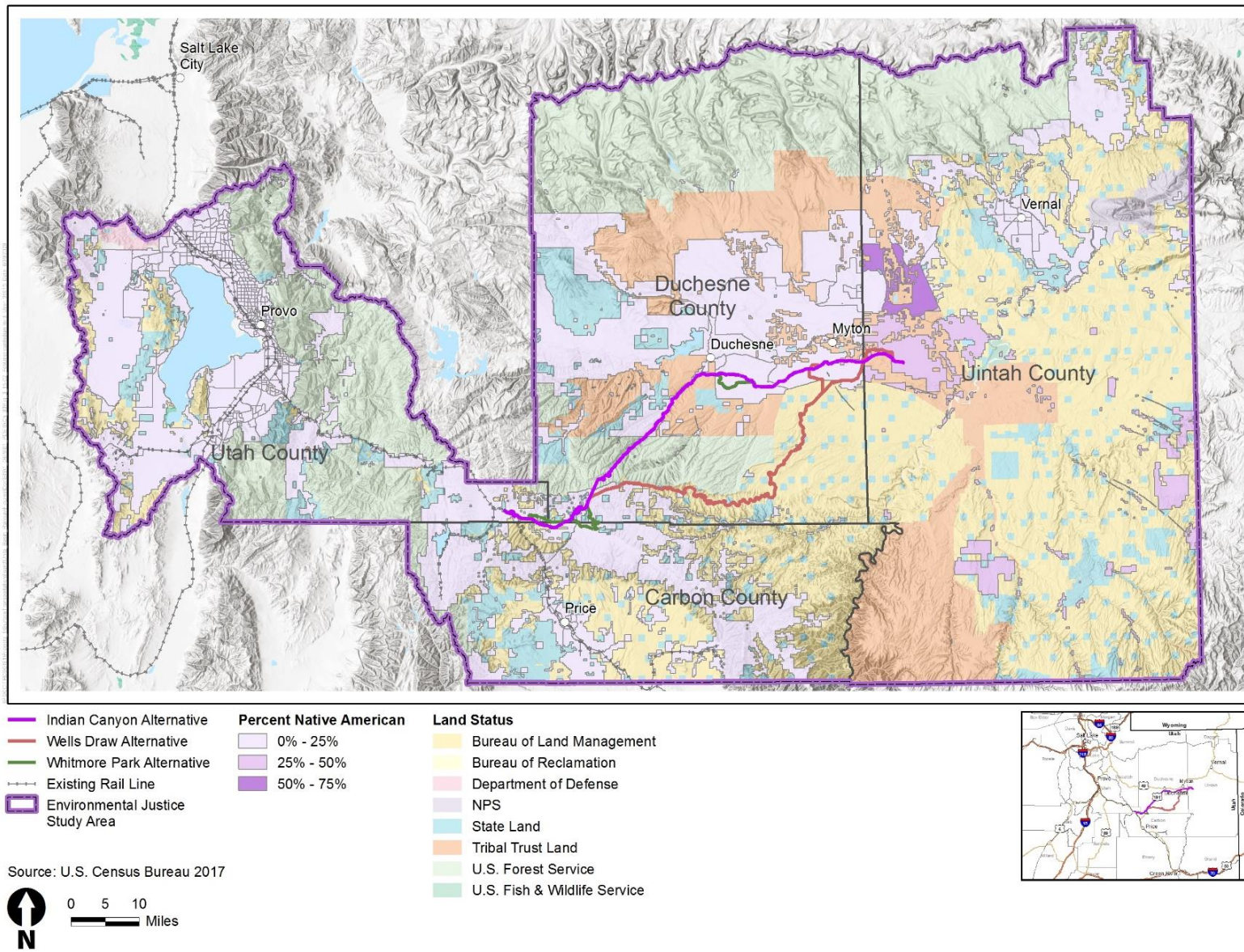
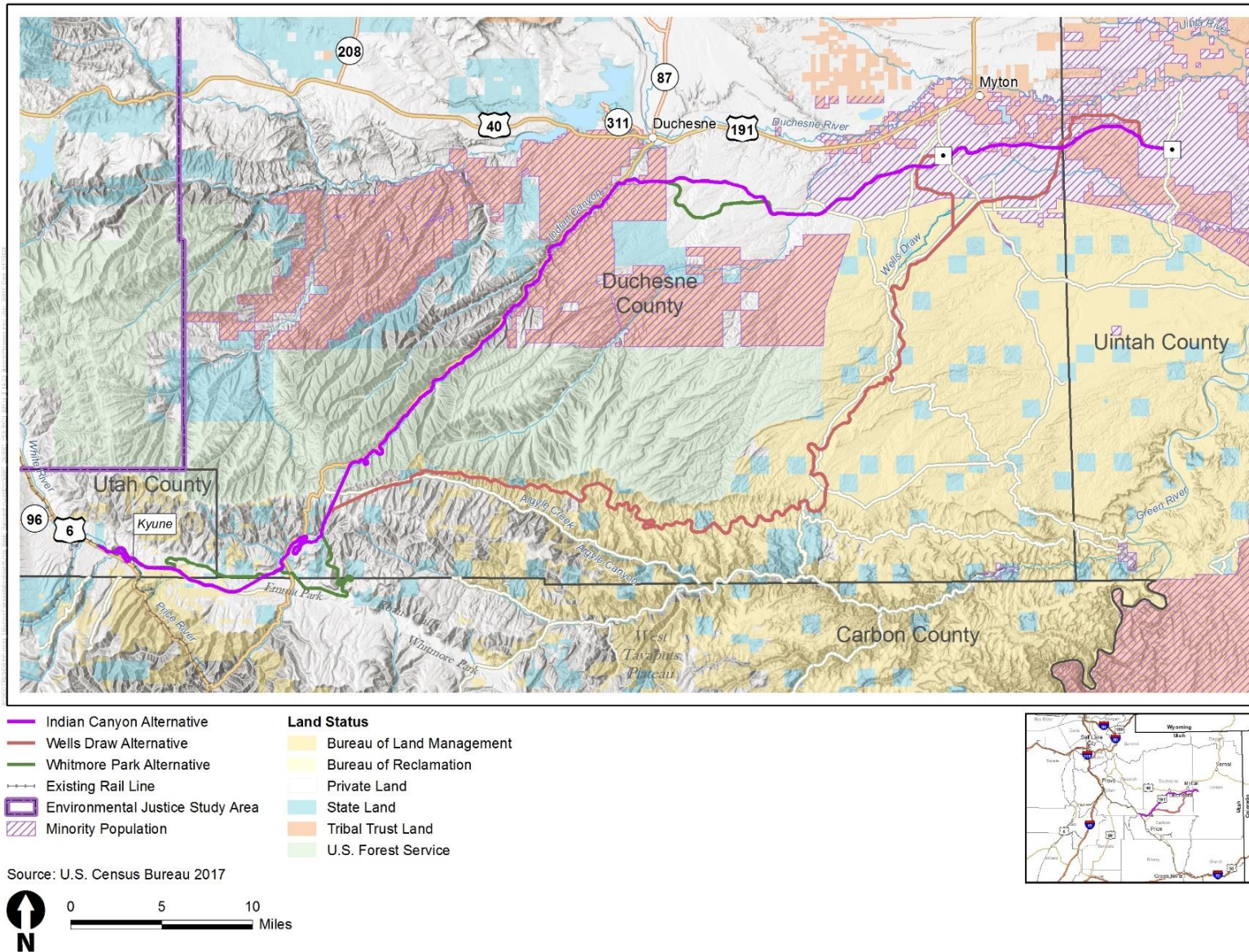
Figure 3.14-2. Percent American Indian by Census Block Group

Figure 3.14-3. Minority Populations Present

3.14.2.2 Low-Income Populations

Median household income in the study area ranges from approximately \$47,000 in Carbon County to approximately \$67,000 in Uintah and Utah Counties (Table 3.14-2). The percent of households that are low-income range from approximately 12 percent in Duchesne, Uintah, and Utah Counties to approximately 16 percent in Carbon County (Table 3.14-2). Median household income within the tribal census block groups that comprise the Uintah and Ouray Reservation and off-reservation trust lands is \$62,756 and 12.8 percent of households are low-income.

Table 3.14-2. Median Household Income and Percent of Households that are Low-Income in the Study Area

County	Households	Median Household Income	Percent Low-Income ^b
Carbon	7,841	\$46,994	15.8
Duchesne	6,650	\$63,000	12.3
Uintah	10,616	\$67,012	12.0
Utah	155,664	\$67,042	11.9
Total^a	180,771	--	12.1
Uintah and Ouray^c	8,148	\$62,756	12.8

Notes:

^a Represents the total or overall percentage for the four-county study area.

^b Calculated as the percent of households with household income below poverty.

^c Data reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and off-reservation trust lands.

To identify locations in the study area that have a higher percent of low-income households, OEA prepared a gradient map that shows the percent of households with household income below poverty in each census block group in the study area (Figure 3.14-4). Where census block group boundaries extend onto federal, state, or Tribal trust land, OEA clipped the mapped census data to the private land boundary as was done for the presentation of the percentage of minority populations. Figure 3.14-4 shows that census block groups with higher percentages of low-income households are located east of Price in Carbon County, in the vicinity of Myton in Duchesne County, and northeast of Myton in Uintah County.

As noted above, OEA defined minority and low-income populations as census block groups where the percentage of the population that is minority or low-income is either greater than 50 percent or more than 10 percentage points higher than the overall percentage in the four-county study area. Within the four-county study area, 12.1 percent of households are low-income. Therefore, OEA identified a census block as a low-income population if more than 22.1 percent of households have an income at or below the poverty threshold. Figure 3.14-5 shows the census block groups in the vicinity of the Action Alternatives where OEA identified a low-income population.

Figure 3.14-6 combines the layers for minority populations and low-income populations to show where minority and/or low-income populations are present in the study area. The merged layer showing where OEA identified minority and/or low-income populations is the base layer for review of environmental justice impacts.

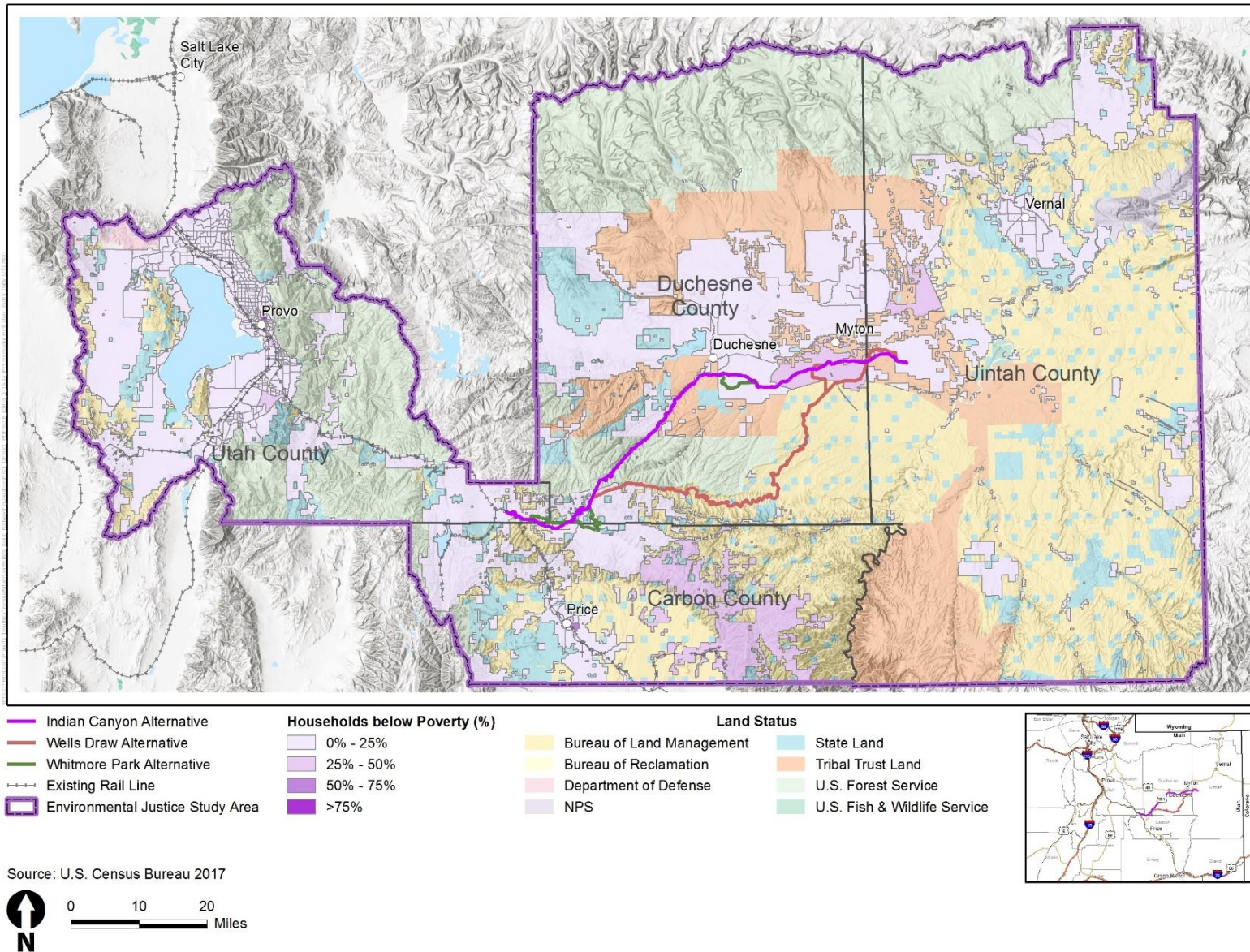
Figure 3.14-4. Percent Low-Income Households by Census Block Group

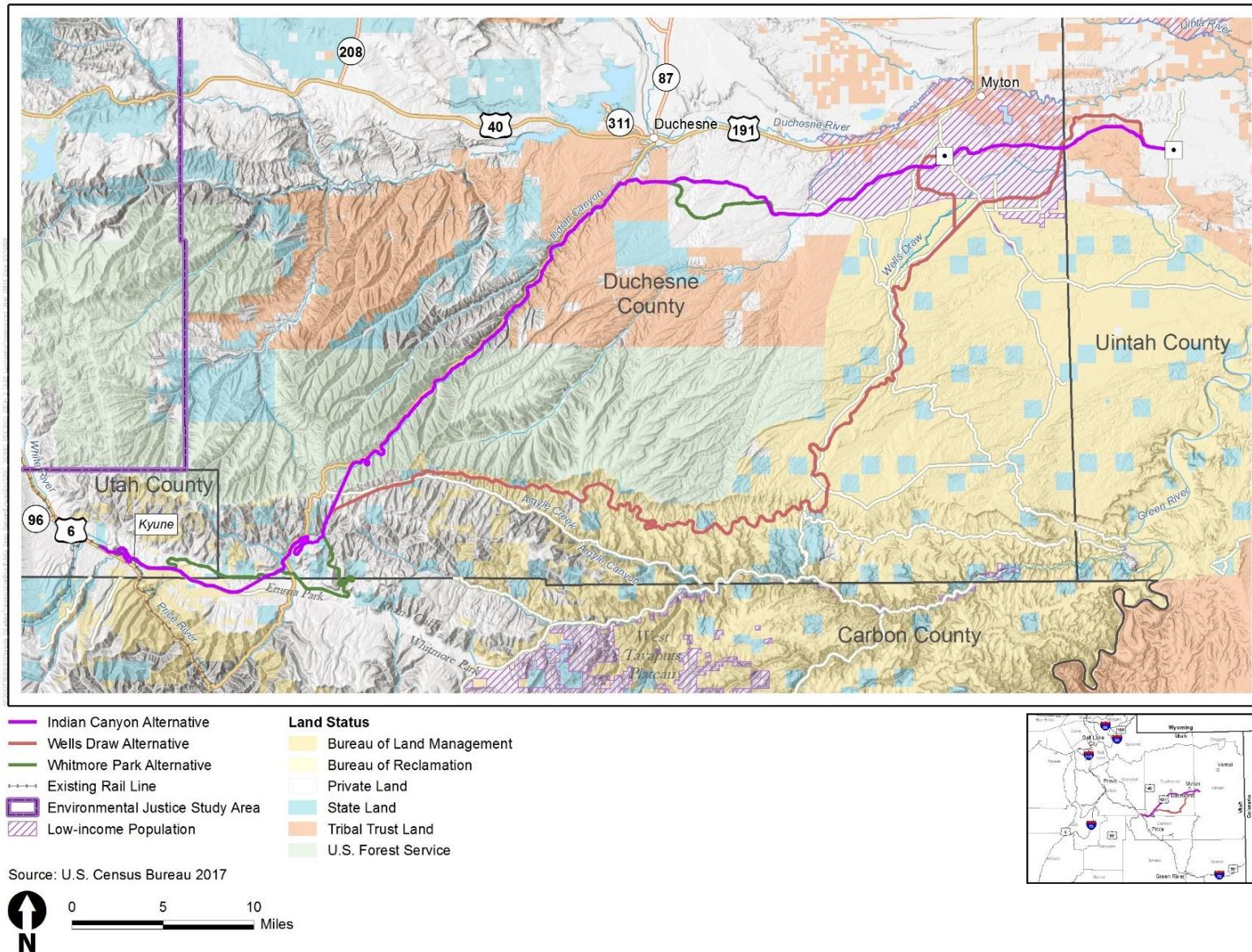
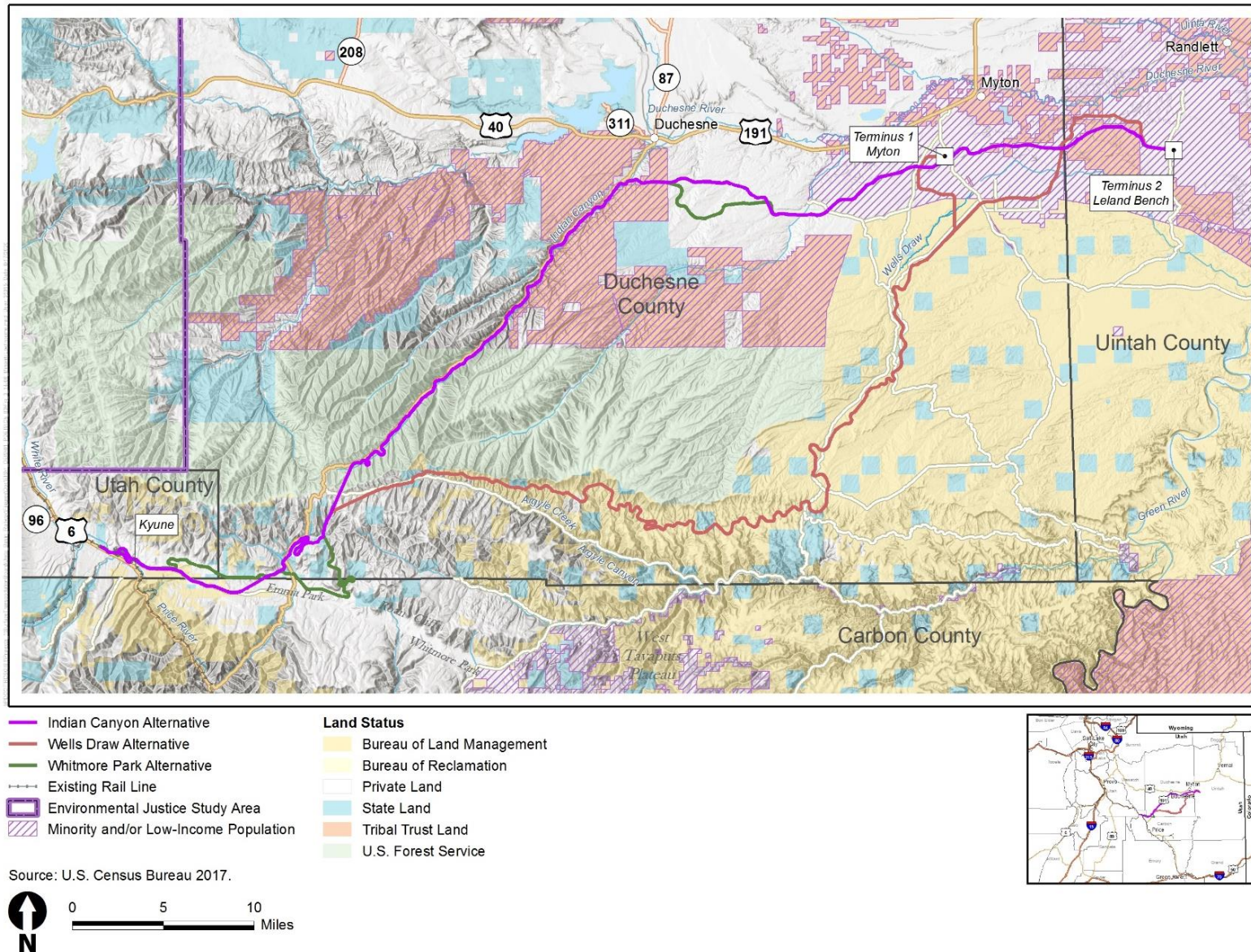
Figure 3.14-5. Low-Income Population Present

Figure 3.14-6. Minority and/or Low-Income Population Present

3.14.3 Environmental Consequences

Construction and operation of the proposed rail line could result in environmental justice impacts. This subsection first presents the potential impacts that would be the same for all three Action Alternatives and then compares the potential impacts that would be different across the Action Alternatives. For comparison purposes, this subsection also discusses environmental justice under the No-Action Alternative.

3.14.3.1 Impacts Common to All Action Alternatives

This subsection discusses potential environmental justice impacts that would be the same across the three Action Alternatives.

Construction

Water Resources

Due to the large number of surface water crossings and the large area of potentially affected wetlands, OEA concludes that unavoidable impacts on surface waters and wetlands—including and in particular, the loss of wetland habitat and permanent changes to surface water hydrology from crossing structures and stream realignments—would be significant for any of the Action Alternatives. Stream realignments and crossing structures, including bridges and culverts, would be distributed across the full extent of all the Action Alternative alignments and would not disproportionately affect minority populations or low-income populations. As discussed in Section 3.3, *Water Resources*, the Coalition has proposed eight voluntary mitigation measures to address impacts on water resources, and OEA is recommending additional mitigation measures to address those impacts. Those mitigation measures include a commitment from the Coalition to obtain a Clean Water Act Section 404 permit authorization from the Corps prior to initiating construction activities in wetlands and other jurisdictional waters of the United States, and to comply with all Section 404 permit conditions (VM-25). The Coalition also commits to minimizing impacts on wetlands to the extent practicable in the final design of the selected alternative (VM-27). If the Coalition's voluntary mitigation measures and OEA's additional recommended mitigation measures are implemented, OEA concludes that impacts on water resources would not result in disproportionately high and adverse impacts on minority or low-income populations under any of the Action Alternatives.

Air Quality

Minority and low-income populations are present in the Denver Metro/North Front Range air quality nonattainment area that includes the eastern ends of all the Action Alternatives. Construction of any of the Action Alternatives would emit air pollutants and greenhouse gases. Construction equipment, trucks, and workers' personal vehicles used to commute to and from construction areas would emit diesel and gasoline exhaust, which contain various air pollutants, including carbon monoxide, nitrogen oxides, and particulate matter. Exhaust emissions and other air emissions from construction activities would be temporary and, at any given time, would occur only where construction is occurring or along roads traveled by construction vehicles, which are not residential areas. As discussed in Section 3.7, *Air Quality and Greenhouse Gases*, the Coalition has proposed two mitigation measures to minimize air quality impacts during construction, including a

commitment to consult with the Ute Indian Tribe in implementing appropriate fugitive dust controls (VM-23). OEA is also recommending additional mitigation measures to minimize impacts related to air quality and greenhouse gases. If those recommended mitigation measures are implemented, OEA concludes that air emissions from construction activities would not significantly affect air quality and therefore would not result in disproportionately high and adverse impacts on minority or low-income populations or American Indian tribes.

Cultural Resources

Construction of any of the Action Alternatives would result in impacts on cultural resources. Pursuant to Section 106 of the National Historic Preservation Act, OEA is adopting a phased approach for identifying historic properties and assessing effects. OEA is developing a PA in consultation with the Utah SHPO, the Ute Indian Tribe through its Cultural Rights and Protection Department and other Section 106 consulting parties that will set forth how identification of historic properties and the assessment of effects would proceed if the Board were to authorize an Action Alternative, and how adverse effects on historic properties would be resolved. Based on the preliminary analysis conducted to date, OEA concludes that the three Action Alternatives would affect similar numbers of identified cultural resources. Because the APE has not been surveyed comprehensively, OEA concludes that additional cultural resources, such as previously unidentified archeological sites and rock imagery sites, are also likely to be present in the APE. It is likely that many of these unidentified cultural resources are of cultural significance to the Ute Indian Tribe and that adverse effects to those resources would, in the absence of mitigation, be a disproportionately high and adverse impact on the tribe.

The PA that OEA is developing in consultation with the Ute Indian Tribe, the SHPO, and other Section 106 consulting parties will establish the process for avoiding, minimizing, or mitigating adverse effects to cultural resources in a manner that is consistent with the practices and preferences of the Ute Indian Tribe. The Coalition has committed to comply with the terms of the PA being developed through Section 106 consultation (VM-43) and OEA intends to invite the Coalition to become an invited signatory to the PA. Because implementation of the PA would resolve adverse effects on cultural resources of importance to the Ute Indian Tribe, OEA has concluded that impacts on cultural resources could disproportionately affect the tribe but that the effect would not be high and adverse.

3.14.3.2 Impact Comparison between Action Alternatives

This subsection compares the potential environmental justice impacts between the three Action Alternatives.

Construction

Biological Resources

As discussed in Section 3.4, *Biological Resources*, construction of any of the Action Alternatives would temporarily disturb and permanently remove suitable habitat for Pariette cactus (*Sclerocactus brevispinus*) and Uinta Basin hookless cactus (*Sclerocactus wetlandicus*) on the eastern ends of each of the Action Alternatives. The amount of temporary disturbance and permanent removal of suitable habitat would be greatest under the Wells Draw Alternative. The Indian Canyon Alternative and Whitmore Park Alternative could also temporarily disturb or permanently remove

habitat in a Core 2 Conservation Area¹ on Tribal trust land. Pariette cactus and Uinta Basin hookless cactus are endemic to the study area and are culturally important to the Ute Indian Tribe. Because of this importance, OEA believes that adverse effects on Pariette cactus and Uinta Basin hookless cactus would be a disproportionately high and adverse effect for the Ute Indian Tribe. To address impacts on the Pariette cactus and Uinta Basin hookless cactus, OEA is consulting with the U.S. Fish and Wildlife Service to develop appropriate mitigation for those species, pursuant to Section 7 of the Endangered Species Act. In addition, OEA is also recommending mitigation (EJ-MM-1) requiring the Coalition consult with the Ute Indian Tribe regarding impacts on Pariette cactus and Uinta Basin hookless cactus and abide by the requirements of the tribe's *Sclerocactus* Management Plan for project-related activities on Tribal trust land. These activities may include undertaking soil assessments, complying with mitigation measures to be developed in consultation with the tribe, and contributing to a conservation mitigation fund, as appropriate.

Big game species in the study area (bighorn sheep, elk, moose, mule deer, and pronghorn antelope) all have year-long substantial and/or crucial habitat in the rail corridor. Construction of any of the Action Alternatives would temporarily disturb or permanently remove big game habitat in the project footprint² and could potentially disrupt migration corridors. Temporary disturbance and permanent removal of big game habitat would be greatest under the Wells Draw Alternative, followed by the Whitmore Park Alternative, and Indian Canyon Alternative. The Ute Indian Tribe has strong hunting traditions that are still practiced today and that are important to tribal members' way of life. Impacts on big game from habitat disturbance and noise could diminish hunting opportunities and adversely affect tribal hunting traditions. Because this effect would be experienced only by tribal members, OEA concludes that it would represent a disproportionate effect for the Ute Indian Tribe. OEA has concluded, however that the effect would not be high and adverse because large areas of suitable habitat around the Action Alternatives would be sufficient to allow for wildlife movement and dispersal, as discussed in Section 3.4, *Biological Resources*. In its voluntary mitigation, the Coalition has committed to working with UDWR, the Ute Indian Tribe, and adjacent landowners to define areas of the right-of-way that can be left without fences to maintain big game migration corridors (VM-40), which would reduce impacts on big game during operations.

Land Use

As described in Section 3.11, *Land Use and Recreation*, construction of the proposed rail line could result in high and adverse impacts on land use, including the permanent loss of irrigated cropland and grazing land, and the severance of properties. The locations of identified ranching and farming operations relative to minority populations, low-income populations, and American Indian tribes are shown on Figure 3.14-7. The ranching and farming operations that would be most affected are predominantly located in Indian Canyon or on the western end of the Action Alternatives, with the

¹ A *Core 2 Conservation Area* for cactus is an area that contains the densest concentrations of cactus with a 1,000-meter buffer using a kernel density analysis.

² The *rail line footprint* includes the area of the railbed, as well as the full width of the area cleared and cut or filled. The rail line footprint would also include other physical structures installed as part of the proposed rail line, such as fence lines, communications towers, siding tracks, relocated roads, and power distribution lines. The rail line footprint is the area where rail line operations and maintenance would occur. The area would be permanently disturbed. The *temporary footprint* is the area that could be temporarily disturbed during construction, including areas for temporary material laydown, staging, and logistics. Disturbed areas in the temporary footprint would be reclaimed and revegetated following construction. The *project footprint* is the combined area of the rail line footprint and temporary footprint, both of which would be disturbed during construction, comprising where construction and operations of the proposed rail line would occur.

Whitmore Park Alternative having the greatest effect, followed by the Indian Canyon Alternative, and the Wells Draw Alternative. As discussed in Section 3.11, *Land Use and Recreation*, OEA is recommending additional mitigation measures related to land use, including a measure requiring the Coalition to implement the requirements of the Ute Indian Tribe imposed through negotiations for their consent to a grant of right-of-way across Uintah and Ouray Indian Reservation lands (LUR-MM-2). These measures are in addition to the five voluntary mitigation measures the Coalition has committed to implementing to reduce impacts on land use (VM-44, VM-45, VM-46, VM-47, VM-48). If those mitigation measures are implemented, and because the greatest effects on ranching and farming operations would occur outside areas identified as containing minority populations, low-income populations or American Indian tribes, OEA has determined that land use changes related to permanent loss of irrigated cropland and grazing land, and the severance of properties would not cause disproportionately high and adverse effects on minority populations, low-income populations, or American Indian tribes.

Socioeconomics

As discussed previously, construction of the proposed rail line would displace or adversely affect current land uses, including ranching and farming operations. Other socioeconomic impacts would include changes in the demand for housing and public services resulting from the influx of construction workers from areas outside of Carbon, Duchesne, and Uintah Counties. As discussed in Section 3.13, *Socioeconomics*, OEA estimates that up to 938 nonlocal construction workers could migrate into communities that are within commuting distance to the Action Alternatives, including the communities of Helper, Price, Wellington, Myton, Roosevelt, Duchesne, Ballard, Vernal, and Naples. This influx of construction workers would be temporary and would not be large enough to significantly affect housing availability or demand for public services, such as law enforcement, fire protection, and emergency health services. Therefore, impacts related to workforce demand for housing and public services would not be high and adverse.

Through government-to-government consultation with the Ute Indian Tribe, OEA learned that the tribe is concerned about quality of life impacts on tribal communities that could result from increased truck traffic, along with potential increases in noise, vehicle exhaust, fugitive dust, and accidents involving trucks and passenger vehicles. In addition, the tribe is concerned that increased truck traffic would result in road damage and a need for increased road maintenance. OEA's analysis for this Draft EIS did not identify high and adverse impacts from increased truck traffic during construction of the proposed rail line. Section 3.15, *Cumulative Impacts*, discusses potential impacts from increased truck traffic and other impacts related to potential future oil and gas development in the Basin.

As discussed in Section 3-13, *Socioeconomics*, OEA is recommending mitigation measures to ensure that adverse socioeconomic impacts would be minimized, including measures requiring the Coalition to compensate landowners for direct loss of agricultural land and indirect loss of agricultural land from severance and to relocate, replace, or provide compensation for capital improvements that would be displaced by the proposed rail line (SOCIO-MM-1). In addition, the Coalition has committed to numerous voluntary mitigation measures to further reduce construction-related impacts on quality of life in nearby tribal communities. These measures include commitments to control fugitive dust (VM-23), maintain construction equipment to limit construction-related air pollutant emissions (VM-24) and control noise (VM-54), and appoint tribal and community liaisons to consult with affected communities to address concerns regarding construction activities (VM-49, VM-50).

Socioeconomic benefits related to direct, indirect, and induced construction employment and labor income would extend to tribal members that reside in the four-county study area and to American Indian-owned businesses that would benefit from direct, indirect, and induced spending. Construction of the Indian Canyon Alternative or the Whitmore Park Alternative would also generate revenue for the Ute Indian Tribe through payments for rights-of-way across Tribal trust lands. Other revenue streams that would directly benefit the tribe include taxes and business fees that are payable to the tribe.

Construction-related impacts on quality of life would 1) be reduced through OEA's recommended mitigation measures and the Coalition's voluntary mitigation; 2) occur along the entire length of the Action Alternatives and would not be disproportionately borne by minority or low-income populations or American Indian tribes; and 3) occur within the context of offsetting socioeconomic benefits related to construction employment and expenditures. After considering the adverse impacts, voluntary mitigation, and offsetting benefits, OEA has concluded that socioeconomic impacts on minority and low-income populations and American Indian tribes would not be disproportionately high and adverse.

Operations

Vehicle Safety and Delay

The installation of new at-grade road crossings for operation of any of the Action Alternatives would result in impacts on vehicle safety and vehicle delay. Across the three Action Alternatives, the Wells Draw Alternative would involve constructing the most at-grade road crossings and would result in the greatest potential for vehicle accidents and vehicle delays at those new crossings. With implementation of the mitigation set out in Chapter 4, *Mitigation*, OEA concludes that impacts on vehicle safety and delay would not be high and adverse. In addition, as shown on Figure 3.14-7, the Coalition would construct at-grade crossings across the full extent of the Action Alternatives and those crossings would not be concentrated in areas where minority and low-income populations are located. Therefore, OEA concludes that impacts on vehicle safety and delay would not result in disproportionately high and adverse effects on minority and low-income populations or American Indian tribes. The Coalition has proposed voluntary mitigation to address vehicle safety and delay, including a commitment to consult with and obtain approval from the Ute Indian Tribe and appropriate land management agencies for the design and implementation of at-grade road crossings (VM-2). As discussed in Section 3.1, *Vehicle Safety and Delay*, OEA is also recommending additional mitigation measures to ensure that impacts on vehicle safety and delay would be minimized.

Rail Operations Safety

Operation of any of the Action Alternatives would involve a risk of potential rail-related accidents. Across the three Action Alternatives, the Wells Draw Alternative would have the highest probability of experiencing an accident because of its longer length relative to the other Action Alternatives. As discussed in Section 3.2, *Rail Operations Safety*, the Coalition has proposed voluntary mitigation measures related to rail operations safety (VM-1, VM-8, VM-11, VM-15), and has also committed to consult with tribal, federal, state, and local governments to develop a spill prevention, control, and countermeasures plan prior to construction (VM-7). If the Coalition's voluntary mitigation measures are implemented, OEA concludes that rail operations safety impacts would not be high and adverse.

OEA estimated the risk of rail-related accidents and the likelihood of crude oil spills based on a number of variables that are constant across the length of the rail line, such as accident rate by track type or track class, the number of trains that would move on the rail line, the types of rail cars, and number of rail cars per train. The risk of rail accidents would be distributed across the entire length of the proposed rail line and would not be higher in areas with minority populations, low-income populations, and American Indian tribes. Because the risk of rail-related accidents is not high and adverse and would not be disproportionately borne by minority or low-income populations or American Indian tribes, OEA concludes that impacts related to rail operations safety would not result in disproportionately high and adverse effects on minority and low-income populations or American Indian tribes.

Noise

During rail operations, wayside noise under the high traffic scenario could cause noise levels to exceed OEA's thresholds of an increase of 3 A-weighted decibels and a 65 day-night average noise level at up to six residences under the Indian Canyon Alternative, up to two residences under the Whitmore Park Alternative, and up to one residence under the Wells Draw Alternative. Because noise levels would exceed OEA's noise thresholds, this effect would be high and adverse. None of the affected residences are located in areas with minority populations, low-income populations, or American Indian tribes (Figure 3.14-7). Therefore, OEA has determined that wayside noise during operations would not result in disproportionately high and adverse effects on minority populations, low-income populations, or American Indian tribes. The Coalition has proposed voluntary mitigation for noise impacts, including a commitment to comply with Federal Railroad Administration regulations establishing decibel limits for train operations, in consultation with the Ute Indian Tribe (VM-53). As discussed in Section 3.6, *Noise and Vibration*, OEA is recommending additional mitigation (NV-MM-3) to address noise and vibration impacts, including requirements for the Coalition to employ reasonable and feasible noise mitigation at residences that would experience adverse noise impacts.

Air Quality

During rail operations, the primary source of air emissions would be locomotives operating on the proposed rail line. OEA's analysis of air emissions from rail operations concluded that rail operations would not result in significant air quality impacts. As discussed in Section 3.7, *Air Quality and Greenhouse Gases*, OEA conducted air quality modelling for particulate matter and NO₂ at three locations along the Action Alternatives, including at a location south of Myton, which is an area that OEA identified as having minority populations, low-income populations, and American Indian tribal members. OEA's analysis found that the maximum 1-hour NO₂ concentration could exceed the NAAQS at the location south of Myton under the high rail traffic scenario³ for the Indian Canyon Alternative and the Whitmore Park Alternative. However, OEA concluded that an exceedance of the NAAQS at this location would be unlikely because it would only occur under unusual operational and meteorological conditions and only if rail traffic on the proposed rail line were at or near the maximum projected level. If it occurred, the exceedance would be located within or adjacent to the rail right-of-way and would not affect any residences, other sensitive receptors, or areas where

³ The Coalition estimates that rail traffic on the proposed rail line could range from as few as 3.68 trains per day, on average (the low rail traffic scenario), to as many as 10.52 trains per day, on average (the high rail traffic scenario), depending on future market conditions, including future demand for crude oil produced in the Basin.

members of the public are likely to be present. OEA did not identify any other locations along the Action Alternatives where emissions from rail operations could potentially cause the NAAQS for NO₂ or other criteria pollutants to be exceeded. Therefore, OEA has determined that air quality impacts from rail operations would not be high and adverse impacts that could disproportionately affect minority populations, low-income populations, or American Indian tribal members.

Socioeconomics

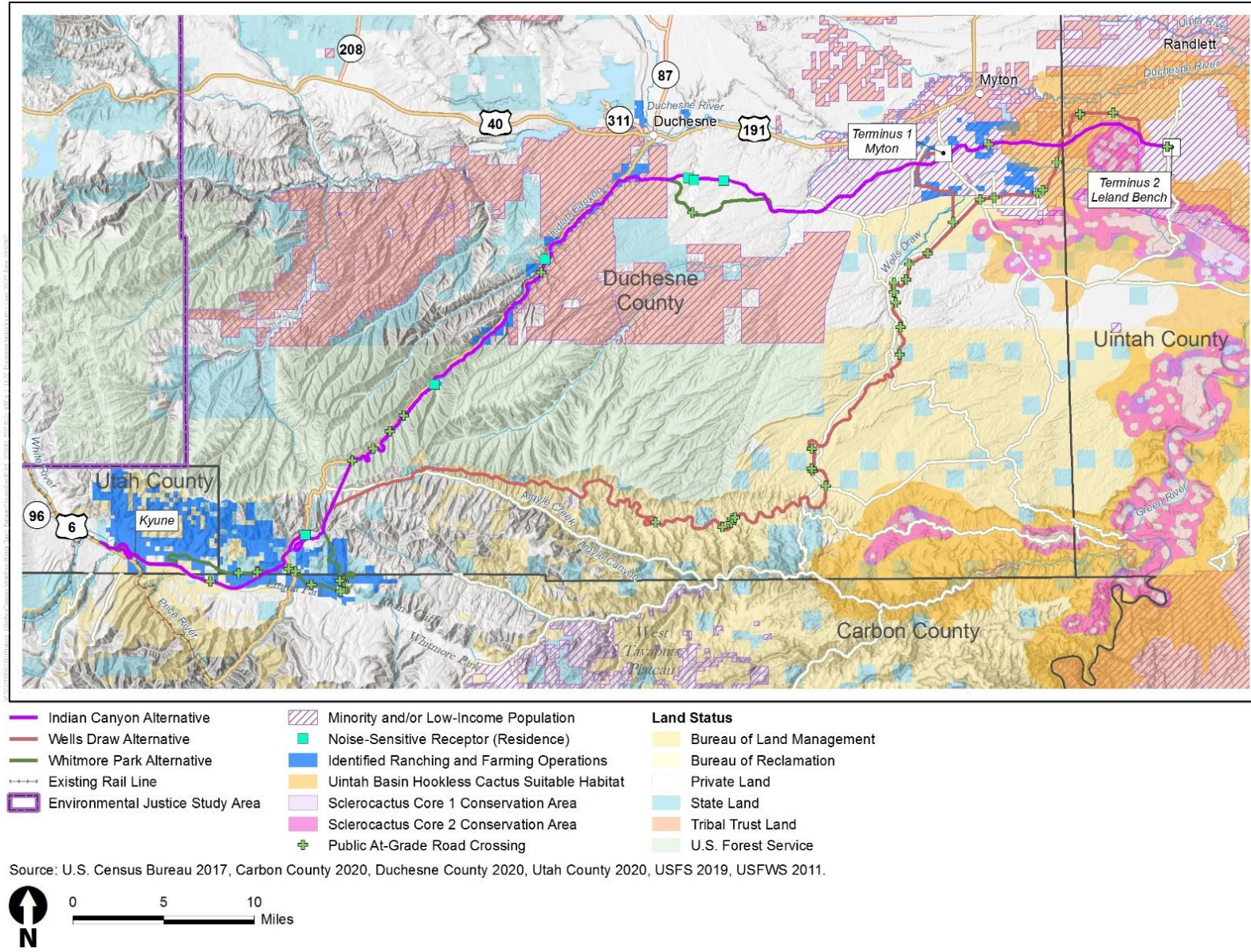
Operation of the proposed rail line would support regional employment, generate labor income, and contribute to the regional economy. The contribution of rail operations to the regional economy would be much less than the contribution from construction, but these impacts would be permanent rather than temporary. Similarly, impacts related to increased workforce demand for housing and public services during operations would be less than during construction and would not be high and adverse. Operations-related quality-of-life impacts would also be generally reduced compared to construction-related impacts. The Coalition has proposed voluntary mitigation to address quality-of-life impacts, including commitments to appoint liaisons to consult with the Ute Indian Tribe and other affected communities to develop cooperative solutions to concerns regarding construction activities and rail operations (VM-49, VM-50).

As a producer of crude oil in the Basin, the Ute Indian Tribe would benefit economically from access to a new mode of transportation for crude oil that would offer cheaper rates than trucking and potentially greater access to markets for crude oil across the United States. The Coalition has indicated that the Ute Indian Tribe may become an equity partner in the proposed rail line. If this were to occur, the tribe would also receive income generated by the operation of the rail line.

Based on the potential adverse socioeconomic impacts and offsetting socioeconomic benefits, OEA has concluded that socioeconomic impacts on minority and low-income populations and American Indian tribes during operations would not be disproportionately high and adverse. Section 3.15, *Cumulative Impacts* discusses potential cumulative socioeconomic effects on minority and low-income populations and American Indian tribes related to potential future oil and gas development and the operation of new rail terminals near Myton and Leland Bench.

3.14.3.3 No-Action Alternative

Under the No-Action Alternative, the Coalition would not construct and operate the proposed rail line and there would be environmental justice impacts.

Figure 3.14-7. Environmental Justice Impacts

3.14.4 Mitigation and Unavoidable Environmental Effects

Any of the Action Alternatives could result in environmental justice impacts. Based on consultation with the Ute Indian Tribe, OEA considered impacts related to noise, air quality, water resources, cultural resources, land use, vehicle safety and delay, rail operations safety, socioeconomics, and big game and concluded that those impacts would not result in disproportionately high and adverse impacts on minority populations, low-income populations, or American Indian tribal members. OEA concluded that construction impacts on the Pariette cactus and Uinta Basin hookless cactus would result in disproportionately high and adverse impacts for the Ute Indian Tribe because those plant species are culturally important to the tribe. In addition to the mitigation measures discussed in the preceding sections of this chapter and the voluntary mitigation measures that the Coalition has proposed, OEA is recommending an additional mitigation measure requiring the Coalition consult with the Ute Indian Tribe regarding impacts on the Pariette cactus and Uinta Basin hookless cactus and to abide by the tribe's requirements for the management of those species.