

3.13 Socioeconomics

This section describes the socioeconomic impacts that could result from construction and operation of the proposed rail line. The subsections that follow describe the study area, data sources and methods OEA used to analyze the impacts, the affected environment, and the socioeconomic impacts of the Action Alternatives. Appendix Q, *IMPLAN Analysis Methods and Results*, provides additional information on Impact Analysis for Planning (IMPLAN) modeling assumptions and outputs.

3.13.1 Analysis Methods

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

3.13.1.1 Study Area

OEA defined the study area for socioeconomics as the four-county area that includes Carbon, Duchesne, Uintah, and Utah Counties. These four counties are expected to receive economic benefits resulting from construction and operations expenditures, provide a source of local labor, and provide housing and public services for the construction and operations workforce. Adverse effects related to land acquisition, displacement, nonmarket values, and quality of life are more localized, with effects realized in closer proximity to the Action Alternatives and nearby communities.

3.13.1.2 Data Sources

OEA relied on the following data sources to determine the potential impacts on socioeconomics that could result from construction and operation of the Action Alternatives and the No-Action Alternative.

- U.S. Census Bureau.
- U.S. Department of Agriculture, National Agricultural Statistics Service.
- Utah State Tax Commission.
- County School Districts, Fire Districts, and Sherriff's Offices.
- Government-to-government consultation with the Ute Indian Tribe of the Uintah and Ouray Reservation.
- Consultation with federal, state, and local agencies.

3.13.1.3 Analysis Methods

OEA used the following methods to analyze impacts on socioeconomics in the study area.

- **OEA characterized acquisition and displacement of existing land uses.** OEA used GIS methods to estimate the area of land that would be acquired for the project footprint.¹ OEA characterized land use within the acreage likely to be acquired if rail line construction is authorized (e.g., residential, agricultural, ranching). OEA also estimated the number of residences and other structures that are located within the project footprint and estimated the number that could be displaced.
- **OEA modeled the potential local economic effects of the proposed rail line.** OEA estimated direct employment and expenditures during construction and operation of the proposed rail line based on information provided by the Coalition, as well as indirect, induced, and total employment during construction and operation.² OEA used the IMPLAN regional impact model to obtain employment estimates. IMPLAN captures commodity flows among industrial sectors and by county, and allows the estimation of indirect and induced effects of increases in demand on employment, earnings, and output. Appendix Q, *IMPLAN Analysis Methods and Results*, provides additional details on the IMPLAN model inputs and results.
- **OEA estimated potential changes in local population.** OEA estimated population increase in the study area based on the Coalition's estimate of peak employment, the percentage of the labor force that would be locally sourced, and the number of construction workers that would be housed in dedicated construction camps.
- **OEA characterized potential demand for housing and public services.** OEA estimated demand for housing and public services by comparing population increase estimates to available housing and public services in towns located near the Action Alternatives. OEA obtained estimates of vacant housing units and vacant housing units available for rent from the U.S. Census Bureau *American Community Survey 5-Year Estimates* (U.S. Census Bureau 2017a). OEA compiled estimates of available temporary accommodations such as hotels, motels, and recreational vehicle (RV) parks through a review of Google Earth, Google Maps, and other readily available online sources such as hotel, motel, and RV park websites (ICF 2020).

3.13.2 Affected Environment

This subsection identifies the existing environmental conditions related to socioeconomics in the study area. The source of demographic data for this section is ACS 5-year estimates (2013–2017), and may not reflect recent changes in conditions caused by the COVID-19 pandemic.

¹ 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.

² Direct employment refers to jobs created by the hiring of construction workers and rail line employees. Indirect employment refers to jobs created through increased demand for construction materials and services. Induced employment refers to jobs created at businesses where construction workers and rail line employees would spend their incomes.

3.13.2.1 Population

Utah County is the most populous county in the study area with over 576,000 residents in 2017. The populations of other counties in the study area are substantially smaller, ranging from approximately 20,000 residents in Carbon County and Duchesne County to over 36,000 residents in Uintah County (U.S. Census Bureau 2017b).

Population in the study area increased at an annual growth rate of 3.7 percent between 2000 and 2010, but slowed to an annual growth rate of 1.6 percent between 2010 and 2017. Utah County had the highest rate of annual growth in population between 2010 and 2017 at 1.7 percent, while the population of Carbon County declined by 0.6 percent over the same period. Table 3.13-1 shows population and population trends for the study area.

Table 3.13-1. Population in the Study Area

Location	2000	2010	2017	Annual Growth Rate 2000–2010 (%)	Annual Growth Rate 2010–2017 (%)
Carbon County	20,422	21,403	20,512	0.5	-0.6
Helper	2,025	2,201	2,031	0.9	-1.1
Price	8,402	8,715	8,337	0.4	-0.6
Wellington	1,666	1,676	1,520	0.1	-1.3
Duchesne County	14,371	18,607	20,259	2.9	1.3
Duchesne	1,408	1,690	1,826	2.0	1.1
Myton	539	569	566	0.6	-0.1
Roosevelt	4,299	6,046	6,771	4.1	1.7
Uintah County	25,224	32,588	36,343	2.9	1.6
Ballard	566	801	915	4.2	2.0
Vernal	7,714	9,089	10,650	1.8	2.5
Naples	1,300	1,755	2,387	3.5	5.1
Utah County	368,540	516,564	576,496	4.0	1.7
Provo	105,439	112,488	117,331	0.7	0.6
Four-County Area	428,557	589,162	653,610	3.7	1.6
Uintah and Ouray^a	19,182	21,871	26,063	1.4	2.7

Notes:

^a Data reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and Off-Reservation Trust Lands.

Sources: U.S. Census Bureau 2012, 2017b

3.13.2.2 Housing and Public Services

This subsection describes the availability of housing and public services in the counties and cities located near the Action Alternatives that could supply temporary accommodations for the construction workforce. Table 3.13-2 shows total housing stock, vacancy status, and temporary accommodations such as hotels, motels, and RV parks that are available to rent in towns near the Action Alternatives. On the western end of the three Action Alternatives, the supply of hotel and motel rooms is greatest in the city of Price, while the city of Helper has the largest supply of RV parking spaces. Near the central and eastern portions of the Action Alternatives, the cities of

Duchesne and Ballard have the greatest number of hotel and motel rooms, while the cities of Myton and Ballard have the greatest supply of RV parking spaces. Vacant housing units in the study area could also provide short-term or longer-term housing for construction workers. In Uintah County, Vernal has an abundance of temporary accommodations, including hotels, motels, and RV parking spaces but is more distant from the Action Alternatives and would be a longer commute for the construction workforce. The community of Randlett, which is located approximately 6 miles northeast of the proposed rail line terminus near Leland Bench, has a population of 144 and only five vacant housing units for rent (U.S. Census Bureau 2017a). For this reason, OEA considered Randlett unlikely to provide accommodations and other services for the construction workforce. Cities in Utah County, such as Provo, are over 100 miles from the western end of the Action Alternatives, making them outside the commuting distance for nonlocal construction workers. For this reason, Table 3.13-2 does not include an assessment of vacant housing and temporary accommodations in Utah County.

Table 3.13-2. Housing Stock and Vacancy Status

Location	Total Housing Units	Vacant Housing Units			Temporary Accommodations			Total Available Housing Units ^a	Distance to Action Alternatives (miles) ^b
		Total Vacant Units	Vacant Units for Rent	Vacant Units for Sale	Hotel and Motel Rooms	RV Park Spaces	Total Temporary Accommodations		
Carbon County									
Helper	1,181	302	144	51	10	100	110	254	12.3
Price	3,419	481	141	26	587	--	584	728	20.5
Wellington	735	116	37	26	70	24	94	131	26.5
Duchesne County									
Myton	258	52	8	3	10	51	61	69	5.0
Roosevelt	2,455	284	153	33	20	--	20	173	14.2
Duchesne	730	86	17	8	72	94	166	183	20.2
Uintah County									
Ballard	303	28	2	4	182	54	236	238	16.0
Vernal	4,439	1,131	548	252	551	163	714	1,262	44.0
Naples	765	108	26	0	154	-	154	180	46.6
Total	14,285	2,588	1,076	403	1,656	486	2,142	3,218	--
Uintah and Ouray ^c	12,212	4,064	262	170	284	199	483	745	Varies

Notes:

^a Total available housing units include housing units that are vacant for rent and temporary accommodations.

^b Distance represents the distance between Carbon County communities and the connection to Union Pacific on the western end of the Action Alternatives and between Duchesne County and Uintah County communities and the Myton terminal on the eastern end of the Action Alternatives.

^c Data on total housing units, vacant units, and vacant units for rent are reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and Off-Reservation Trust Lands. The number of available temporary accommodations is the sum of temporary accommodations that are available in Myton, Roosevelt, Duchesne, and Ballard, and does not reflect temporary accommodations that may be available within the Uintah and Ouray Reservation and Off-Reservation Trust Lands boundary that are more distant from the Action Alternatives.

Sources: U.S. Census Bureau 2017a; ICF 2020

Law Enforcement

Carbon, Duchesne, Uintah, and Utah Counties all have county sheriff's offices. The cities of Helper, Price, and Wellington in Carbon County, and Myton and Roosevelt in Duchesne County, all have municipal police departments that provide law enforcement. The city of Duchesne contracts with the Duchesne County Sheriff's Office for law enforcement services (Duchesne County 2019). The cities of Vernal and Naples in Uintah County have their own police departments. The city of Ballard in Uintah County does not have its own police department, and law enforcement is under the jurisdiction of the Uintah County Sheriff's Office. BIA also has a police department in Fort Duchesne that assists with law enforcement (Ute Indian Tribe 2020).

Fire Protection and Emergency Services

Fire protection and emergency services are provided by cities and counties in the study area. Duchesne County has seven volunteer fire departments within its jurisdiction, consisting of four municipal and three rural fire stations. Fire stations are located in the cities of Duchesne, Myton, and Roosevelt (Duchesne County 2020a). The Roosevelt Fire Department provides emergency response for structural fires on Tribal trust lands (Ute Indian Tribe 2020), while BIA and local volunteer fire departments respond to wildland fires. Uintah County has five volunteer fire departments within the Uintah Fire District, including two fire stations located in the city of Vernal and one fire station located in Naples (Uintah County Fire District 2020). In Carbon County, fire stations are located in the cities of Price and Helper (FireDepartment.net 2020).

Public Schools

County school districts administer public schools in the study area. Carbon County School District operates 10 schools within the county boundaries, including two elementary schools, one middle school, and one high school that is located in Price. One elementary and one middle school serve the city of Helper (Carbon County School District 2020). Carbon County School District operates one elementary school in the city of Wellington. The Duchesne County School District operates 12 schools that serve students within the county boundaries. The city of Myton has one elementary school that accommodates grades K-5. Duchesne County School District operates two elementary schools, one middle school, and one high school in the city of Roosevelt. The city of Duchesne has one elementary school and one middle through high school that serves students within the city boundaries (Duchesne County School District 2020). The Uintah County School District operates 10 schools within the county boundaries. Six elementary schools, two middle schools, and one high school operated by Uintah County School District are in Vernal. One elementary school in Roosevelt is operated by Uintah County School District (Uintah County School District 2020). Tribal members typically attend public schools within the Uintah County School District or Duchesne County School District, with the exception that the tribe operates a charter high school, the Uintah River High School, that some older students attend.

3.13.2.3 Employment and Income

The labor force in the study area is shown in Table 3.13-3. Utah County has the largest labor force, followed by Uintah, Carbon, and Duchesne Counties. Based on U.S. Census data, unemployment rates across the study area range from 4.3 percent in Utah County to 6.7 percent in Uintah County. Unemployment rates are somewhat higher within Uintah and Ouray Reservation and Off-Reservation Trust Lands, at 7.1 percent.

Table 3.13-3. Labor Force and Employment in the Study Area

County	Labor Force	Employed	Unemployed	Unemployment Rate (%)
Carbon	9,412	8,906	506	5.4
Duchesne	8,561	8,026	535	6.2
Uintah	16,163	15,087	1,076	6.7
Utah	269,235	257,679	11,556	4.3
Total	303,371	289,698	13,673	4.5
Uintah and Ouray^a	10,650	9,893	757	7.1

Notes:

^a Data reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and Off-Reservation Trust Lands.

Source: U.S. Census Bureau 2017c

Table 3.13-4 shows employment and median income by industry across the study area. Education, health care, and social assistance and retail trade are important employment sectors across the study area. In addition, mining, quarrying, and the oil and gas industry are locally important to Duchesne and Uintah Counties, while construction is an important source of employment in Carbon and Duchesne Counties, and manufacturing is an important source of employment for Utah County. Utilities, mining, quarrying, oil and gas, and wholesale trade generally provide higher median incomes to their workers.

Table 3.13-4. Employment and Median Income by Industry

Sector	Carbon County		Duchesne County		Uintah County		Utah County		Uintah and Ouray^a	
	Labor Force	Median Income	Labor Force	Median Income	Labor Force	Median Income	Labor Force	Median Income	Labor Force	Median Income
All sectors	8,906	\$29,190	8,026	\$38,606	15,087	\$35,741	257,679	\$27,920	9,893	\$37,208
Agriculture, Forestry, Fishing, Hunting	1.2%	\$22,188	4.6%	\$30,729	1.7%	\$52,250	0.6%	\$23,684	4.6%	\$31,034
Mining, Quarrying, Oil/Gas	6.7%	\$68,643	19.9%	\$64,263	18.9%	\$73,186	0.3%	\$63,250	19.8%	\$63,495
Construction	8.0%	\$30,100	8.5%	\$42,246	5.8%	\$37,094	6.7%	\$38,205	7.6%	\$41,912
Manufacturing	5.6%	\$37,000	2.8%	\$43,750	2.2%	\$21,827	9.3%	\$39,124	2.9%	\$38,173
Wholesale Trade	3.0%	\$56,452	2.0%	\$56,786	2.7%	\$49,583	2.7%	\$39,429	1.7%	\$60,625
Retail Trade	10.5%	\$17,262	8.2%	\$23,899	13.2%	\$19,158	12.5%	\$19,858	8.8%	\$23,138
Transportation and Warehouse	6.0%	\$44,583	6.5%	\$44,018	6.4%	\$44,688	2.3%	\$41,360	6.3%	\$46,012
Utilities	3.4%	\$91,023	1.7%	\$63,333	2.2%	\$78,750	0.6%	\$60,909	1.5%	\$63,194
Information	2.0%	\$17,100	1.8%	\$26,250	1.5%	\$45,156	3.2%	\$43,162	2.0%	\$36,771
Finance, Insurance, Real Estate	2.8%	\$23,220	3.4%	\$35,833	2.6%	\$27,432	5.6%	\$42,002	3.0%	\$34,500
Professional, Scientific, Technical	2.6%	\$35,568	2.4%	\$51,397	3.7%	\$31,587	8.9%	\$51,368	2.4%	\$51,029
Management of Companies and Enterprises	0.0%	--	0.0%	--	0.0%	--	0.1%	\$41,346	0.0%	--
Admin, Support, Waste Management	4.4%	\$22,500	1.8%	\$27,500	1.9%	\$28,625	5.7%	\$20,850	1.6%	\$24,306
Education, Health Care, Social Assistance	22.8%	\$25,733	22.2%	\$29,549	16.2%	\$25,804	26.0%	\$21,986	20.8%	\$29,118
Arts, Entertainment, Recreation	1.7%	\$4,494	0.8%	\$15,000	2.7%	\$11,607	2.0%	\$6,998	1.0%	\$6,912
Accommodations and Food	6.8%	\$11,325	4.6%	\$9,914	7.4%	\$12,383	6.0%	\$9,838	4.9%	\$10,496
Other Services	6.7%	\$20,710	3.5%	\$16,528	4.6%	\$24,152	4.5%	\$17,367	3.6%	\$23,333
Public Administration	5.8%	\$45,821	5.4%	\$43,393	6.3%	\$43,702	3.0%	\$49,029	7.6%	\$39,504

Notes:

^a Data reported for the tribal census block groups that comprise the Uintah and Ouray Reservation and Off-Reservation Trust Lands.

Sources: U.S. Census Bureau 2017d, 2017e

Ranching and farm income are important contributors to the local economy of the study area. Table 3.13-5 reports the value of cattle and calves and the highest value farm products in each county. Corn, wheat, and hay are the most important farm products in the study area based on the annual output. Other important farm products in the study area include oats and barley. Production of cattle and calves is valued at over \$100 million in Uintah County and over \$150 million in Duchesne and Utah Counties.

Table 3.13-5. Estimated Value of Selected Farm Production in the Study Area, 2017

County	Product	Inventory (heads)	Value ^a (\$ million)	Production ^b	Unit	\$/Unit	Annual Output (\$ million)
Carbon ^c	Cattle	6,378	\$18.2	2,614,980	Pounds	--	--
	Hay	--	--	26,676	Tons	\$127	\$3.4
Duchesne	Cattle	54,683	\$156.3	22,420,030	Pounds	--	--
	Corn	--	--	352,367	Bushels	\$3.80	\$1.3
	Hay	--	--	177,361	Tons	\$127	\$22.5
Uintah	Cattle	35,632	\$101.9	14,609,120	Pounds	-	-
	Corn	--	--	428,620	Bushels	\$3.80	\$1.6
	Hay	--	--	148,415	Tons	\$127	\$18.9
Utah	Cattle	54,299	\$155.2	22,262,590	Pounds	--	--
	Corn	--	--	492,105	Bushels	\$3.80	\$1.9
	Wheat	--	--	18,389,524	Bushels	\$4.30	\$79.1

Notes:

^a Based on value per head of \$2,859, average of cows, heifer calves, and steer calves values on January 1, 2016, and January 1, 2017, for the state of Utah.

^b For cattle, based on annual production of 410 pounds of meat per head of cattle inventory in Utah in 2012.

^c Carbon County crop data for crops other than hay were withheld to avoid disclosing data for individual operations.

Sources: USDA 2017a, 2017b

3.13.2.4 Fiscal Revenues

The state of Utah has 3.4 million acres of designated trust land, which are held in a trust for its beneficiaries. SITLA generates revenue from mineral and energy royalties; real estate development and sales; and surface estate sales, leases, and easements whose proceeds are deposited into institutional endowments for higher education, special education, and public institutions.

Since 1994, SITLA has generated \$1.96 billion in revenue (SITLA 2020). The full list of beneficiaries includes the following.

- Public Buildings
- Utah Schools for the Deaf and Blind
- Utah Public Schools
- Utah State Hospital
- Utah Department of Human Services Juvenile Justice Services; Miners Hospital and University of Utah

- Colleges of Education at University of Utah, Dixie State, Southern Utah University, Utah State University, Utah Valley University, and Weber State
- Utah Division of Water Resources
- College of Mines and Earth Sciences at the University of Utah; the University of Utah
- Utah State University

Other sources of state revenue include income tax (assessed at a flat rate of 4.95 percent) and the state sales and use tax (assessed at a rate of 4.85 percent). Local jurisdictions may also levy taxes including local sales and use taxes, county option sales taxes, city or town option taxes, and taxes levied specifically to support transit and highways, or public facilities. The combined sales and use tax rate effective April 1, 2020 is 6.35 percent for Carbon and Duchesne Counties, 6.45 percent for Uintah County, and 7.15 percent for Utah County, while sales and use tax rates in some cities in the study area may be slightly higher (Utah State Tax Commission 2020). Additional transient room taxes are a combination of the 0.32 percent statewide tax on temporary lodging; a county tax rate of up to 4.25 percent; and additional city or town-imposed taxes of up to 1 percent. Counties also collect property taxes, which are distributed to various taxing entities in accordance with the tax rates levied and approved for the tax year.

3.13.2.5 Nonmarket Values and Quality of Life

Many resources associated with public lands, private lands, and Tribal trust lands provide quality of life and social value that may not be reflected in market prices (i.e., have nonmarket value). Nonmarket social values include appreciation for areas that are ecologically or culturally unique or sensitive, scenic, undisturbed, and free of pollution and areas that provide opportunities for quiet recreation, or that convey a “sense of place.” A review of scoping comments submitted by agencies, organizations, and members of the general public indicated that the scenic, recreational, and wilderness characteristics of land in the study area are important to local residents and other stakeholders. Many comments received during the public scoping period expressed an appreciation for these nonmarket values either generally or in reference to specific locations such as Argyle Canyon and Indian Canyon.

3.13.3 Environmental Consequences

Construction and operation of the proposed rail line could result in socioeconomic 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 for each Action Alternative. For comparison purposes, this subsection also describes socioeconomics under the No-Action Alternative.

3.13.3.1 Impacts Common to All Action Alternatives

This subsection describes the potential socioeconomic impacts that would be the same across the three Action Alternatives.

Construction

Land Acquisition and Displacement

Under all of the Action Alternatives, the Coalition would acquire land and temporary construction easements from federal, state, tribal, and private landowners for construction of the proposed rail line. On federal land, the Coalition would seek a right-of-way grant from BLM and/or a Forest Service special use authorization, depending on the Action Alternative. The Coalition would also obtain easements from SITLA and UDOT for use of state land. On Tribal trust lands, the Coalition would seek a consent resolution for rail line construction from the Ute Indian Tribe and a grant of easement for rights-of-way or leases (if necessary) from BIA. Section 3.11, *Land Use and Recreation*, discusses impacts of the proposed rail line on public lands.

To construct any of the Action Alternatives, the Coalition would also acquire land from private landowners. The Coalition does not yet know the exact width of the rail right-of-way in all locations because defining the right-of-way would involve negotiations with private landowners and consultation with public agencies following the end of the Board's environmental review process. At a minimum, the Coalition would acquire the full extent of the rail line footprint. OEA expects that in most cases, the Coalition would negotiate a lease of a temporary construction easement for use of land outside of the rail line footprint but within the temporary footprint. The Coalition would return this leased land to landowners at the end of the construction period. However, where the size of the project footprint is large relative to the size of a parcel of private property that it would cross, the Coalition and landowner could negotiate a full acquisition of the parcel rather than a partial acquisition or temporary construction easement. These decisions would be made on a case-by-case basis, subject to negotiations between the Coalition and the private landowners. The Board would not be involved in the land acquisition process, which would take place after the Board has issued a decision authorizing or denying the Coalition's proposal.

Existing residences and other structures located within the rail line footprint would be displaced for construction of the proposed rail line; existing residences and other structures located within the temporary footprint could be displaced, pending negotiations between the Coalition and the private landowner. For portions of the Action Alternatives that would be tunneled, the Coalition would obtain easements for constructing tunnels. OEA does not expect that subsurface tunneling would displace surface uses.

Displaced Economic Activity

Land and temporary construction easements acquired for construction of the proposed rail line would no longer be available for ranching, farming, or other economic activities. Economic activity within temporary construction easements would be displaced during construction only, while economic activity within acquired land would be permanently displaced. The Action Alternatives could also disrupt economic activity outside of areas directly affected by the project footprint where construction and operation of the proposed rail line would sever parcels, limit access to irrigation systems, or restrict the movements of animals and equipment between different operating areas of a ranch or farm.

Construction Employment, Labor Income, and Value Added

Construction of the proposed rail line would create new employment opportunities and contribute to the regional economy. Construction of any of the Action Alternatives would involve directly

employing construction labor during the construction period and local spending on materials and services. In addition, construction workers would spend a portion of their income locally. OEA estimated the direct and total employment, labor income, and total market value of all goods and services generated during the construction period under each of the Action Alternatives, as explained in detail in Appendix Q, *IMPLAN Analysis Methods and Results*. Direct and total employment, labor income, and total estimated economic output (or value added) generated by rail line construction would be specific to each Action Alternative, as discussed in Subsection 3.13.3.2, *Impact Comparison by Action Alternative*.

Workforce Demand for Housing and Public Services

Employment generated by construction would bring nonlocal construction workers to communities located within a commuting distance of construction sites. OEA assumed that temporary nonlocal construction workers would reside as close to the construction site as feasible with a shorter commuting distance. Based on commuting distance and availability of temporary accommodations such as hotels, motels, and RV spaces (Table 3.13-2), OEA expects that Helper, Price, Duchesne, Myton, and Ballard would see the greatest influx of temporary construction workers from outside of the four-county study area. These same communities would also see the greatest demand for housing and public services.

State and Local Revenue

For any of the Action Alternatives, the Coalition would acquire easements for the proposed rail line on lands administered by SITLA. These easements would generate revenue for SITLA trust beneficiaries that would be distributed to institutional endowments for higher education, special education, and public institutions in the state of Utah (SITLA 2020). Construction of the proposed rail line would generate revenue for the state through state income tax on the direct, indirect, and induced labor income of Utah state residents. Construction would also generate state and local sales and use taxes on direct construction expenditures, as well as sales and use taxes on indirect and induced spending. Nonlocal construction workers who reside in temporary accommodations such as hotels and motels during the construction period would generate additional transient room tax revenue.

Socioeconomic Benefits for the Ute Indian Tribe

If constructed, the proposed rail line would provide a new transportation option for shippers in the Basin, including producers of crude oil, which could result in lower transportation costs and access to new markets. The Ute Indian Tribe is a major producer of crude oil in the Basin and could, like other producers, benefit from potential lower transportation costs and access to new markets if the proposed rail line were available as an alternative transportation option. The Coalition has also indicated that the Ute Indian Tribe may become an equity partner in the proposed rail line. If this were to occur, then the tribe would receive additional revenue generated by the operation of the proposed rail line. These economic benefits for the Ute Indian Tribe would be the same for any of the Action Alternatives. As discussed in Subsection 3.13.3.2, *Impact Comparison between Action Alternatives*, the Ute Indian Tribe would also receive payments associated with the granting of a right-of-way across Tribal trust land if the Board were to authorize construction and operation of the Indian Canyon Alternative or the Whitmore Park Alternative.

Nonmarket Values and Quality of Life

Comments received during scoping identified the importance of scenic, recreational, environmental, and wilderness aspects of lands in the study area. Construction of the proposed rail line would change land use within the rail line footprint, which could affect these values. On private and public lands currently used for grazing, agriculture, and recreation, these uses would be displaced during construction within the temporary footprint. Within the rail line footprint, these uses would be permanently displaced. Proposed rail line construction activities would create visual distractions and generate noise that would be more noticeable in undeveloped areas. Noise and visual distractions could diminish the value of areas near construction sites for recreation, hunting, and wildlife viewing, and disrupt residents in rural settings that generally have lower levels of background noise, and a more natural landscape. Construction activities adjacent to scenic byways and backways would result in the introduction of construction equipment, fugitive dust, vegetation removal, large areas of cut and fill, and potentially new bridges and drainage culverts during the construction period. For more information on construction-related quality of life impacts, see Section 3.6, *Noise and Vibration*, Section 3.11, *Land Use and Recreation*, and Section 3.12, *Visual Resources*.

Operations

Employment, Labor Income, and Value Added

Operation of the proposed rail line would support regional employment, generate labor income, and contribute to the regional economy. The Coalition provided annual operations and maintenance (O&M) cost estimates for both a low and high rail traffic scenario. Under the low rail traffic scenario, approximately 3.68 trains would move on the proposed rail line per day, on average. Under the high rail traffic scenario, approximately 10.52 trains would move on the proposed rail line per day, on average. Direct and total employment and total estimated economic output during operations would be specific to each Action Alternative and each scenario, as discussed in Subsection 3.13.3.2, *Impact Comparison by Action Alternative*.

As discussed in Section 3.1, *Vehicle Safety and Delay*, OEA expects that the proposed rail line would displace truck traffic that transports crude oil to the Price River Terminal facility in Wellington, Utah. If the proposed rail line were constructed, the tanker trucks that currently transport crude oil to the Price River Terminal would likely go to the new rail line terminals in the Basin instead, because the new rail line terminals would be significantly closer to oil production areas in the Basin than the Price River Terminal. OEA expects that commercial drivers who are employed in short-haul trucking between production areas in the Basin and Price River Terminal would work instead in short-haul trucking between production areas in the Basin and the new rail terminals in the Basin (Section 3.15, *Cumulative Impacts*). OEA expects that trucks would continue to transport crude oil to refineries in Salt Lake City, so jobs associated with long-haul trucking of crude oil from the Basin to refineries in Salt Lake City would not be affected. In addition, because overall truck traffic would not be reduced—it is forecast to increase under the cumulative traffic scenario (Section 3.15, *Cumulative Impacts*)—OEA expects that operation of the proposed rail line would not lead to a reduction in jobs associated with maintenance of state and local roads.

Workforce Demand for Housing and Public Services

Operation of the proposed rail line would create long-term O&M jobs. To the extent that O&M jobs could be filled by nonlocal workers, the influx of nonlocal O&M workers to the study area would

increase demand for local housing and public services. Employment for O&M would be substantially lower than for construction and OEA expects that the impact on housing and public services would not be significant under any of the Action Alternatives. Depending on the Action Alternative, the proposed rail line would support between 170 and 220 jobs under the low rail traffic scenario or between 370 and 530 jobs under the high rail traffic scenario. OEA expects that many of the O&M jobs would be filled by local workers and that the influx of nonlocal workers and their families would represent an increase of less than one percent of the combined populations of Carbon County, Duchesne County, and Uintah County, which was 77,000 in 2017. As shown in Table 3.13-2, communities located within commuting distance of the Action Alternatives had over 1,000 vacant housing units available for rent and over 400 vacant housing units for sale in 2017, which is significantly higher than the number of units that would be needed to house new O&M workers moving into the area. Student-teacher ratios in the Carbon County School District (19:1), Duchesne County School District (20:1), and Uintah County School District (23:1) are comparable to the state-wide average (22:1) (Utah Department of Education 2020). OEA does not expect that in-migration of nonlocal workers to fill a portion of the operations jobs generated by the proposed rail line would significantly affect public schools in the study area. Therefore, OEA concludes that the creation of new O&M jobs would not significantly affect long-term population trends in the study area, the availability of housing, housing prices, or the capacity of public services.

State and Local Revenue

Under any of the Action Alternatives, easements on lands administered by SITLA would generate revenue for trust beneficiaries. All of the Action Alternatives would generate state income tax on direct, indirect, and induced annual labor income for each year that the rail line is in operation. Revenue from state and local sales and use taxes on annual O&M expenditures, and indirect and induced spending generated by operation of the proposed rail line would also be generated on an annual basis.

Nonmarket Values and Quality of Life

Operation of the proposed rail line would displace land use within the rail line footprint permanently and would introduce industrial elements to a primarily rural and/or scenic landscape. On private and public lands currently used for grazing, agriculture, and recreation, operations would fully or partially displace these uses within the rail line footprint. Operation of the proposed rail line would also introduce wayside and train horn noise that would be more noticeable in undeveloped areas. Noise and visual distractions could diminish the value of areas near the Action Alternatives for recreation, hunting, and wildlife viewing, and disrupt residents in rural settings that generally have lower levels of background noise, and a more natural landscape. Operations would introduce a freight rail line to corridors that contain scenic byways and backways potentially diminishing their scenic quality. For more information on operations-related quality of life impacts, see Section 3.6, *Noise and Vibration*, Section 3.11, *Land Use and Recreation*, and Section 3.12, *Visual Resources*.

3.13.3.2 Impact Comparison between Action Alternatives

This subsection describes the potential impacts on socioeconomics that would be different between the three Action Alternatives.

Construction

Acquisitions and Displacements

Table 3.13-6 shows the estimated acreage of federal, state, tribal, and private land that the Coalition would acquire to construct each Action Alternative. In addition to surface land, each Action Alternative would require subsurface easements for construction of between 4.3 and 5.7 miles of tunnel. Key differences between the Action Alternatives include the following.

- The Indian Canyon Alternative would cross all land jurisdictions (BLM, Forest Service, SITLA, UDOT, tribal, and private).
- The Indian Canyon Alternative and Whitmore Park Alternative both cross Tribal trust lands. Tribal trust lands that would be crossed by these alternatives are regular reservation trust lands. Based on consultation with BIA, OEA understands that there are no Individual Indian Allotments, which are plots of tribal land allotted to individual tribal members, in the study area.
- The Wells Draw Alternative would avoid Forest Service and Tribal trust land, with a substantial portion of the proposed rail alignment traversing BLM-administered land. The Wells Draw Alternative would require the Coalition acquire the fewest acres of private land, but would acquire the most acreage overall (i.e., approximately twice the acreage needed for the Indian Canyon Alternative).
- The Whitmore Park Alternative would avoid BLM-administered land and would require the Coalition to acquire the most land from private landowners.
- The Indian Canyon Alternative would require the construction of 4.3 miles of tunnel, compared to 5.6 miles for the Wells Draw Alternative and 5.7 miles for the Whitmore Park Alternative.

Table 3.13-6. Acres of Land Acquisition Required for Construction in the Rail Line Footprint and Temporary Footprint

Action Alternative	Acquisition	BLM	Forest Service	SITLA	UDOT	Tribal	Private	Total
Indian Canyon	Rail Line	46.3	166.9	158.5	0.3	121.2	847.3	1,340.5
	Temporary	72.8	234.1	285.4	4.3	257.3	1,613.9	2,467.8
Total		119.1	401.1	443.9	4.5	378.5	2,461.1	3,808.2
Wells Draw	Rail Line	1,571.1	--	326.7	0.0	--	662.2	2,560.1
	Temporary	3,246.2	--	554.4	1.5	--	1,293.2	5,095.2
Total		4,817.3	--	881.1	1.5	--	1,955.4	7,655.3
Whitmore Park	Rail Line	--	167.1	102.5	0.2	118.4	1,042.4	1,430.6
	Temporary	--	233.8	283.0	3.6	254.9	2,312.4	3,087.7
Total		--	400.9	385.5	3.8	373.3	3,354.8	4,518.3

Notes:

BLM = Bureau of Land Management; Forest Service = United States Forest Service; SITLA = Utah School and Institutional Trust Lands Administration; UDOT = Utah Department of Transportation

To compare differences between the Action Alternatives, OEA considered not only the total acreage that the Coalition would need to acquire but also the size of the affected parcels. The Action Alternatives would cross a range of parcel sizes on private land. These include smaller subdivided lots that are typically 2.5 to 10 acres in size, to parcels 10 to 80 acres in size, to larger parcels that

range from over 80 to 640 acres or more in size. In general, OEA anticipates that the Coalition would not have to fully acquire the larger properties. On those parcels, the Coalition could acquire a portion of the property on which to construct the rail line, and the property owner would still be able to use the rest of their land. Where the Action Alternatives would cross smaller parcels, however, OEA expects that the Coalition would likely have to acquire the entire parcel. Therefore, the socioeconomic impacts of construction would be greatest in areas where the proposed rail line would cross many smaller parcels, such as subdivided residential areas. Two such areas that were specifically identified during scoping are Argyle Canyon and the Duchesne Mini-Ranches, both of which are located in Duchesne County.

Argyle Canyon

Between mileposts 13.2 and 16.6, both the Indian Canyon Alternative and the Wells Draw Alternative would cross 18 subdivided parcels (Figure 3.13-1) that are generally 10 acres in size, although some parcels are smaller (5 acres) and some are larger (20 to 40 acres). For four of the parcels, the Coalition would need to temporarily or permanently acquire less than 25 percent of the parcel's total acreage. For five of the parcels, the Coalition would need to temporarily or permanently acquire between 25 and 50 percent of the parcel's total acreage. For nine parcels, the Coalition would need to temporarily or permanently acquire more than 50 percent of the parcel's total acreage. The Whitmore Park Alternative would traverse to the east in this area and avoid this impact on smaller subdivided properties (Figure 3.13-1).

All of the Action Alternatives would tunnel under the subdivided parcels in the vicinity of Argyle Canyon Road (Figure 3.13-1). One residence is located above the tunnel alignment for the Indian Canyon Alternative and the Wells Draw Alternative, while two residences and one other structure are located above the tunnel alignments for the Whitmore Park Alternative. OEA does not expect that acquisition of subsurface easements for tunnels would result in displacement of residential or other structures. Scoping comments indicated that residents in this area are concerned about a range of potential impacts related to tunneling, such as impacts from noise and vibration during tunnel construction, potential effects on ground stability and damage to structures, and effects on seeps and springs. Section 3.6, *Noise and Vibration*, and Section 3.3, *Water Resources*, address these potential impact of tunnel construction.

Under the Wells Draw Alternative, the proposed rail line would cross an additional 21 parcels in the Argyle Canyon area between milepost 19.4 and milepost 22.6. Most of these parcels are less than 10 acres, although there are also some parcels that range in size from 10 to 33 acres. For 10 of those parcels, the Coalition would need to temporarily or permanently acquire less than 25 percent of the parcel's total acreage. For five of the parcels, the Coalition would need to temporarily or permanently acquire between 25 and 50 percent of the parcel's total acreage. For six of the parcels, the Coalition would need to temporarily or permanently acquire more than 50 percent of the parcel's total acreage.

Duchesne Mini-Ranches

Further north in Duchesne County, the Duchesne Mini-Ranches area also has a high density of smaller subdivided residential parcels. Lots in the Duchesne Mini-Ranches are typically 2.5 or 5 acres in size. The Indian Canyon Alternative would cross 24 parcels in this subdivision (Figure 3.13-1). For five of these parcels, the Coalition would need to temporarily or permanently acquire less than 25 percent of the parcel's total acreage. For 12 of the parcels, the Coalition would need to temporarily or permanently acquire between 25 and 50 percent of the parcel's total acreage.

For seven of the parcels, the Coalition would need to temporarily or permanently acquire more than 50 percent of the parcel's total acreage. A portion of the proposed rail alignment through the Duchesne Mini-Ranches would parallel a private road used to access exiting residences. Because this would create at-grade crossings of the rail line with existing driveways, the Coalition has proposed a number of road relocations in this area to provide alternate access to existing residences.

The Whitmore Park Alternative would be located south of the Duchesne Mini-Ranches and would not require the Coalition to acquire properties in this subdivided residential area (Figure 3.13-2). The Wells Draw Alternative would not cross this portion of Duchesne County and, thus, would avoid impacts on the Duchesne Mini-Ranches and the larger subdivided properties to the south.

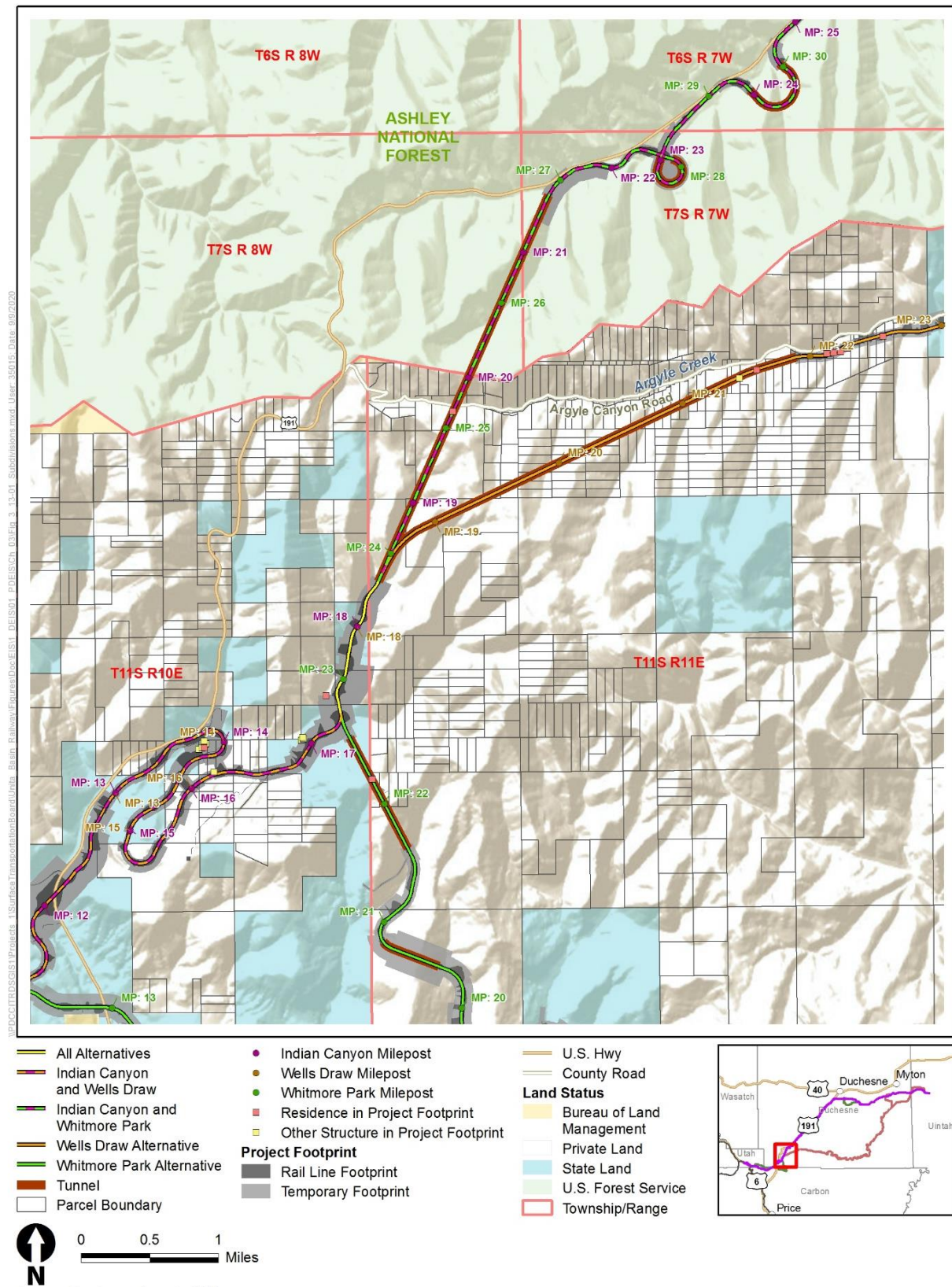
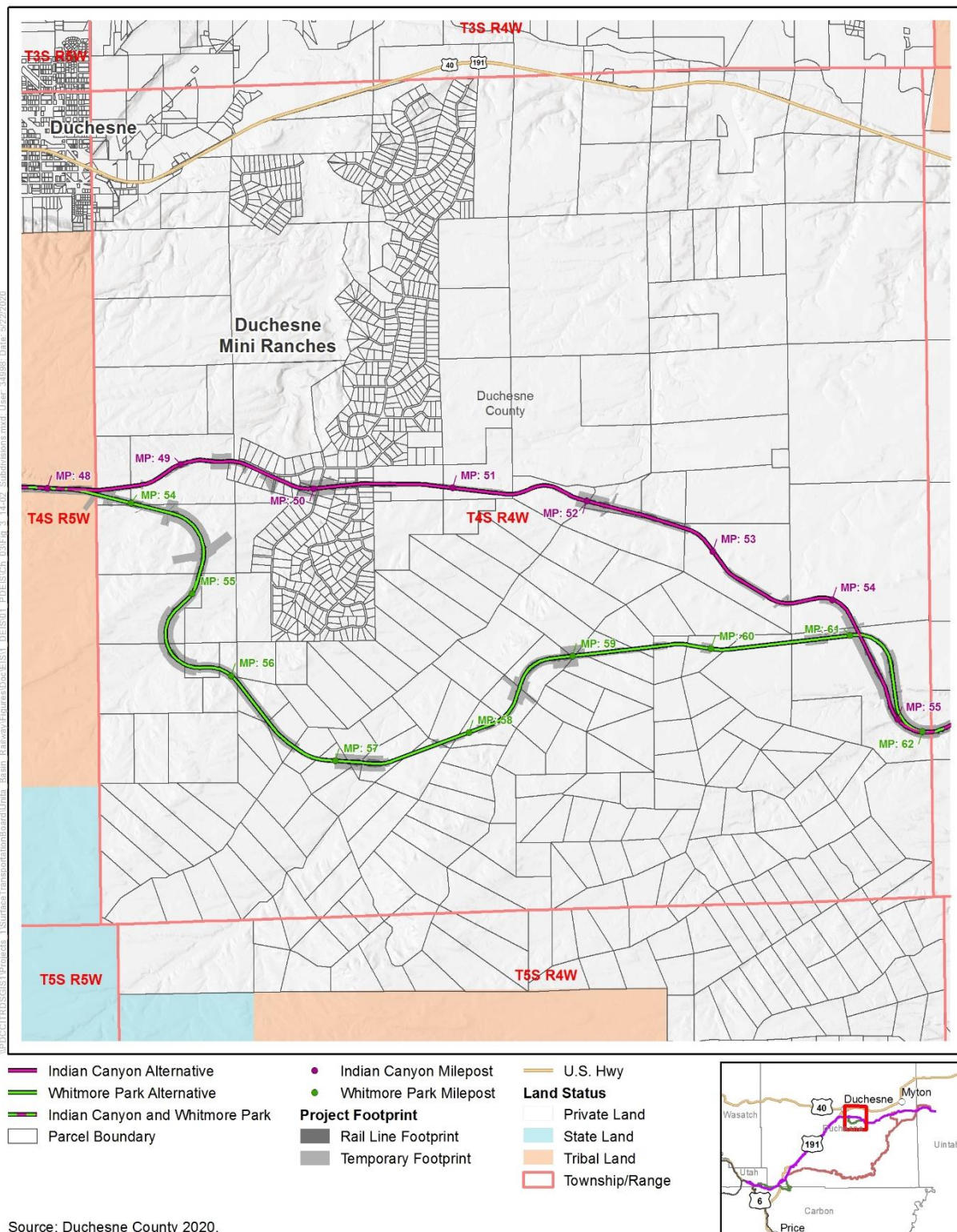
Figure 3.13-1. Subdivided Parcels in the Vicinity of Argyle Canyon

Figure 3.13-2. Subdivided Parcels in the Vicinity of Duchesne Mini-Ranches

Residences and Other Structures

Table 3.13-7 summarizes residences and other structures (such as outbuildings for ranching) located within the rail line footprint and temporary footprint. Residences and other structures located entirely or partially within the rail line footprint would likely be permanently displaced by construction of the Action Alternatives. These include five residences and one other structure under the Wells Draw Alternative, two residences and five other structures under the Whitmore Park Alternative, and one residence and three other structures under the Indian Canyon Alternative. Residences and other structures within the temporary footprint could also be permanently or temporarily displaced, depending on the terms of the temporary construction easement with each landowner. All of the residences within the rail line footprint or the temporary footprint are located on private land. Depending on the Action Alternatives, other structures may be located on private land and/or public land. None of the residences or other structures within the rail line footprint or the temporary footprint for any of the Action Alternatives are located on Tribal trust lands.

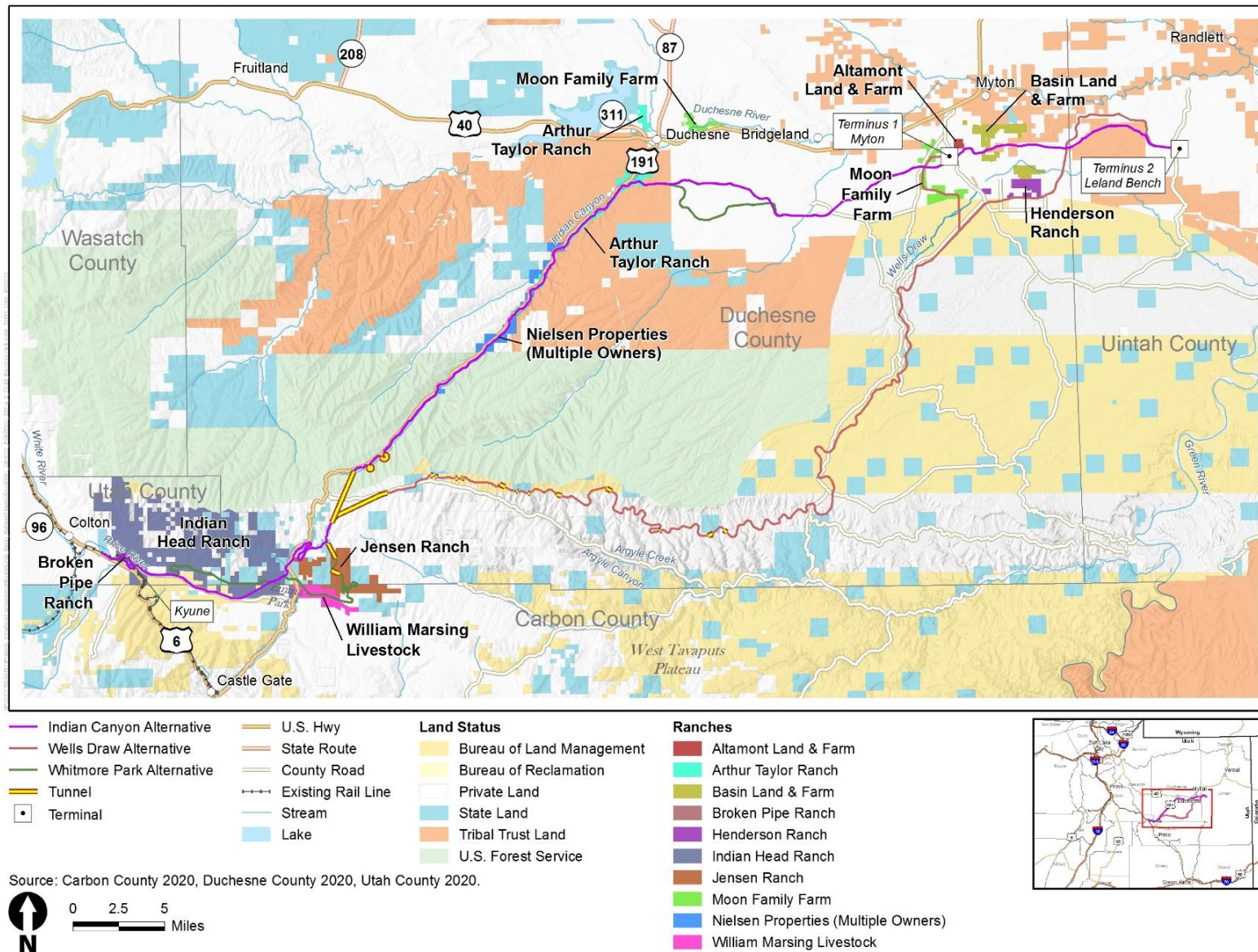
Table 3.13-7. Residences and Other Structures Entirely or Partially within the Rail Line Footprint and Temporary Footprint

Action Alternative	Footprint Type	Residences	Other Structures	Total
Indian Canyon	Rail line	1	3	4
	Temporary	2	16	18
Total		3	19	22
Wells Draw	Rail line	5	1	6
	Temporary	2	11	13
Total		7	12	19
Whitmore Park	Rail line	1	5	6
	Temporary	2	11	13
Total		3	16	19

Ranching and Farming

During scoping, several commenters expressed concerns about the impact of the Action Alternatives on ranching and farming operations. OEA identified ranches and farming operations by reviewing parcel data for owner names that included key words such as *ranch*, *farm*, or *livestock*. Where multiple contiguous parcels with the same owner name were identified, OEA merged the parcel data to create a single parcel for a ranch, farm, or livestock operation. OEA also reviewed scoping comments to identify commenters who included information on their ranching or farming operations and associated those commenters with owner names in the parcel data to map those ranches and farmland that would be crossed by the Action Alternatives.

Figure 3.13-3 shows ranches and farming operations that OEA identified through scoping and review of parcel data. The Indian Canyon Alternative would require the acquisition of land from Indian Head Ranch, Broken Pipe Ranch, Jensen Ranch, Arthur Taylor Ranch, Altamont Land & Farm, Basin Land & Farm, Moon Family Farm, and Nielsen Properties (multiple owners).

Figure 3.13-3. Identified Ranching and Farming Operations

The Wells Draw Alternative would require the acquisition of land from Indian Head Ranch, Broken Pipe Ranch, Jensen Ranch, Henderson Ranch, and Moon Family Farm. The Whitmore Park Alternative would require the acquisition of land from Indian Head Ranch, Broken Pipe Ranch, Jensen Ranch, William Marsing Livestock, Arthur Taylor Ranch, Altamont Land & Farm, Basin Land & Farm, Moon Family Farm, and Nielsen Properties (multiple owners).

Figure 3.13-4 through Figure 3.13-6 show the location of the rail line footprint and the temporary footprint relative to each identified ranch and farming operation. These figures also report the area of land that the Coalition would have to temporarily or permanently acquire from each identified ranch and farming operation for each Action Alternative. This list of affected ranches and farming operations is not exhaustive, but does include the larger ranch and farming operations that OEA identified through review of landowner records, as well as the specific operations identified by commenters during scoping. Construction could also affect other landowners that have ranching and farming operations that were not identified specifically through parcel data searches and scoping comments.

Displaced Economic Activity

Whether public, private, or tribal, land that would be permanently or temporarily acquired would no longer be available for ranching, farming, or other economic activities. Economic activity within temporary construction easements would be displaced during construction only, while economic activity within land that is acquired would be permanently displaced. Construction of the Action Alternatives could also disrupt use of land outside the project footprint if acquisition of land or temporary construction easements would sever contiguous parcels, restrict access to irrigation systems or water supplies, restrict the movements of animals and equipment between different operating areas of a ranch or farm, or reduce the acreage available in an operating area to an acreage that is no longer economical to ranch or farm. To reduce impacts to ranch and farm operations, OEA is recommending mitigation measures requiring the Coalition to compensate landowners for direct loss of agricultural land in the right-of-way and the indirect loss of agricultural land from severance; relocate, replace or provide compensation to landowners for displaced capital improvements; and limit loss of access to agricultural lands by providing alternate temporary access points if main access routes are obstructed during construction (SOCIO-MM-1, SOCIO-MM-2).

To construct any of the Action Alternatives, the Coalition would need to acquire land and temporary construction easements from Indian Head Ranch, Broken Pipe Ranch, William Marsing Livestock, and Jensen Ranch along the westernmost segment of the proposed rail line (Figure 3.13-3). Indian Head Ranch includes multiple parcels with a combined acreage of over 15,000 acres. All of the Action Alternatives would traverse the southern portion of Indian Head Ranch, but the Coalition would need to acquire more land and area for temporary construction easements from Indian Head Ranch to construct the Whitmore Park Alternative (523.1 acres) than to construct the Indian Canyon Alternative or Wells Draw Alternative (264.5 acres). All of the Action Alternatives would cross Broken Pipe Ranch. The Coalition would acquire 15.1 acres of land and a temporary construction easement (or 50.2 percent of the ranch) for the Indian Canyon Alternative or Whitmore Park Alternative. For the Wells Draw Alternative, the Coalition would need to acquire 25.0 acres of land and a temporary construction easement (or 83.2 percent of the ranch).

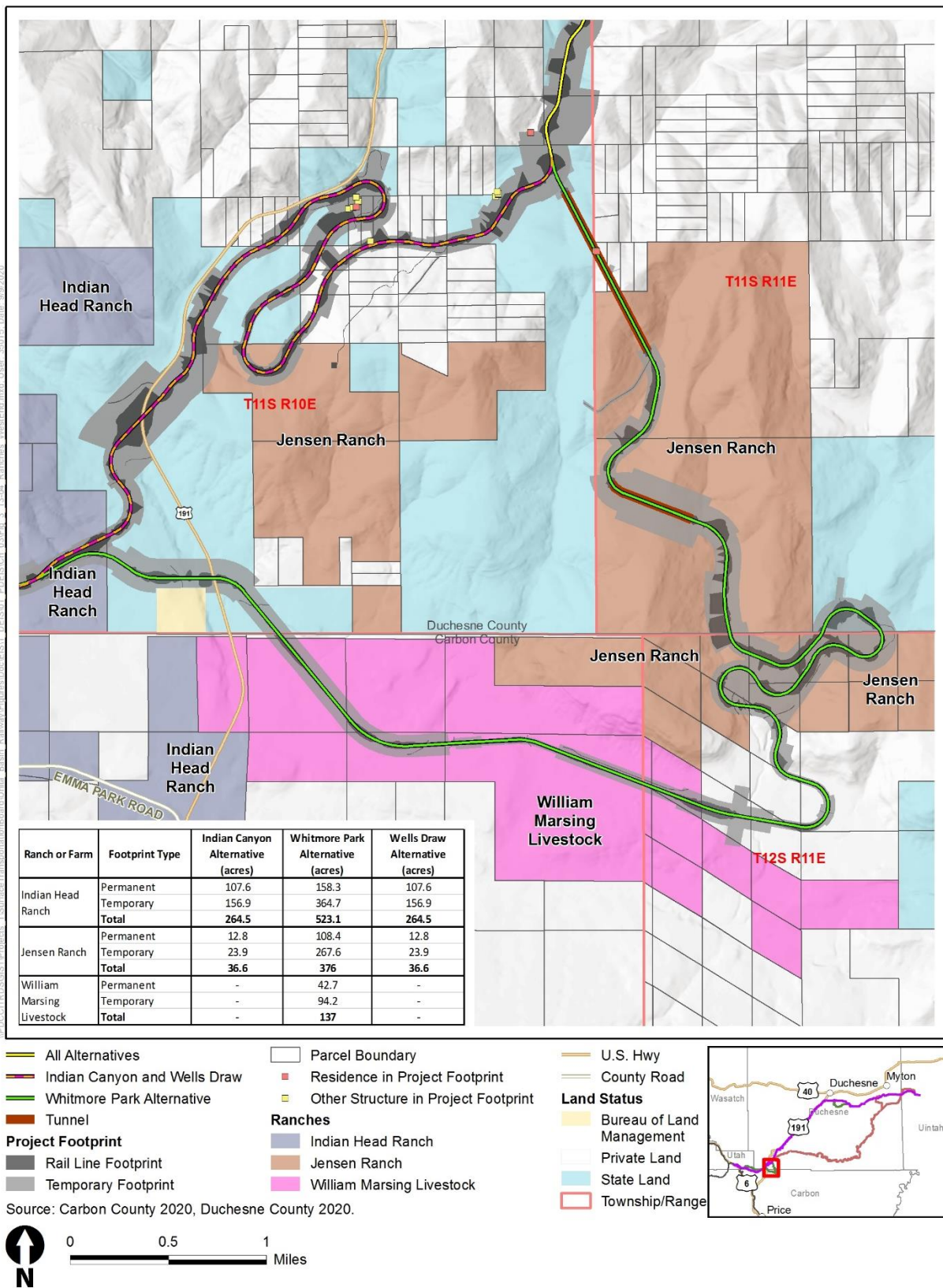
Figure 3.13-4. Ranching and Farming Operations—Western End

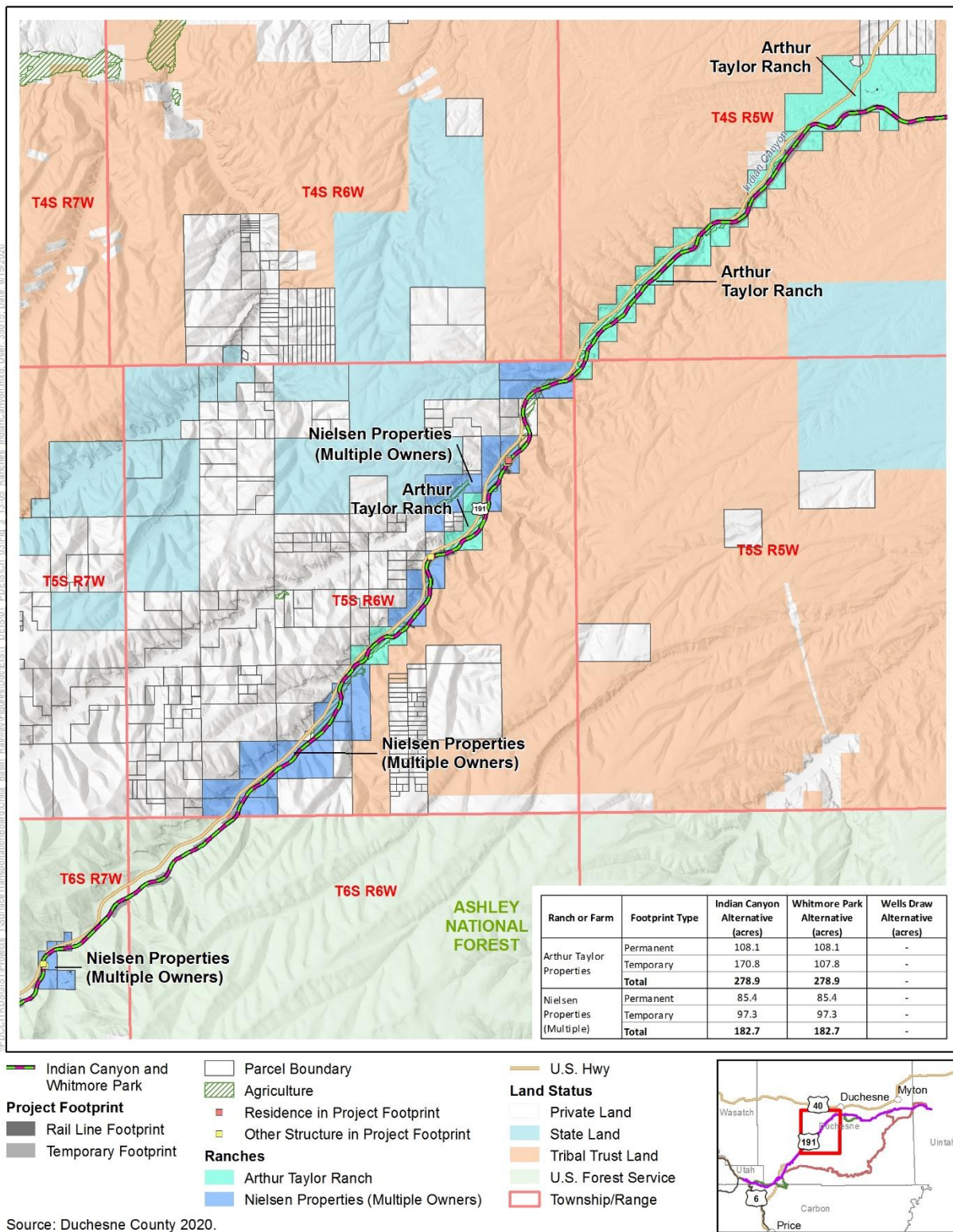
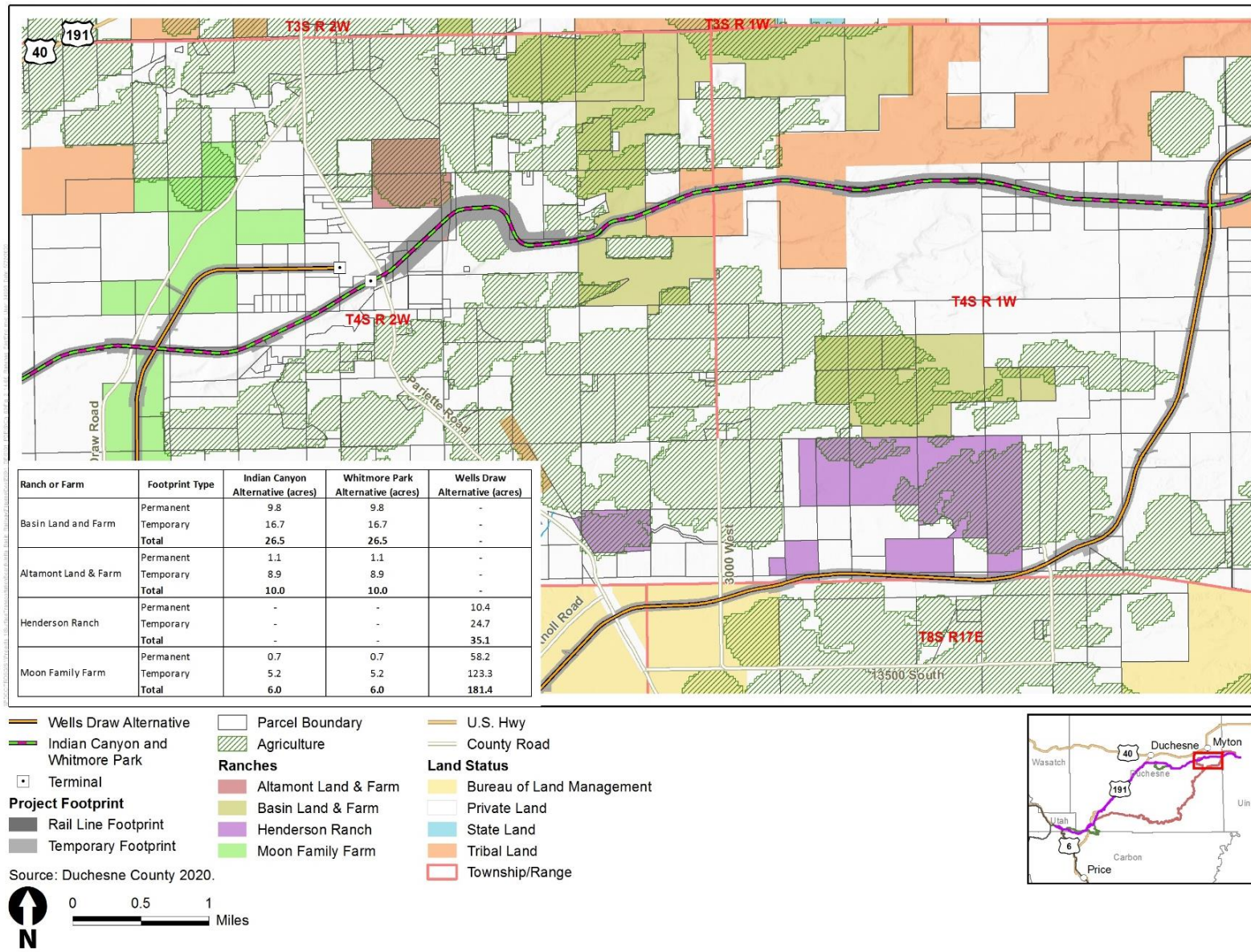
Figure 3.13-5. Ranching and Farming Operations—Indian Canyon

Figure 3.13-6. Ranching and Farming Operations—Eastern End

All of the Action Alternatives would cross Jensen Ranch, but the Coalition would need to acquire substantially more land and area for a temporary construction easement to construct the Whitmore Park Alternative (376.0 acres) than to construct the Indian Canyon Alternative or the Wells Draw Alternative (36.6 acres). Only the Whitmore Park Alternative would cross William Marsing Livestock and the Coalition would need to acquire 137.0 acres of land and a temporary construction easement from that ranch to construct the alternative. The Whitmore Park Alternative would also divide contiguous parcels of both the Jensen Ranch and the William Marsing Ranch (Figure 3.13-4).

Both the Indian Canyon Alternative and the Whitmore Park Alternative would parallel US 191 through Indian Canyon. To construct either of these Action Alternatives, the Coalition would need to acquire 278.9 acres of land and a temporary construction easement from Arthur Taylor properties and 182.7 acres of land and a temporary construction easement from the Nielsen Properties (multiple owners) within Indian Canyon (Figure 3.13-5). Within the canyon, US 191 is aligned to the western side of the canyon, while the proposed rail line would be predominantly aligned to the eastern side of the canyon. The project footprint would occupy the bottom of the canyon, where a perennial stream, ponds and springs provide irrigation for hayfields and pasture, and also water for stock. Because the proposed rail line would be located on the opposite side of the canyon from US 191, rail line construction would generally not impede access to agricultural areas in the canyon, although the acreage available for ranching and farming operations would be reduced. In some locations, the width of the temporary footprint would extend across much of the width of the canyon floor, which would displace any agriculture in those locations. There are also residences, cabins, barns, sheds, and corrals located in the bottom of the canyon, some of which would be displaced by construction of the rail line (Figure 3.13-5). The Coalition would not need to acquire land or temporary construction easements in Indian Canyon to construct the Wells Draw Alternative.

For each of the Action Alternatives, construction on the eastern segment of the alternatives, north of Indian Canyon, would involve acquiring land and temporary construction easements from Basin Land & Farm, Moon Family Farm, Altamont Land & Farm, and Henderson Ranch. The Coalition need to would acquire 26.5 acres of land and a temporary construction easement from Basin Land & Farm, 10.0 acres from Altamont Land & Farm, and 6.0 acres from Moon Family Farm under the Indian Canyon Alternative and Whitmore Park Alternative, and would acquire 181.4 acres of land and a temporary construction easement from Moon Family Farm and 35.1 acres from Henderson Ranch under the Wells Draw Alternative. OEA does not anticipate any significant impacts on center-pivot irrigation agriculture on these three properties (Figure 3.13-6).

As discussed in Section 3.11, *Land Use and Recreation*, there are 15 BLM grazing allotments and two Forest Service grazing allotments that overlap the study area. The Indian Canyon Alternative and the Whitmore Park Alternative would each cross four of the BLM grazing allotments and the two Forest Service grazing allotments. The Wells Draw Alternative would not cross the Forest Service grazing allotments but would cross 15 BLM grazing allotments. Construction of the proposed rail line would temporarily displace grazing activity within the temporary footprint and permanently displace grazing activity within the rail line footprint, reducing the number of Animal Unit Months (AUMs)³ that each allotment can support and potentially disrupting grazing patterns or livestock distribution (Subsection 3.11.3.2, *Impact Comparison between Action Alternatives*, provides a calculation of total AUM loss for each Action Alternative). Based on consultation with BIA, OEA understands that tribal

³ An Animal Unit Month (AUM) is the amount of forage required by one animal unit for 1 month.

grazing range units occur in the vicinity of the study area but are vacant because they are marginal and would require intense management.

Construction Employment, Labor Income, and Value Added

OEA estimated the direct and total employment, labor income, and total market value of all goods and services generated during the construction period under each of the Action Alternatives. Direct employment refers to workers hired directly for rail line construction. Total employment includes—in addition to direct employment—indirect and induced employment. Indirect employment refers to jobs supported through increased demand for construction materials and services. Induced employment refers to jobs supported at businesses where construction workers and rail line employees would spend their incomes. The Coalition developed the estimated construction and operation expenditures, material sources, and assumptions about the labor supply (local versus nonlocal, labor mix by job classification, and average wages and benefits) and reported the estimates to OEA in Response to Information Request No. 3 (Coalition 2019). These inputs informed the IMPLAN analysis conducted for each of the Action Alternatives.

Because it is the longest and the costliest of the Action Alternatives, the Wells Draw Alternative would generate the most employment, the most labor income, and the most additional economic output (or economic value added), followed by the Whitmore Park Alternative and the Indian Canyon Alternative (Table 3.13-8).

Table 3.13-8. Annual Employment, Labor Income, and Value Added Impacts from Construction of the Action Alternatives

Impact Type	Action Alternative ^{a,b}		
	Indian Canyon	Wells Draw	Whitmore Park
Employment (jobs)			
Direct	1,550	1,850	1,630
Indirect	740	930	760
Induced	530	680	620
Total	2,820	3,450	3,000
Labor Income (\$ million)			
Direct	\$149.7	\$195.5	\$158.2
Indirect	\$30.4	\$38.6	\$31.2
Induced	\$16.7	\$21.0	\$20.3
Total	\$196.8	\$255.1	\$209.7
Value Added (\$ million)			
Direct	\$188.5	\$222.3	\$201.1
Indirect	\$62.4	\$78.5	\$63.7
Induced	\$39.6	\$50.6	\$47.0
Total	\$290.6	\$351.3	\$311.8

Notes:

^a All dollar values are in 2020 dollars.

^b Numbers may not sum due to rounding.

Source: Appendix Q, *IMPLAN Analysis Methods and Results*

Economic benefits related to direct, indirect, and induced employment and labor income would extend to tribal members that reside in the four-county study area and to Indian-owned businesses that would benefit from direct, indirect, and induced spending. Based on population size, skilled labor availability and unemployment rates, and distance of travel to the construction area, the Coalition estimated that 5 percent of the construction labor supply would be sourced from the Ute Indian Tribe. For the Indian Canyon Alternative and Whitmore Park Alternative that cross Tribal trust lands, the tribe would negotiate preferential hiring of qualified tribal members through the Ute Tribal Employment Rights Office, which would benefit tribal members seeking direct employment during construction.

As discussed in Subsection 3.13.3.1, *Impacts Common to All Action Alternatives*, the tribe as a producer of crude oil could also benefit from lower transportation costs for shipping crude oil and access to new markets if the proposed rail line is built, and could accrue revenue generated by the operation of the proposed rail line if the tribe becomes an equity partner.

Workforce Demand for Housing and Public Services

OEA estimates that direct employment for rail line construction would be 1,550 jobs for the Indian Canyon Alternative, 1,850 jobs for the Wells Draw Alternative and 1,630 jobs for the Whitmore Park Alternative (Table 3.13-8). The Coalition anticipates that approximately 60 percent of the labor supply would originate from outside the immediate area of Carbon, Duchesne, and Uintah Counties (Coalition 2019). This would be equivalent to 930 workers under the Indian Canyon Alternative, 1,110 workers under the Wells Draw Alternative, and 978 workers under the Whitmore Park Alternative. The Coalition would build dedicated construction camps to house up to 40 workers to support tunnel construction of the Indian Canyon Alternative and Whitmore Park Alternative, and up to 280 workers to support construction of tunnels, embankment, and bridges for the Wells Draw Alternative.

OEA estimated that up to 938 nonlocal construction workers could migrate into nearby communities that are within commuting distance to the Action Alternatives, including the communities of Helper, Price, Wellington, Myton, Roosevelt, Duchesne, Ballard, Vernal, and Naples. OEA expects that the majority of nonlocal construction workers would not bring their families to a remote job site and that the majority of construction workers would use dedicated construction camps or temporary accommodations such as hotels, motels, and RV parks for temporary housing rather than vacant rental properties that may require a lease agreement. Over 2,000 temporary accommodations and over 2,500 vacant housing units are available in these same communities (Table 3.13-2), so OEA anticipates that demand for workforce housing would not exceed available capacity. In addition, because OEA expects construction workers to preferentially reside in temporary accommodations such as hotels, motels, and RV parks, OEA does not expect that the influx of temporary construction workers would have a significant effect on housing prices.

OEA expects that the demand for public services, such as law enforcement and fire protection, would increase in proportion to the increase in population. In 2017, Carbon County, Duchesne County, and Uintah County had over 77,000 residents (Table 3.13-1). The addition of up to 932 nonlocal construction workers to communities in these three counties would represent an up to 1.2 percent increase in population due to construction of the proposed rail line. However, the increase in demand for public services may be considerably higher in some communities with small populations that are close to the Action Alternatives. The communities that could see the greatest change in demand for housing and public services are Helper, Price, Myton, Roosevelt, Duchesne, and Ballard. Increased demand for housing or public services in any of these communities would be temporary.

OEA expects that the majority of temporary construction workers would not bring their families to a remote job site and that impacts on public schools from the in-migration of school-age children arriving with temporary construction workers would not be significant.

State and Local Revenues

Construction of the proposed rail line would require the acquisition of easements on lands administered by SITLA. The Wells Draw Alternative would require the acquisition of 881 acres of easement on state lands, followed by the Indian Canyon Alternative (444 acres), and the Whitmore Park Alternative (386 acres). These easements would generate revenue for SITLA trust beneficiaries that would be distributed to institutional endowments for higher education, special education, and public institutions in the state of Utah (SITLA 2020).

Construction would also generate revenue for the state from state income tax on direct, indirect, and induced labor income (Table 3.13-8). The Coalition estimates that up to 30 percent of the labor supply would originate from distant Utah counties or locations outside Utah. Assuming 70 percent of the annual labor income generated by construction of the Action Alternatives would be subject to state income tax, a state income tax rate of 4.95 percent would generate annual state revenues of up to \$6.8 million under the Indian Canyon Alternative, \$7.3 million under the Whitmore Park Alternative, and \$8.8 million under the Wells Draw Alternative during each year of construction.

Construction would also generate state and local sales and use taxes on direct construction expenditures, as well as taxes on indirect and induced spending. Additional transient room taxes would be generated by nonlocal construction workers who reside in temporary accommodations such as hotels and motels during the construction period. The Coalition's construction cost estimate is \$1.29 billion for the Indian Canyon Alternative, \$1.35 billion for the Whitmore Park Alternative, and \$2.14 billion for the Wells Draw Alternative. Table 3.13-9 summarizes the estimated portion of the total construction cost that would be subject to state sales and use tax, and the revenue that would be generated for the state under each Action Alternative at a tax rate of 4.85 percent.

Table 3.13-9. In-State Taxable Construction Expenditures and State Tax Revenue by Action Alternative

Action Alternative	In-State Taxable Expenditures	State Tax Revenue at 4.85% Tax Rate
Indian Canyon	\$546,000,000	\$26,481,000
Whitmore Park	\$574,000,000	\$27,839,000
Wells Draw	\$921,000,000	\$44,668,500

Local jurisdictions, including county and city governments and the Ute Indian Tribe, may also levy taxes on construction expenditures including local sales and use taxes, county option sales taxes, city or town option taxes, and taxes levied specifically to support transit and highways, or public facilities. The combined sales and use tax rate effective April 1, 2020 is 6.35 percent for Carbon and Duchesne Counties, 6.45 percent for Uintah County, and 7.15 percent for Utah County, while sales and use tax rates in some cities in the study area may be slightly higher (Utah State Tax Commission 2020). Based on the overall construction cost, and estimated direct, indirect, and induced labor income and gross regional product, OEA expects that the Wells Draw Alternative would generate the most state and local tax revenue followed by the Whitmore Park Alternative and the Indian Canyon Alternative.

Construction of the Indian Canyon Alternative or the Whitmore Park Alternative would generate revenue for the Ute Indian Tribe through payments for a right-of-way across Tribal trust lands. Other revenue streams that would directly benefit the tribe include taxes and business fees payable to the tribe. As discussed in Subsection 3.13.3.1, *Impacts Common to All Action Alternatives*, the tribe as a producer of crude oil could also benefit from lower transportation costs for shipping crude oil and access to new markets if the proposed rail line is built, and could accrue revenue generated by operation of the proposed rail line if the tribe becomes an equity partner.

Nonmarket Values and Quality of Life

The Wells Draw Alternative would cross several special designation areas on BLM-administered lands including the Lears Canyon and Nine Mile Canyon Areas of Critical Environmental Concern, the Big Wash and Currant Canyon Lands with Wilderness Characteristics, and the Nine Mile Special Recreation Management Area. In these areas, the Wells Draw Alternative would have unique land use and recreation impacts compared to other Action Alternatives that would also adversely affect nonmarket values and quality of life.

The Indian Canyon Alternative and Whitmore Park Alternative would cross Forest Service lands in Ashley National Forest and would result in disturbances to inventoried roadless areas and would adversely affect the nonmarket value of these areas. All of the Action Alternatives would share a corridor with a scenic byway for a portion of the alignment that could diminish the scenic quality of the byway. The Indian Canyon Alternative and Whitmore Park Alternative would be aligned in the same corridor as the Indian Canyon Scenic Byway, while the Wells Draw Alternative would be aligned adjacent to sections of the Nine Mile Canyon Backcountry Byway. For more information on construction-related quality of life impacts, see Section 3.6, *Noise and Vibration*, Section 3.11, *Land Use and Recreation*, and Section 3.12, *Visual Resources*.

Operations

Displaced Economic Activity

Land acquired for operation of the proposed rail line would no longer be available for ranching, farming, or other economic activities. Impacts during operations would be similar to those for construction, except that fewer acres of ranching and farmland would be permanently affected during operations than would be temporarily affected during construction. To reduce impacts to ranch and farm operations, OEA is recommending mitigation requiring the Coalition to install at-grade crossings and relocating roads to maintain adequate access to and movement within ranches and farms after rail operations begin (SOCIO-MM-2). The maps in Figure 3.13-4 through Figure 3.13-6 show the acreage of land that would no longer be available for ranching and farming on the specific ranches that OEA identified through review of parcel data and scoping comments. Other landowners that have ranching and farming operations that were not identified specifically through a search of the parcel data and scoping comments could also be affected. Temporary and permanent impacts on ranching and farming under each Action Alternative expressed as impacted acreage of irrigated cropland and prime farmland, or impacts on grazing values in terms of AUM loss are estimated in Section 3.11, *Land Use and Recreation*, Table 3.11-5. Grazing allotments crossed by the Indian Canyon Alternative and the Whitmore Park Alternative support an estimated 2,817 AUMs while grazing allotments crossed by the Wells Draw Alternative support an estimated 10,163 AUMs (Section 3.11, Table 3.11-2). Under each of the Action Alternatives, permanent disturbance would

result in a permanent loss of approximately 1 percent of the AUMs supported within grazing allotments crossed by the Action Alternatives.

Employment, Labor Income, and Value Added

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. The Coalition provided annual O&M cost estimates for both a low- and high rail traffic scenario. Annual direct and total employment, labor income, and total estimated economic output during operations would be specific to each Action Alternative, with the Wells Draw Alternative generating the most employment, labor income, and economic value added, followed by the Whitmore Park Alternative and the Indian Canyon Alternative (Table 3.13-10).

Table 3.13-10. Annual Employment, Labor Income, and Value Added Impacts from Operation and Maintenance of the Action Alternatives

Impact Type	Action Alternative ^{a,b}		
	Indian Canyon	Wells Draw	Whitmore Park
Employment (jobs)			
Low Rail Traffic Scenario			
Direct	110	130	120
Indirect	50	60	50
Induced	20	30	30
Total	170	220	190
High Rail Traffic Scenario			
Direct	250	310	270
Indirect	120	140	120
Induced	60	80	80
Total	420	530	470
Labor Income (\$ million)⁵			
Low Rail Traffic Scenario			
Direct	\$5.8	\$7.2	\$6.4
Indirect	\$1.8	\$2.3	\$2.0
Induced	\$0.7	\$0.8	\$0.9
Total	\$8.3	\$10.4	\$9.3
High Rail Traffic Scenario			
Direct	\$16.5	\$20.5	\$18.0
Indirect	\$2.2	\$6.2	\$5.3
Induced	\$3.2	\$2.3	\$2.5
Total	\$23.3	\$29.0	\$25.8

Value Added (\$ million)			
Low Rail Traffic Scenario			
Direct	\$9.6	\$12.0	\$10.6
Indirect	\$3.9	\$4.9	\$4.2
Induced	\$1.7	\$2.0	\$2.1
Total	\$15.2	\$18.9	\$16.8
High Rail Traffic Scenario			
Direct	\$31.4	\$35.3	\$30.9
Indirect	\$4.3	\$13.4	\$11.5
Induced	\$5.4	\$5.6	\$5.7
Total	\$43.6	\$54.3	\$48.1

Notes:

^a All output values are in 2020 dollars. Numbers may not sum due to rounding.

^b Employment is converted from IMPLAN employment to FTE.

Source: Appendix Q, *IMPLAN Analysis Methods and Results*

State and Local Revenues

Under any of the Action Alternatives, easements on lands administered by SITLA would generate revenue for trust beneficiaries. Additionally, all of the Action Alternatives would generate direct, indirect, and induced annual labor income for each year that the proposed rail line is in operation, generating between \$0.4 and \$0.5 million in state revenue under the low rail traffic scenario and between \$1.1 and \$1.4 million in state revenue under the high rail traffic scenario. The Wells Draw Alternative would generate the highest level of revenue, followed by the Whitmore Park Alternative and the Indian Canyon Alternative. Revenue from state and local sales and use taxes on annual O&M expenditures, and indirect and induced spending generated by operation of the proposed rail line would also be generated on an annual basis.

3.13.3.3 No-Action Alternative

Under the No-Action Alternative, the Coalition would not construct and operate the proposed rail line, and there would be no impacts related to socioeconomics.

3.13.4 Mitigation and Unavoidable Environmental Effects

Potential socioeconomic impacts of the proposed rail line include property acquisitions and displacements, displaced economic activity, adverse effects on nonmarket values and quality of life, beneficial effects on the local economy, and increased local and state tax revenue. In general, the Indian Canyon Alternative would have the greatest adverse impact on smaller private property owners because it would cross the most smaller-subdivided properties in the Argyle Canyon and Duchesne Mini-Ranches areas of Duchesne County. The Whitmore Park Alternative would affect the largest area of private property across the three Action Alternatives and would primarily affect larger property owners and ranching and farming operations. The Wells Draw Alternative would affect the smallest area of private property, but would displace the largest number of residences within the project footprint. Because it would be the costliest Action Alternative to construct and operate, the Wells Draw Alternative would create the most jobs and would generate the most local economic benefits and local tax revenue, followed by the Whitmore Park Alternative and the Indian Canyon Alternative.

OEA concludes that the impacts on socioeconomics in terms of displaced properties, displaced economic activities, and nonmarket values would be minor to moderate. The beneficial impacts of the proposed rail line in terms of jobs created would be locally significant during construction and would be minor during rail operations. Beneficial impacts in terms of tax revenue would be minor to moderate. In addition to the Coalition's voluntary mitigation measures, OEA is recommending two mitigation measures to minimize adverse impacts related to socioeconomics (Chapter 4, *Mitigation*).