3.11 Land Use and Recreation

This section describes the impacts on land use and recreation that would result from construction and operation of the proposed rail line. Land uses and recreational resources considered in this analysis include land ownership, land use patterns, land use plans and authorizations, and designated recreational areas. This section also discusses Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 and Land and Water Conservation Fund (LWCF) Section 6(f). The subsections that follow describe the study areas, methods used to analyze the impacts, the affected environment, and the impacts of the Action Alternatives on land use and recreation.

3.11.1 Analysis Methods

This subsection identifies the study areas, data sources, and analysis methods used to analyze potential impacts on land use and recreation.

3.11.1.1 Study Areas

OEA delineated two study areas for the analysis of potential land use and recreation impacts.

- **Land use study area.** The study area for land use includes the project footprint,[1] which includes temporarily and permanently disturbed areas. The study area also includes land for which access would be limited or lost because of construction or operation of each Action Alternative.
- **Recreation study area.** The study area for recreation includes all public general recreational areas and special recreation management areas managed by federal, state, and local land management agencies crossed by the project footprint of the proposed rail line. The study area also includes privately owned recreational facilities and operations that would be affected by the Action Alternatives.

3.11.1.2 Data Sources

OEA reviewed the following data sources to determine the potential impacts on land use and recreation that could result from construction and operation of the proposed rail line.

- Current land use information obtained from publicly available GIS data, topographic maps, and desktop tools, such as GoogleEarth™.
- Federal, state, and local land use plans for the study area, as described in Section 3.11.2.1, *Land Use, Land Use Plans and Authorizations*.

[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.

- Maps, reports and datasets from internet websites for BLM (BLM 2020a), USGS (USGS 2011), and the State of Utah (State of Utah 2020).
- Livestock grazing allotment information provided by the BLM field offices and Ashley National Forest (BLM 2020b; Forest Service 2020a).

3.11.1.3 Analysis Methods

OEA used the following methods to analyze impacts on land use.

- **OEA identified land resources in the study area.** OEA reviewed land ownership maps, aerial photographs, land management plans and regulations, zoning ordinances, and other information available in the public domain to identify land uses and authorizations that could be affected by the proposed rail line. Additionally, OEA obtained publicly available data from federal, state, tribal, and local agencies regarding leasing agreements, conservation easements, and recreational areas.
- **OEA used GIS to visualize and analyze land use impacts.** OEA used spatial data from BLM, the Forest Service, Utah Department of Wildlife Resources, and State of Utah Automated Geographic Reference Center (State of Utah 2020) to identify potential impacts on land uses. Land uses analyzed include agriculture, oil and gas development, residential/ranching activities, and livestock grazing, which is the dominant land use in the study area. OEA analyzed potential impacts on livestock grazing areas by estimating the number of Animal Unit Months (AUMs) that would be lost under each Action Alternative. An AUM is the amount of forage required by one head of cattle (and a suckling calf) for 1 month. To estimate AUM loss, OEA first determined an average of 12 acres per AUM by dividing the total acreage of each allotment in the study area by their existing permitted AUMs. OEA then divided the acreage in each allotment that each Action Alternative would temporarily or permanently disturb by the average acres per AUM (12 acres per AUM).

OEA used the following methods to analyze recreational resources in the study area.

- **OEA identified recreational resources in the study area.** OEA reviewed available recreational data from the BLM, Forest Service, UDWR, and Ute Indian Tribe. OEA reviewed plans and documents to identify site-specific recreational activities, the nature of dispersed-use recreational activities (such as hunting and fishing), and surface land use designations compatible with recreational use. OEA reviewed maps of the Action Alternatives in coordination with publicly available maps of recreational management areas to identify affected areas and key recreation access points and paths. OEA obtained publicly available data from federal, state, and local agencies about recreational areas and activities under their respective jurisdiction or management.
- **OEA used GIS to visualize and analyze recreation impacts.** OEA used GIS to visualize, analyze, and interpret spatial data sources for recreational resources and identify potential consequences of the Action Alternatives on recreation.

3.11.2 Affected Environment

3.11.2.1 Land Use

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

Land Status

Landowners and land management agencies in the study area include federal and state government agencies, Tribal trust lands within the Ute Indian Tribe's Uinta and Ouray Indian Reservation, and numerous private landowners (Chapter 2, *Proposed Action and Alternatives*, Figures 2-1 through 2-3). Table 3.11-1 shows status in the study area by Action Alternative.

Table 3.11-1. Land Status by Action Alternative

Action Alternative	Land Status (acres)[a]						
	BLM	SITLA	Tribal	UDOT	Forest Service	Private	Total
Indian Canyon	119	444	379	5	401	2,461	3,808
Wells Draw	4,817	881	0	1	0	1,955	7,656
Whitmore Park	0	386	373	4	401	3,355	4,518

Notes:

[a] Acreages are rounded to the nearest full acre.

Source: SITLA 2020

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

The Wells Draw Alternative would cross the most public land, followed by the Indian Canyon Alternative and then the Whitmore Park Alternative. Federal land in the study area is managed by the BLM's Price, Salt Lake and Vernal, Utah field offices and by Ashley National Forest. The BLM field offices and Ashley National Forest have guiding plans and documents that set forth allowable land uses within each designated area under the jurisdiction of the governing agency. These plans are discussed below under *Land Use Plans and Authorizations*.

Most of the state land in the study area is managed by the Utah School and Institutional Trust Lands Administration (SITLA). SITLA works with private business to generate revenue from energy and mineral royalties, and real estate and surface development. SITLA lands account for approximately 12 percent of the land in the study areas of the Indian Canyon Alternative and Whitmore Park Alternative and 9 percent of the study area of the Wells Draw Alternative. In addition to SITLA lands, relatively small acreages of the lands owned by UDOT are present in the study area.

Tribal trust lands within the Uinta and Ouray Indian Reservation are located in the study areas of the Indian Canyon Alternative and Whitmore Park Alternative. No Tribal trust lands are located in the study area for the Wells Draw Alternative. However, the Wells Draw Alternative would affect lands and resources under the regulatory jurisdiction of the Ute Indian Tribe and likely cross Indian country lands within tribal jurisdiction as defined in Ute Indian Tribe v. Utah, 773 F.2d 1087 (10th Cir. 1985) and Ute Indian Tribe of the Uintah and Ouray Reservation v. State of Utah, 114 F.3d 1513 (10th Cir. 1997). Based on consultation with BIA, OEA did not identify any Individual Indian Allotments, which are plots of Tribal trust land allotted to individual tribal members in the study area. During ongoing government-to-government consultation between OEA and the Ute Indian

Tribe, the Ute Indian Tribe has not provided OEA with any specific land use plans that the Coalition would need to comply with in order to construct and operate the proposed rail line (Chapter 5, Section 5.3, *Tribal Coordination and Consultation*). If the Board were to authorize the proposed rail line, the Coalition would need to continue to consult with the Ute Indian Tribe during the final design phase to ensure that construction and operation of the proposed rail line on land under the tribe's jurisdiction would be consistent with the tribe's requirements. Most of the land in the study areas of the Indian Canyon Alternative and Whitmore Park Alternative is privately owned (approximately 65 and 74 percent of each study area, respectively). Approximately 26 percent of land in the study area of the Wells Draw Alternative is privately owned. These private lands are primarily used for agricultural purposes, including cattle ranching operations.

Existing Land Uses

The majority of the study area is rural and sparsely populated. Five residences are located in the study area of the Indian Canyon Alternative and Whitmore Park Alternative, and nine residences are located in the study area of the Wells Draw Alternative. The primary land use for all land ownerships is livestock grazing. Principal or major uses of federal lands in the study areas of all Action Alternatives include livestock grazing, oil and gas production, and recreation. Due to the semi-arid and arid climates present in the study area, agricultural production is generally limited to irrigated land along watercourses or in areas where sufficient supplies of groundwater are available for irrigation. Approximately 237 acres of irrigated cropland occurs in the study areas for the Indian Canyon Alternative and Whitmore Park Alternative; approximately 41 acres of irrigated cropland is present in the study area of the Wells Draw Alternative (State of Utah 2020).

There are 15 BLM grazing allotments and two Forest Service grazing allotments that overlap the study area. The Indian Canyon Alternative and Whitmore Park Alternative would cross portions of two Forest Service grazing allotments, Left Fork of Indian Canyon and Mill Hollow, and four BLM grazing allotments, Kyune I, Kyune II, Price Canyon-West, and West Fork. The Wells Draw Alternative would not cross any Forest Service grazing allotments, but would cross portions of all 15 BLM grazing allotments in the study area: Antelope Powers; Argyle Ridge; Big Wash; Castle Peak; Currant Canyon; Eight Mile Flat; Five Mile; Kyune I; Kyune II; Lears Canyon; Parleys Canyon; Price Canyon-West; Water Canyon #2; Wells Draw; and West Fork (BLM 2020b; Forest Service 2020a). Although the majority of the allotments are for cattle, horses are also found on two of the allotments and sheep are found on one grazing allotment. The Indian Canyon Alternative and Whitmore Park Alternative would cross one Forest Service horse pasture, the Indian Canyon Horse Pasture. OEA understands that tribal grazing range units occur in the vicinity of the study area but are vacant because they would require intense management. Additional tribal grazing range unit data were not available for the study area. Table 3.11-2 shows the acreage of grazing allotments that overlap the study area by land ownership, and the total number of current AUMs for the entire extent of the allotments, by Action Alternative.

Table 3.11-2. Grazing Allotments and Animal Unit Months in Study Area

Action Alternative	Grazing Allotment Acreage[a]					Existing AUMs[b]
	BLM	Forest Service	SITLA	Private	Total	
Indian Canyon	119	398	107	396	1,020	2,817
Wells Draw	4,759	0	413	509	5,681	10,163
Whitmore Park	0	398	198	714	1,310	2,817

Notes:

[a] Allotments in the study area are managed by the BLM and Forest Service; however, allotments include federal, state, and private lands.

[b] Existing AUMs reported are for the entire extent of allotments crossed by the Action Alternatives. Total existing AUMs for all 15 BLM grazing allotments equals 10,163 AUMs. The Forest Service Left Fork of Indian Canyon and Mill Hollow allotments have 521 AUMs and 795 AUMs, respectively.

Source: BLM 2020b, Forest Service 2020a; Remund-Kaminski pers. comm.

BLM = Bureau of Land Management; Forest Service = United States Forest Service; SITLA = Utah School and Institutional Trust Lands Administration; AUM = Animal Unit Month

Oil and gas development occurs on federal, private, state and Tribal trust land in the study area. BLM is the main federal administrating agency for oil and gas leasing and development in the study area. Oil and gas leasing of federal mineral rights can occur in areas where BLM is the surface and mineral owner, or in places where the surface rights are privately owned but the federal government owns the mineral rights (referred to as split estate lands). Table 3.11-3 lists the number of existing federal oil and gas leases and total acreage held under current oil and gas leases in the study area. Other tribal, state, and private leases may occur in the study area. Section 3.8, *Energy*, provides a description of oil and gas wells in the study area by lease ~~ownership~~type.

Table 3.11-3. Existing Federal Oil and Gas Leases in the Study Area by Action Alternative

Action Alternative	Existing Federal Oil and Gas Leases	
	Number of Leases	Acres
Indian Canyon	2	69
Wells Draw	46	2,705
Whitmore Park	1	70

Notes:

Source: BLM 2020c

As identified through agency consultation between BLM and OEA, the Wells Draw Alternative would pass through designated mineral material sites and special tar sand areas on BLM-administered land and mineral estate. The mineral material sites include areas open for public and commercial stone collection. The special tar sand areas, including Argyle Canyon, Sunnyside, and Pariette, were identified by BLM for future commercial tar sand leasing in the 2013 *Programmatic EIS for Oil Shale and Tar Sands* (BLM 2013). Tar sands are sedimentary rocks containing a heavy hydrocarbon compound called bitumen, which can be refined into oil.

Land Use Plans and Authorizations

The following land use plans guide the management of federal lands in the study area.

- *Pony Express Resource Management Plan* (BLM 1990)
- *Price Field Office Record of Decision and Approved Resource Management Plan* (BLM 2008a)

- *Vernal Field Office Record of Decision and Approved Resource Management Plan* (BLM 2008b)
- *Land Resource Management Plan for the Ashley National Forest* (Forest Service 1986) (LRMP)

The Federal Land Policy and Management Act (FLPMA) of 1976 requires that public lands be managed on a "multiple use and sustained yield basis" (FLPMA Sec. 302(a) and Sec. 102(7)). Allowable land uses in the area covered by each resource management plan (RMP) and the LRMP are defined in each of the plans listed above. For proposed projects that are not compatible with current allowable uses identified in the BLM RMPs or Ashley National Forest LRMP, amendments to the plans may be necessary. Chapter 2, *Proposed Action and Alternatives*, Section 2.2.3, *Alternatives Analyzed in the EIS*, provides a discussion of amendments needed from other agencies for the three Action Alternatives.

Projects crossing state or federal lands require right-of-way grants, special use permits, easements, or other authorizations. Utah Administrative Code R850 lists and defines SITLA agency rules, including the lease, sale, or exchange of SITLA lands. Planning documents, including the RMPs and LRMP applicable to the study area identify constrained areas where future rights-of-way are discouraged (designated avoidance areas) or denied (designated exclusion areas) on federal land. Applications for linear rights-of-way within BLM- or Forest Service-designated avoidance areas can be processed if the proposed project would meet the goals and objectives of the applicable BLM RMP, or the standards and guidelines of the Forest Service LRMP for resources within the designated avoidance areas. Additionally, special designation areas identified in the BLM RMPs and Forest Service LRMP may have additional restrictions on allowable land uses for the protection of sensitive resources. Section 3.11.2.2, *Recreation*, provides a discussion on special designations in the study area.

The proposed rail line would cross portions of privately owned land in Utah, Carbon, Duchesne, and Uintah Counties. Allowable land uses on private lands are typically covered in county land use plans or zoning ordinances. The guiding land use plans for the counties in the study area include:

- *Utah County General Plan* (Utah County 2014)
- *Utah County Land Use Ordinance* (Utah County 2011)
- *Carbon County Master Plan* (Carbon County 1997)
- *Carbon County Natural Resource Use and Management Plan* (Carbon County 2010)
- *Duchesne County General Plan* (Duchesne County 2017)
- *Duchesne County Zoning Ordinance* (Duchesne County 2012)
- *Uintah County General Plan* (Uintah County 2011)
- *Uintah County Code of Ordinances* (Uintah County 2005)

Special Designations

Special designations are units of land managed by federal or state agencies for the protection and enhancement of specific resource values that are unique to that area and require more intensive management emphasis than is applied to surrounding public lands. Agency-designated special designations in the study area include Areas of Critical Environmental Concern (ACECs), Lands with Wilderness Characteristics, and Forest Service Inventoried Roadless Areas (IRAs). Congressionally

designated special designations (e.g., national wildlife refuges, national monuments, wilderness areas, wilderness study areas, wild and scenic rivers, national conservation areas, and national historic and scenic trails) are not located in the study area. Special Recreation Management Areas (SRMAs) are discussed in Section 3.11.2.2, *Recreation*.

ACECs are an administrative BLM designation made through a land use plan and are defined as an area "within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards" (43 U.S.C. § 1702). Two ACECs (Lears Canyon and Nine Mile Canyon) have been designated on BLM-administered lands in the study area for the Wells Draw Alternative (Figure 3.11-1). The Lears Canyon ACEC contains important plant communities that once had a much wider geographical range (relict communities). Nationally significant Fremont, Ute, Archaic rock art and structures, and special status plant habitat comprise the relevant and important ACEC values of the Nine Mile Canyon ACEC (BLM 2008b). No ACECs have been designated in the study areas for the Indian Canyon Alternative or Whitmore Park Alternative.

Figure 3.11-1 shows the special designations and recreation areas in the study area of the three Action Alternatives and the federal and state highways, county roads, Forest Service roads, and scenic byways in the vicinity of these areas.

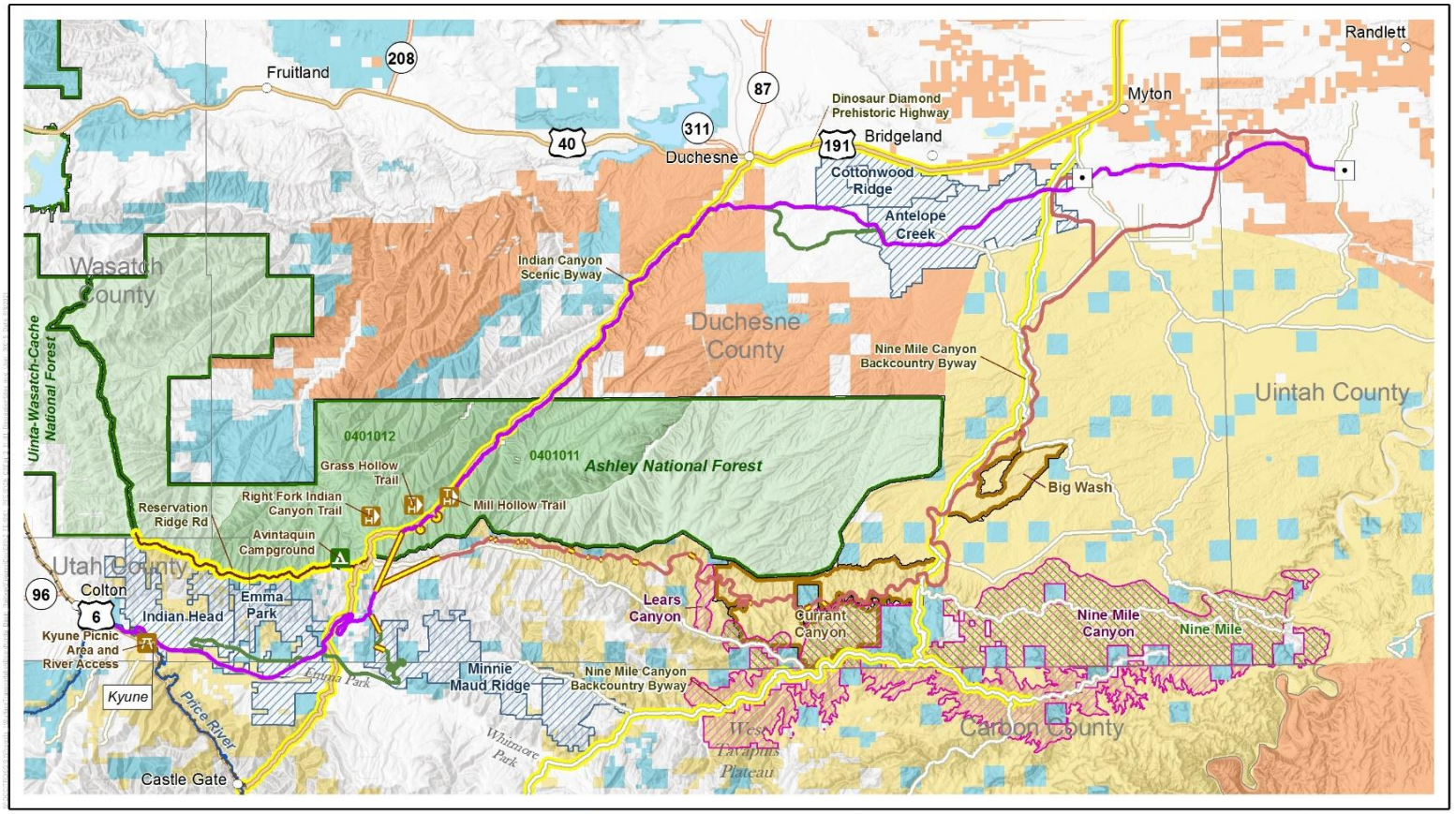
Lands with Wilderness Characteristics are areas having 5,000 acres of, or areas less than 5,000 acres that are contiguous to, designated wilderness, wilderness study areas, or other lands administratively endorsed for wilderness; or in accordance with the Wilderness Act's language, areas "of sufficient size as to make practicable its preservation and use in an unimpaired condition" (BLM 2008b). BLM has determined that two Lands with Wilderness Characteristics areas in the study area for the Wells Draw Alternative (Big Wash and Currant Canyon) meet the size, naturalness, and outstanding solitude/outstanding primitive and unconfined recreation criteria (Figure 3.11-1). No Lands with Wilderness Characteristics have been designated in the study areas for the Indian Canyon Alternative or Whitmore Park Alternative (BLM 2008b).

IRAs are Forest Service lands that have been identified as lands without existing roads that could be suitable for roadless area conservation. The 2001 Roadless Rule (36 C.F.R. Part 294) establishes prohibitions on road construction, road reconstruction, and timber harvesting on inventoried roadless areas of National Forest System Lands. Approximately 394 acres, or 98 percent of Forest Service lands in the study areas of the Indian Canyon alternative and Whitmore Park Alternative have been identified as within IRA~~s~~ #0401011 (Figure 3.11-1). There are no Forest Service lands or IRAs in the study area for the Wells Draw Alternative.

Uintah and Ouray Reservation and Indian Trust Assets

According to the Utah Division of Indian Affairs, the Ute Indian Tribe of the Uintah and Ouray Reservation is the second largest Indian Reservation in the United States and covers 4.5 million acres of northeastern Utah (Utah Division of Indian Affairs 2019). Over half of the tribal membership chooses to live on the Uintah and Ouray Reservation (Ute Indian Tribe 2013), which occupies a large percentage of the land area in Uintah and Duchesne counties. The Indian Canyon Alternative and Whitmore Park Action Alternative cross approximately 379 acres and 373 acres of Tribal trust land, respectively. The Ute Indian Tribe also controls tribal mineral rights in the Basin and receives royalties from oil and gas production from those mineral rights.

Figure 3.11-1. Special Designations and Recreation Areas



Tribal trust lands and mineral rights are held in trust by the United States government and are administered by BIA, a cooperating agency for this EIS. A formal management plan does not exist for the Uintah and Ouray Reservation; however, the elected Ute Indian Tribe Business Committee and BIA determine approval of land use activities on Tribal trust lands. The regulatory responsibilities of BIA include promoting the economic development objectives of the Ute Indian Tribe under its government-to-government relationship with, and trust responsibility to, the tribe.

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally recognized Indian tribes or individual Indians (e.g., Reclamation 2009: Section 4.19-1 and Reclamation 2017: Section 19). ITAs may include land, minerals, federally reserved hunting and fishing rights, federally reserved water rights and claims, and instream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally recognized Indian tribes with trust land; the United States is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the United States. OEA requested information on ITAs located near the proposed rail line from the Ute Indian Tribe, BIA (Western Region Office), and BLM. OEA did not identify ITAs outside of Tribal trust lands in the study area.

Conservation Easements

Conservation easements in Utah are used for a variety of purposes such as preserving and maintaining land or water areas predominantly in a natural, scenic, or open condition, or for recreational, agricultural, cultural, wildlife habitat or other use or condition consistent with the protection of open land (Utah Code 57-18). ~~There are no conservation easements in the study area~~ One conservation easement, the Indian Canyon Conservation Easement (UDWR deed number 348092), has been identified in the study area for the Indian Canyon Alternative and Whitmore Park Alternative. The Indian Canyon Conservation Easement is located in Sections 14, 15, and 22, Township 4 South, Range 5 West of Duchesne County (State of Utah 2020; NCED 2021). No additional conservation easements have been identified in the study area.

Section 4(f) and Section 6(f) Resources

Section 4(f) of the USDOT Act (49 U.S.C. § 303(c)) (Section 4(f)) applies to USDOT agencies and protects recreational areas, wildlife and waterfowl refuges, and historic properties or archaeological sites, whether publicly or privately owned, on or eligible for listing in the National Register of Historic Places. The Board is an independent decision-making body that is not part of USDOT and, as such, Section 4(f) is not applicable to Board actions. Because the proposed rail line would not require approval from an USDOT agency, nor would it require the involvement of the Federal Railroad Administration for grant funding, Section 4(f) does not apply to the proposed rail line.

Section 6(f) of the LWCF (16 U.S.C. §§ 460l–4 et seq.) provides the following.

> No property acquired or developed with assistance under [the Land and Water Conservation Fund Act], without the approval of the Secretary [of Interior], be converted to other than public outdoor recreational uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreational properties of at least equal fair market value and of reasonably equivalent usefulness and location (16 U.S.C. § 460l-4 et seq.).

Section 6(f) is intended to protect parks and other recreational resources from conversion to other uses. Section 6(f) applies only to those state, county, or local recreational resources that have received funding through LWCF. OEA reviewed the list of properties acquired or funded through the LWCF and determined that there were no LWCF properties along the Action Alternatives (Utah Division of Parks and Recreation 2016). As a result, no properties protected by LWCF Section 6(f) would be converted to a nonrecreational use as a result of construction and operation of the proposed rail line.

3.11.2.2 Recreation

Federal Recreation Areas

Ashley National Forest

Managed by the Forest Service, Ashley National Forest consists of nearly 1.3 million acres in the northeastern portion of Utah and the southwestern portion of Wyoming. Recreational activities include hunting, fishing, snowmobiling, snowshoeing, cross-country skiing, hiking, picnicking, bicycling, renting cabins, camping, caving, climbing, horseback riding, nature viewing, off-highway vehicle (OHV) riding, scenic driving, and winter sports (Forest Service 2020b). The portion of the Ashley National Forest in the study areas for the Indian Canyon Alternative and Whitmore Park Alternative along U.S. Highway 191 (US 191) provides access to the trailheads of the Right Fork Indian Canyon Trail, Grass Hollow Trail, and Mill Hollow Trail (Figure 3.11-1). These trails are open to hiking, horseback riding, mountain biking, and dispersed camping (Forest Service 2020b). The Avintaquin Campground is located atop Indian Canyon off US 191, approximately 2.4 miles west of the study areas for the Indian Canyon Alternative and Whitmore Park Alternative (Figure 3.11-1). Visitors come to the area for its scenic beauty, birding, hunting, and wildlife viewing opportunities and to explore the Reservation Ridge Scenic Backway (Forest Service 2020c).

Bureau of Land Management

Recreational opportunities on BLM-administered lands within the BLM Price, Salt Lake, and Vernal field offices include, but are not limited to, camping, scenic backcountry driving, OHV use, hiking, horseback riding, hunting, fishing, mountain biking, rock climbing, wilderness backpacking, wildlife viewing, nature photography, and rock hounding (BLM 1990; 2008a, 2008b). BLM-administered lands are limited (119 acres) in the study area of the Indian Canyon Alternative, and the Whitmore Park Alternative avoids BLM-administered lands entirely.

All BLM-administered lands within the Indian Canyon Alternative (119 acres), and the majority of BLM-administered lands within the Wells Draw Alternative are located in an Extensive Recreation Management Area (ERMA). ERMAs are areas where dispersed recreation is encouraged and where visitors have recreational freedom-of-choice with minimal management controls. ERMAs can also include developed and primitive recreational sites with minimal facilities, none of which are located in the study area (BLM 2008b).

The study area for the Wells Draw Alternative includes approximately 64 acres of the Nine Mile ~~Canyon~~ SRMA (Figure 3.11-1). BLM manages SRMAs to provide special recreational opportunities that would not otherwise be available to the public, reducing conflicts among users, minimizing damage to resources, and reducing visitor health and safety problems. Recreational opportunities within or along these areas may be developed or dispersed. BLM manages the Nine Mile SRMA to protect high-value cultural resources and scenic quality and provides various recreational

opportunities, including hiking, backpacking, rock art viewing, and historic inscriptions (BLM 2008b). There are no designated SRMAs in the study areas for the Indian Canyon Alternative or the Whitmore Park Alternative.

State Recreational Areas and Facilities

The Utah Outdoor Recreation Plan is Utah's State Comprehensive Outdoor Recreation Plan (Utah Department of Natural Resources and the Utah Division of Parks and Recreation 2019). The Utah Outdoor Recreation Plan includes an overview of statewide recreation supply and needs based on a survey of recreational professionals throughout the state of Utah and a statewide survey of residents. Goals of the plan include providing funding and support for the development of outdoor public recreation, renovating existing public outdoor recreational facilities, and improving awareness of Utah's LWCF program.

SITLA allows public access to most trust lands for recreational activities including hunting, fishing, hiking, camping, and OHV use. However, SITLA reserves the right to withdraw or restrict recreational access on trust lands to meet its mandate of generating revenue to support the trust beneficiaries (Utah Department of Natural Resources and the Utah Division of Parks and Recreation 2019).

UDWR administers the Cooperative Wildlife Management Unit (CWMU) program to recognize the contribution made by private landowners in providing big game habitat on their private land. CWMUs are hunting areas consisting of mostly private land that have been authorized for the specific purpose of managing and hunting certain big game species (Figure 3.11-1). Table 3.11-4 lists the existing CWMUs in the study area by Action Alternative.

Table 3.11-4. Existing Cooperative Wildlife Management Units in the Study Area

Action Alternative	CWMU/Unit Identification Number
Indian Canyon	Antelope Creek/581
	Cottonwood Ridge/824
	Emma Park/538
	Indian Head/735
Wells Draw	Antelope Creek/581
	Emma Park/538
	Indian Head/735
Whitmore Park	Antelope Creek/581
	Emma Park/538
	Indian Head/735
	Minnie Maud Ridge/551

Notes:
Source: UDWR 2020
CWMU = Cooperative Wildlife Management Unit

Other Recreational Uses in the Study Area

As discussed in Section 3.3, *Water Resources*, the Price River is the largest perennial stream in the study area in terms of width (varies from about 20 to about 45 feet) and flow. Segments of the Price River are frequented by whitewater paddlers, especially outside of the study area through Price

Canyon, below Scofield Reservoir, and also in the study area along U.S. Highway 6 near Kyune, Utah where an important river access point is located adjacent to Kyune Pass Road (Figure 3.11-1) (Southwest Paddler 2014; American Whitewater 2021). Generally, the Price River is not considered suitable for rafting due to low-flow volume flows and narrow channels that make steering larger watercraft difficult (Southwest Paddler 2014). April through June is considered peak season for canoe and kayak paddling the Price River when flows are suitable following rainfall events and snowmelt at higher elevations (Southwest Paddler 2014). Segments of the Price River in the study area are frequented by anglers, and as described in Subsection 3.4.2.2, *Fish*, are managed by UDWR for cold water fishery beneficial use.

3.11.3 Environmental Consequences

Construction and operation of the proposed rail line could result in impacts related to land use and recreation. 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 the status of land use and recreation under the No-Action Alternative.

3.11.3.1 Impacts Common to All Action Alternatives

Land Use

This subsection discusses potential impacts on land use that would be the same across the three Action Alternatives.

Construction

Land Ownership

Construction of the proposed rail line would permanently change land ownership or control under all of the Action Alternatives. The acquisition or easement and associated conversion of land needed for the proposed rail line would preclude public, private, and/or Tribal trust lands from being used for other purposes, such as grazing, agriculture, and mineral development.

Construction of the Action Alternatives would result in temporary road closures, which could affect access to properties near the proposed rail line. The Coalition has proposed voluntary mitigation (VM-3) to implement traffic-control measures, such as detours and signage to minimize impacts and the potential for delays. Construction of the Action Alternatives would involve road realignments in some locations to ensure that levels of access prior to construction are maintained. OEA is recommending that the Board impose mitigation (VSD-MM-1) requiring the Coalition consult with appropriate agencies in designing road realignments to minimize disruption to existing traffic.

Construction of the proposed rail line could sever properties. Severance in this context is defined as the rail line footprint crossing a contiguous property in such a manner as to render the property or portions of the property unsuitable for their current use. Irrigated farmland could also be severed if irrigation systems (e.g., sprinklers, pivots, and drainage systems) no longer function on both sides of the rail line footprint. In the case of farmland irrigated by drainage ditches and other gravity-fed systems crossed by the proposed rail line, water flow to the irrigated lands on the downhill side of the rail line could be disrupted. This type of severance could be mitigated by installing certain improvements (e.g., culverts that allow for continuous drainage). Rail construction could also

disrupt the use of acreage outside the rail line footprint if land acquisition for construction would 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. Section 3.13, *Socioeconomics,* provides additional analysis of impacts associated with acquisitions, displacements, and severance, including OEA's recommended mitigation measures (SOCIO-MM-1, SOCIO-MM-2).

Existing Land Use

Construction of any of the Action Alternatives would permanently change existing land use and land designations. Construction activities would temporarily impede movement across the study area and could affect land uses in the study area by creating a barrier-restricting access to properties. Once constructed, the proposed rail line could create a barrier, limiting legal access across the rail line footprint to designated crossings. As part of the preliminary design, the Coalition plans to install grade-separated and at-grade crossings at public roads, private roads or drives, and roads owned by the Ute Indian Tribe (if crossed by the Action Alternatives). However, not all roads and drives that would be crossed by an Action Alternative would have a designated crossing; access would be impeded by the proposed rail line in these cases.

Construction of the Action Alternatives could displace or interfere with existing land uses and improvements along the proposed rail line. Development of the proposed rail line could result in the displacement of groundwater wells or other capital improvements located in the study area. Section 3.3, *Water Resources*, addresses potential impacts on groundwater wells. Construction of all Action Alternatives would require the closure or relocation of existing oil or natural gas production wells. Section 3.8, *Energy*, addresses the analysis of impacts on oil and gas development. Each of the Action Alternatives would cross through forest and woodland areas and may require the removal of forest products. OEA is recommending mitigation that would require the Coalition to adhere to reasonable conditions imposed by land management agencies in any right-of-way authorization, which may include compensating land management agencies for removal of forest products (LUR-MM-2, LUR-MM-3, LUR-MM-4, LUR-MM-5, LUR-MM-6).

All of the Action Alternatives would require crossing existing rights-of-way. Section 3.8, *Energy*, lists existing utility corridors that would be crossed by the Action Alternatives. Any crossing of utility rights-of-way would occur in accordance with applicable regulatory standards (Appendix B, *Applicable Regulations*). To ensure that impacts on utility corridors are minimized, the Coalition has proposed voluntary mitigation (VM-47) to secure agreements with utilities to establish responsibility for protecting or relocating existing utilities, if affected by construction. In addition, OEA is recommending mitigation (ENGY-MM-3) requiring the Coalition to ensure that industry standards are met in the event that temporary or permanent utility relocation is needed and to coordinate any alterations with utility service providers to avoid interruption of utility services to customers. During the land acquisition process, the Coalition would coordinate with rights-of-way holders and the land management agencies or landowners for any authorized rights-of-way that would be crossed by the proposed rail line.

Agriculture

Construction could also result in the loss of grazing lands and AUMs for livestock in the study area. Indirect impacts on livestock grazing would include the potential spread of noxious weeds and invasive plant species (including new species not already present in the study area), alteration of livestock distribution and forage utilization, potential impacts on livestock management, and the

potential loss of access to range improvements, such as fenced areas, wells, or other facilities, located in the study area. Potential impacts on livestock management could include the loss of forage, fragmentation of grazing allotments, potential disruptions to lambing and/or calving areas, and increased mortality and injuries to livestock resulting from increased vehicle traffic. Construction could also result in the disruption of grazing patterns and livestock distribution, which could result in some areas of pasture being grazed lightly while other areas could be over used by displaced livestock. Additionally, temporary displacement of livestock from range improvements, preferred grazing areas and water sources could occur during construction. Following construction activities, noxious weeds and invasive plant species could readily spread and colonize areas that typically lack or have minimal vegetation cover or areas that have been recently disturbed.

Operations

Crops and Livestock

Operation activities, such as the movement of trains and maintenance vehicles, could result in the spread of weeds in the study area, which could displace grasses on which livestock graze. Crops actively managed and cultivated in the study area would also be affected by the introduction of weeds.

Wayside noise and train horns during operations could result in avoidance responses from livestock in areas adjacent to the study area. OEA expects that noise-related effects on livestock would mostly occur within approximately 350 feet from the rail line for wayside train noise and 460 feet for horn noise. This is the distance at which noise levels would be at or above 100 dBA SEL, the noise level at which animals (domestic and wild) have been shown to exhibit a response to train noise (FRA 2005). In these locations, livestock may move away from trains as they pass through but would most likely move back in close to the tracks to graze once trains passed. Avoidance patterns by livestock would depend on the frequency of trains. Section 3.6, *Noise and Vibration,* provides more information on operations-related noise impacts.

Operation of the proposed rail line could also result in increased injury or mortality of livestock. Most areas of the rail line would not be fenced, unless required by the land management agency or landowner. In these areas of open range, livestock may move back and forth across the tracks while grazing, and some may lie down on the tracks, resulting in the potential for livestock being hit by trains. In stretches where the railway would run near major roadways, such as US 191, disturbance from passing trains could scare livestock onto roadways resulting in vehicles hitting the livestock. Livestock could congregate near tunnel entrances and enter into tunnels where they could be hit by trains. To minimize the potential impacts on livestock during operation, the Coalition has proposed voluntary mitigation (VM-46) to install safety fences and signs for grazing allotment entrances and exits to enable continuance of livestock operations within grazing allotments. OEA is recommending additional mitigation measures (LUR-MM-9, LUR-MM-10, LUR-MM-11) that would require the Coalition consult with appropriate land management agencies to develop measures to mitigate impacts on grazing allotments, construct barriers to tunnel entrances or design tunnel entrances to be raised above the ground level so that cattle cannot enter tunnels, and consider installing cattle underpasses along the right-of-way as appropriate and practical.

Recreation

This subsection discusses potential impacts on recreation that would be the same across the three Action Alternatives.

Construction

Road Access

Because access across the proposed rail line via roads could be temporarily impeded during construction, access to areas used for recreation on federal, state, and tribal lands could also be temporarily restricted or limited during construction.

Noise

Construction activities would generate noise that would be more noticeable in undeveloped areas, which generally have low levels of background noise. Recreationists such as hunters, hikers, campers, and anglers could hear noise generated by construction activities, which could diminish their enjoyment of recreational areas depending on the distance of the users from the railroad construction sites. This noise could also affect hunting and wildlife viewing because it could result in animals avoiding the study area. However, noise impacts associated with construction activities would be temporary. Section 3.6, *Noise and Vibration*, provides more information on construction-related noise impacts.

Visual Resources

Active construction and temporary staging areas near recreational resources could create visual distractions, including fugitive dust from land clearing, the presence of construction equipment, and glare from nighttime lighting used during construction. Construction of any of the Action Alternatives would create temporary changes in the view of and from recreational areas. Construction equipment, construction sites, staging areas, and associated facilities would introduce heavy industrial elements to a primarily rural landscape. Construction activities within the ~~construction~~ project footprint, including the earthwork required for construction, would create a visual disturbance for recreationists. These impacts would be most visible to recreationists adjacent to the area of the construction corridor. Section 3.12, *Visual Resources*, provides additional information on construction-related visual impacts. 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. Section 3.12, *Visual Resources*, provides conceptual renderings of impacts on scenic byways and backways resulting from the Action Alternatives.

Wildlife

Construction activities, including noise and the presence of humans, could alter the local distribution of wildlife and affect the experience of users engaging in recreational hunting or wildlife viewing in the study area. Impacts on hunters would depend on the timing of construction in relation to the hunting season. Because construction of all Action Alternatives would occur year-round, hunting could be affected for all game species.

Price River Recreation

Any of the Action Alternatives would connect two terminus points near Myton, Utah and Leland Bench, Utah to an existing rail line near Kyune. Construction activities at the Kyune terminus, including noise and the presence of construction equipment, could alter the recreational experience of boaters on the Price River. Impacts on recreationists would be greatest from April through June when river flows are at their peak and a higher number of boaters would be recreating on the river.

Impacts on recreationists on the Price River under any of the Action Alternatives would create temporary changes in the view and noise setting along the segment of the Price River near Kyune, where boaters access the river from Kyune Pass Road, immediately adjacent to the project footprints of the Action Alternatives.

As described in Subsection 3.4.3, *Biological Resources, Environmental Consequences*, construction of the proposed rail line could affect fish through in-stream construction activities, by altering habitat and water quality, and impeding fish movement. Bridge construction over the Price River could also injure fish from underwater noise associated with vessel movement and the installation of bridge supports. To minimize the risk of killing or injuring fish during in-stream construction work, OEA is recommending mitigation requiring the Coalition comply with any federal, state, or local in-water work windows and timing restrictions for the protection of fish species (BIO-MM-2). To minimize impacts on fish movement during construction, OEA is recommending mitigation requiring the Coalition use block-nets to remove and exclude fish from in-water work areas, to the extent practicable, and comply with reasonable federal, state, or local in-water work windows and timing restrictions for the protection of fish species, and other reasonable requirements of the in-water work permits (BIO-MM-2, BIO-MM-4). Implementation of these measures would also minimize or mitigate impacts on fishing opportunities on the Price River during construction.

Operations

Road Access and Crossings

The proposed rail line would create a barrier that would restrict access across the proposed rail line footprint. Because each public road crossed by the rail line footprint would require the installation of a crossing, access to areas used by recreationists by a public roadway would not be reduced. Figure 3.11-1 depicts the federal and state highways, county roads, Forest Service roads, and scenic byways in the vicinity of the recreation areas in the study area. Recreationists, however, would only be able to cross the rail line footprint at designated at-grade crossings. Access to some recreational resources could be delayed by train operations at the at-grade crossings or could require recreationists, who may be accustomed to using a variety of different routes to access certain portions of an area, to use only those with designated crossing points. This impact would be particularly pronounced to some OHV users on federal lands if the rail line footprint created a barrier to designated routes for OHV travel. Access to recreation and hunting areas on private land may also be affected where the proposed rail line could inhibit use of roads or trails used to access these areas. Section 3.1, *Vehicle Safety and Delay*, provides an analysis of impacts from grade crossings and delays for the Action Alternatives. OEA is recommending mitigation measures (LUR-MM-7, LUR-MM-8) requiring the Coalition consult with land management agencies and landowners to provide adequate access to recreation areas during construction and operations.

Noise

Operation of the proposed rail line would introduce a new source of noise in relatively undeveloped areas. Recreationists near the proposed rail line could be able to hear noise from trains and maintenance vehicles. Train horns would be a new, intermittent source of high-intensity noise at at-grade crossings, where safety regulations would require trains to sound their horns. Visitors would likely experience less recreational enjoyment due to the noise of trains, train horns, and maintenance vehicles; some recreationists could decide not to visit areas near the proposed rail line

at all. Wayside and train horn noise may also affect the quality of hunting experiences. Section 3.6, *Noise and Vibration*, provides more information on operations-related noise impacts.

Wildlife

OEA does not expect that the loss of habitat in the rail footprint would significantly affect fishing, hunting, or wildlife viewing because of the abundance of habitat in the study area. OEA anticipates that most wildlife would become used to, or habituate to, the noise of an operating train and maintenance equipment and would likely avoid the area for the short period that a train or equipment is present. However, the presence of the proposed rail line could affect wildlife movement patterns in some places, including within CWMUs. Game animals and other wildlife might avoid some areas where they are currently found. Section 3.4, *Biological Resources*, provides more information on operations-related impacts on wildlife.

Price River Recreation

While the existing rail line along the Price River corridor has already introduced noise and visual impacts on river recreationists, operation of the proposed rail line would result in an increased frequency of noise and visual impacts on recreationists accessing the Price River near Kyune, Utah. Recreationists would hear noise from trains and maintenance vehicles and see passing trains on a more frequent basis under any of the Action Alternatives. As a result, the recreational experience may be diminished, particularly for boaters accessing the Price River near Kyune Pass Road during peak flow periods (April through June).

As described in Subsection 3.4.3, *Biological Resources, Environmental Consequences*, the main impact from rail operations on fish would be related to culverts and bridges. OEA is recommending mitigation requiring the Coalition implement best management practices to ensure all culverts and bridges are sufficiently clear of debris to allow aquatic organisms to pass relatively unhindered, which would minimize impacts on fish movement (WAT-MM-10, BIO-MM-6). As a result, OEA does not expect operation of the proposed rail line to significantly affect fishing opportunities on the Price River.

3.11.3.2 Impact Comparison between Action Alternatives

Land Use

This subsection compares the potential environmental impacts on land use across the three Action Alternatives.

Construction and Operations

This subsection compares the potential environmental impacts on land use across the three Action Alternatives. Table 3.11-5 shows the acreage of public, private, and Tribal trust land that each Action Alternative would temporarily or permanently disturb, as well as the area of irrigated cropland, prime farmland, and the number of AUMs that would be lost under each Action Alternative.

Table 3.11-1. Land Use Impacts by Action Alternative

Action Alternative		Landownership (acres)[a]							Irrigated Cropland (Acres)	Prime Farmland (Acres)[c]	Loss of AUMs[d]
		BLM	SITLA	Tribal	UDOT	Forest Service	Private	Total[b]			
Indian Canyon	Temporary Disturbance	73	285	257	4	234	1,614	2,468	145	56	50
	Permanent Disturbance	46	158	121	<1	167	847	1,340	92	6	34
	Total	**119**	**444**	**379**	**5**	**401**	**2,461**	**3,808**	**237**	**62**	**84**
Wells Draw	Temporary Disturbance	3,246	554	0	1	0	1,293	5,095	35	15	176
	Permanent Disturbance	1,571	327	0	0	0	662	2,560	6	4	88
	Total	**4,817**	**881**	**0**	**1**	**0**	**1,955**	**7,655**	**41**	**19**	**264**
Whitmore Park	Temporary Disturbance	0	283	255	4	234	2,312	3,088	145	56	73
	Permanent Disturbance	0	103	118	0	167	1,042	1,431	92	6	37
	Total	**0**	**386**	**373**	**4**	**401**	**3,355**	**4,518**	**237**	**62**	**110**

Notes:

[a] All impacts are expressed in acreages of temporary and permanent disturbance, except for AUMs. An AUM is the amount of forage required by one animal unit for one month. Land disturbance estimates for each Action Alternative were divided by the average acre per AUM in each allotment to estimate AUM loss.

[b] Represents total impacts by landownership and excludes irrigated cropland and loss of AUMs values.

[c] Prime farmland, if irrigated. Acreages represent irrigated areas of this soil map unit. Nonirrigated areas do not meet prime farmland criteria.

[d] OEA first determined an average of 12 acres per AUM by dividing the total acreage of each allotment in the study area by their existing permitted AUMs. To estimate AUM loss, OEA then divided the acreage in each allotment that each Action Alternative would temporarily or permanently disturb by the average acres per AUM (12 acres per AUM).

Sources: Utah Department of Natural Resources 2018; USDA NRCS 2018

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

As the table shows, the Wells Draw Alternative would affect the most total land, followed by the Whitmore Park Alternative and then the Indian Canyon Action Alternative. The Wells Draw Alternative would also affect the most public land among the Action Alternatives, most of which would be BLM-administered land. To minimize impacts on public lands and resources, OEA is recommending mitigation (LUR-MM-3, LUR-MM-4, LUR-MM-5) requiring the Coalition adhere to the reasonable conditions imposed by public land management agencies in any right-of-way authorizations or permits and adhere to any applicable land use plans and other agency requirements.

The Whitmore Park Alternative would affect the most private land, followed by the Indian Canyon Alternative and then the Wells Draw Alternative. The Wells Draw Alternative would ~~also~~ have the largest impact on livestock production because it would cause the loss of the most AUMs, followed by the ~~Wells Draw~~Whitmore Park Alternative and then the Indian Canyon Alternative. The Indian Canyon Alternative and the Whitmore Park Alternative would affect the same area of irrigated cropland and prime farmland, while the Wells Draw Alternative would affect a much smaller area of irrigated cropland and prime farmland.

The Whitmore Park Alternative would require the greatest amount of private land acquisition (3,355 acres), followed by the Indian Canyon Alternative (2,461 acres) and Wells Draw Alternative (1,955 acres). 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 proposed 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 land use impacts of construction and operation 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. Section 3.13, *Socioeconomics*, provides more information on acquisitions and displacements within Argyle Canyon and the Duchesne Mini-Ranches.

The Indian Canyon Alternative and Whitmore Park Alternative would bisect four BLM grazing allotments and the Left Fork of Indian Canyon and Mill Hollow Forest Service Grazing allotments. The Wells Draw Alternative would not bisect the Left Fork of Indian Canyon and Mill Hollow Forest Service Grazing allotments but would cross 15 BLM grazing allotments. In addition to loss of AUMs, disruption of grazing patterns and livestock distribution would also occur. This is expected to be most evident during construction and would result in some areas of a pasture being grazed lightly while other areas could be over used by displaced livestock.

The Indian Canyon Alternative and Whitmore Park Alternative would also intersect the northwest edge of the Forest Service Indian Canyon Horse Pasture. Under both the Indian Canyon Alternative and Whitmore Park Alternative, approximately 8.4 acres of temporary disturbance and 8.6 acres of permanent disturbance would occur within the Indian Canyon Horse Pasture. The 8.6 acres of permanent disturbance under either action alternative would represent approximately 17 percent

of the 50.2-acre horse pasture. OEA is recommending mitigation measure (LUR-MM-4) requiring the Coalition adhere to the reasonable mitigation conditions imposed by the Forest Service in any special use permit allowing the Coalition to cross National Forest System Lands. Conditions may include avoiding or minimizing impacts on horse pastures to maintain adequate pasture size and replacing pasture fences removed during construction, as determined appropriate through consultation with the Forest Service.

The Wells Draw Alternative would cross designated mineral material sites and special tar sand areas on BLM-administered land and mineral estate. Construction of the proposed rail line could affect operations of the mineral material sites if construction activities result in temporary closures of roads used to access the sites or if the project footprint restricts opportunities for stone collection. OEA is recommending mitigation requiring the Coalition adhere to the reasonable mitigation conditions imposed by BLM in any right-of-way granted by BLM, which may include measures to minimize the project footprint in these locations and maintain access to mineral material sites (LUR-MM-3). The Wells Draw Alternative would also cross through several special tar sand areas, including Argyle Canyon, Sunnyside, and Pariette, identified for future commercial tar sand leasing in the 2013 *Programmatic EIS for Oil Shale and Tar Sands* (BLM 2013). Construction of the proposed rail line could affect access to these special tar sand areas and limit the land that could be used to lease and develop tar sands in the future. Based on agency consultation, OEA understands these areas are not currently being leased and that any future leasing actions for tar sands would require additional site-specific NEPA review in accordance with the programmatic EIS. With implementation of OEA's recommended mitigation, OEA concludes that the Wells Draw Alternative would not result in significant impacts on mineral material sites or tar sands leasing and development.

During scoping, several commenters expressed concerns about the impact of the Action Alternatives on ranching and farming operations. 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). 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). Section 3.13, *Socioeconomics*, Figure 3.13-4, Figure 3.13-5, and Figure 3.13-6 show the location of the rail line footprint and the temporary footprint relative to each identified ranch and farming operation.

Land and temporary construction easements acquired for construction of the proposed rail line would no longer be available for ranching, farming, or other existing land uses. 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 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 (Section 3.13, *Socioeconomics,* 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 temporary construction easement (or 50.2 percent of the ranch) for the Indian Canyon Alternative or Whitmore Park Alternative and 25.0 acres of land and temporary construction easement (or 83.2 percent of the ranch) for the Wells Draw Alternative.

All of the Action Alternatives would cross Jensen Ranch, but the Coalition would acquire substantially more land and area for 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 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 (Section 3.13, *Socioeconomics,* Figure 3.13-4).

Inventoried Roadless Areas

If the Board were to approve the Indian Canyon Alternative or the Whitmore Park Alternative, construction of the proposed rail line could alter values and characteristics on 394 acres of IRA~~s~~ #0401011 within Ashley National Forest (Figure 3.11-1). Disturbances within IRAs would be limited to vegetation removal, cut and fill, and grading activities within the project footprint. Nonrecreation special uses, including railroads, may be authorized in IRAs if the use can be accommodated without road access and the use and occupancy is consistent with the management objectives for the IRA values (Forest Service 2000). Construction of new temporary access roads within IRAs under any of the Action Alternatives would be incompatible with the 2001 Roadless Rule (36 C.F.R. Part 294). For either the Indian Canyon Alternative or the Whitmore Park Alternative, the Coalition would seek Forest Service approval for the rail line right-of-way, which would include review by the Regional Forester to ensure consistency of the proposed rail line with the 2001 Roadless Rule (LUR-MM-4). Unlike the Indian Canyon Alternative and Whitmore Park Alternative, the Wells Draw Alternative would not cross Forest Service lands in Ashley National Forest, and it would not result in construction or operation disturbances to IRAs.

Following the release of the Draft EIS, the Forest Service prepared the *Uintah Railroad Inventoried Roadless Area Report*, which analyzes the impacts from the proposed rail line on IRA #0401011 (Forest Service 2021). The Forest Service evaluated the potential effects on the IRA based on 14 resource indicators and measures identified in the 2001 Roadless Area Conservation Rule (36 C.F.R. Section 294.11) and the Roadless Area Resource Evaluation of 1979 (Forest Service 1979). Table 3.11-6 describes the effects from the proposed rail line on IRA #0401011 by resource indicator and measure, as presented in the Forest Service's report. As shown in Table 3.11-6, construction and operation of either the Indian Canyon Alternative or Whitmore Park Alternative would have an adverse impact on roadless area characteristics. However, the Forest Service concluded that, due to the size of the IRA and the location of the proposed rail line adjacent to the western boundary of the IRA, the IRA conditions would remain stable during construction and operation of the proposed rail line. The *Uintah Railroad Inventoried Roadless Area Report* contains additional information relating to the effects of the construction and operation of the proposed rail line on IRA #0401011 (Forest Service 2021).

Table 3.11-2. Impacts on Inventoried Roadless Area #0401011 under the Indian Canyon Alternative and Whitmore Park Alternative

Resource Element	Indicator/Measure	Effects under the Indian Canyon and Whitmore Park Alternatives
Natural Iintegrity	Long-term ecological processes of area intact and operating	Natural Integrity would be affected by construction of the railroad along the proposed rail line in the Left Fork of Indian Canyon. The natural integrity would remain stable in most of the IRA.
Apparent Nnaturalness	Area appears natural to casual observer	The proposed rail line would disturb the IRA and alter the apparent naturalness in the Left Fork of Indian Canyon. The existing apparent naturalness would remain the same in most of the IRA.
Remoteness or Ssolitude	Level of remoteness or solitude	Sense of remoteness and solitude would be reduced in the Left Fork of Indian Canyon by construction and operation of the proposed rail line. The level of remoteness and solitude in most of the IRA would remain the same.
Opportunities for Primitive Rrecreation	Level of primitive recreation	Opportunities for primitive recreation would be reduced in the Left Fork of Indian Canyon due to the construction and operation of the proposed rail line but would remain the same in most of the IRA.
Special features	Ecological, Geologic, Scenic, or Historical values	There are no special features in the area.
Manageability	Ability to meet size criteria (5,000 acres plus) and the wilderness potential	There are multiple Forest Service System Roads cherry stemmed through the IRA and five oil and gas well pads in the area. The presence of the proposed rail line would have a small effect on the manageability of the area because it is adjacent to the western boundary.
Soil, Wwater, and Aair Rresources	Watershed resources	Four drainages that the IRA spans are considered functioning at risk. The proposed rail line would influence the soil, air, and water resources within the Left Fork of Indian Canyon, but would not have an effect on the remainder of the IRA.
Sources of public drinking water	Public water source	Proposed rail line would not be located in a municipal watershed.
Diversity of plant and animal communities	Support of diverse plant and animal communities	Diversity of plant and animal communities would remain stable and typical for high to mid elevation plateau/escarpment habitat throughout most of the IRA. The diversity of plant and animal communities in the Left Fork of Indian Canyon would be affected by the proposed rail line.
Habitat for threatened and endangered species and species dependent on large	Habitat for threatened and endangered species and other species	Marginal habit for wolverine and a small amount of habitat for lynx are present. There is also habitat for black bear, moose, mule deer, pronghorn, Rocky Mountain bighorn sheep, and elk. The construction and operation of the proposed rail line would affect the habitat within

Resource Element	Indicator/Measure	Effects under the Indian Canyon and Whitmore Park Alternatives
undisturbed areas of land		the Left Fork Indian Canyon for the above species. The habitat would remain the same in most of the IRA.
Primitive and semi-primitive classes of recreation	Presence of primitive and semi-primitive classes of recreation	The proposed rail line would not decrease the semi-primitive recreation classes.
Reference ~~l~~landscapes	Presence of reference landscapes	The area is not considered a reference landscape.
Natural appearing landscapes with high scenic quality	Presence of high-quality scenery	Scenic quality of the majority of the area is high to moderate and low in some locations within the IRA due to past and current human activities. The scenic quality of the Left Fork of Indian Canyon would be reduced due to the construction and operation of the proposed railroad, but would remain stable within most of the IRA.
Traditional cultural properties and sacred sites	Presence of cultural properties and sacred sites	Surveys have provided evidence of prehistoric activity, but no sites have been found.

Notes:
Information in this table was derived from Table 4 in the *Uintah Railroad Inventoried Roadless Area Report* (Forest Service 2021). OEA has made minor modifications to the text of the table for consistency with the terminology and presentation format used in this EIS.
Source: Forest Service 2021.
IRA = inventoried roadless area; Forest Service = U.S. Forest Service

BLM Resource Management Plans

As discussed in Chapter 2, *Proposed Action and Alternatives*, both the Indian Canyon Alternative and Wells Draw Alternative would cross public lands administered by the BLM Price, Salt Lake and Vernal field offices and would affect land use on those BLM-administered lands. As currently proposed, construction and operation of the proposed rail line would likely not be in compliance with existing BLM RMPs. Therefore, if the Board were to approve one of those two Action Alternatives, BLM would likely have to amend the existing RMPs to grant a permit across BLM-administered lands. Unlike the Indian Canyon Alternative and Wells Draw Alternative, the Whitmore Park Alternative would not cross BLM-administered lands. Therefore, construction and operation of the Whitmore Park Alternative would not result in direct disturbances to existing land uses on BLM-administered lands.

Construction of the Wells Draw Alternative may require a plan amendment if the proposed rail line is constructed within the Lears Canyon ACEC established in the Approved Vernal Field Office RMP (BLM 2008b). Additional discussion of potential impacts on this ACEC follows in the *BLM Special Designations* section below. Construction and operation of the proposed rail line under the Indian Canyon Alternative and Wells Draw Alternative would need to comply with the BLM *Utah Greater Sage-Grouse Approved Resource Management Plan Amendment* (ARMPA). BLM would need to amend its Price RMP and Pony Express RMP should the Board license the Indian Canyon Alternative or the Wells Draw Alternative in order to permit the proposed rail line (Section 3.4, *Biological Resources,* provides additional information on compliance with the BLM Utah Greater Sage-Grouse ARMPA).

OEA is recommending mitigation (LUR-MM-3) requiring the Coalition adhere to the mitigation conditions imposed by BLM in any right-of-way granted by BLM allowing the Coalition to cross BLM-administered lands and ensure that construction and operation of the rail line is in compliance with applicable RMPs, including any potential amendments to those plans.

BLM Special Designations

If the Board were to approve the Wells Draw Alternative, construction and operation of the proposed rail line would occur within approximately 104 acres of the Lears Canyon ACEC and approximately 64 acres of the Nine Mile Canyon ACEC (Figure 3.11-1). Both ACECs are within the BLM Vernal Field Office and are given special management attention as identified in the Vernal Field Office RMP, to protect and prevent irreparable damage to important resource values. Relict plant communities[2] meet relevance and importance criteria as described in 43 C.F.R. Section 1610.7.2 within the 1,375-acre Lears Canyon ACEC (BLM 2008b). Relevance and importance values for the Nine Mile Canyon ACEC include nationally significant Fremont, Ute, and Archaic rock art and structures, high-quality scenery, and special status plant habitat. The Nine Mile Canyon ACEC totals 44,168 acres.

The Vernal Field Office RMP protects the Lears Canyon ACEC through Visual Resource Management (VRM) Class II objectives and a closure to OHV use (BLM 2008b). These protections were identified to protect the relict plant community relevance and importance values for which it was designated. As described in Section 3.12, *Visual Resources*, the proposed rail line would not conform to the VRM Class II objectives because it would not reflect the characteristics of the existing visual environment and would attract viewers' attention. Construction of the proposed rail line would also require temporary and permanent roads in the project footprint that would not conform to the closure to OHV use. Because the Wells Draw Alternative would not conform to the Vernal Field Office RMP, BLM would need to amend the RMP to issue a right-of-way grant through the Lears Canyon ACEC.

Construction of the Wells Draw Alternative has the potential to affect special status plant habitat, a relevance and importance value for the Nine Mile Canyon ACEC. Section 3.4, *Biological Resources*, describes the potential impacts on BLM sensitive plant communities from construction of the proposed rail line, which would include removal of habitat and loss of individual plants if they are located in the project footprint. While these impacts on BLM-listed sensitive species could diminish the ACEC's values for providing habitat for sensitive plant species, the geographic extent of the impacts would be small relative to the overall size of the ACEC. The Wells Draw Alternative would pass along the ~~northeastern~~ northern edge of the ACEC boundary and would affect only 0.1 percent of the ACEC. Because the proposed rail line would affect only a small portion of the ACEC and would not bisect contiguous habitat in the ACEC, OEA anticipates the relevance and importance values would be retained.

The Wells Draw Alternative would cross the Nine Mile Canyon ACEC in VRM Classes III and IV. As described in Section 3.12, *Visual Resources*, while the proposed rail line would attract viewers' attention, the area crossed by the rail line would partially retain the characteristics of the existing visual environment and would, therefore, conform to VRM Class III and IV objectives. Because the Wells Draw Alternative would be in conformance with the VRM objectives of the ACEC, OEA anticipates the relevance and importance value of scenery would be retained.

[2] Relict plant communities are a remnant or fragment of the vegetation of an area that remains from a former period when the vegetation was more widely distributed.

Construction of the Wells Draw Alternative has the potential to affect rock art and structures, a relevance and importance value for the Nine Mile Canyon ACEC. Through the Programmatic Agreement, the Board and other consulting parties are identifying methods to identify and mitigate for impacts on rock art. To ensure that any adverse effects on rock art are appropriately avoided, minimized, or mitigated, the Coalition has proposed voluntary mitigation (VM-43) to comply with the terms of the Programmatic Agreement ~~being~~ developed through Section 106 consultation and which the Coalition has signed as an invited signatory. With implementation of the Programmatic Agreement, the relevance and importance value of rock art for which the Nine Mile Canyon ACECs was designated would remain following construction of the Wells Draw Alternative.

BLM Rights-of-Way

The Indian Canyon Alternative and Wells Draw Alternative would cross BLM-administered lands and could affect existing rights-of-way on those lands. OEA consulted with BLM and identified 49 existing rights-of-way on BLM-administered lands in the vicinity of the proposed rail line (BLM 2020d). These rights-of-way include the right-of-way for the Questar natural gas pipeline, which the Wells Draw Alternative would cross on BLM-administered land. If the Board were to authorize the Indian Canyon Alternative or Wells Draw Alternative, the Coalition would need to obtain a right-of-way from BLM and abide by the measures imposed by BLM as a condition of the right-of-way, including conditions related to existing rights-of-way (LUR-MM-3). The Coalition has proposed voluntary mitigation (VM-47) to secure agreements with utilities to establish responsibility for protecting or relocating existing utilities, if impacted by construction. Additionally, as discussed in Section 3.8, *Energy*, OEA is also recommending mitigation requiring the Coalition design any crossings or relocations of utilities in accordance with applicable regulations and consult with appropriate utility providers to coordinate construction activities (ENGY-MM-3). If the Coalition's voluntary mitigation measures and OEA's recommended mitigation measures are implemented, OEA does not expect that impacts on existing BLM rights-of-way would be significant.

Uintah and Ouray Reservation and Indian Trust Assets

As Table 3.11-5 shows, the Indian Canyon Alternative and the Whitmore Park Alternative would each affect Tribal trust lands, which are ITAs within the Ute Indian Tribe's Uintah and Ouray Reservation. The Indian Canyon Alternative would permanently displace 121 acres and could temporarily affect 257 acres of Tribal trust land, while the Whitmore Park Alternative would permanently displace 118 acres and could temporarily affect 255 acres. Based on consultation with the Ute Indian Tribe and BIA, OEA understands that the main land use on Tribal trust lands that would fall within the project footprint is oil and gas development. Aside from Tribal trust lands, no ITAs were identified in the study area that would be affected by any of the Action Alternatives. OEA is recommending mitigation measures (LUR-MM-1, LUR-MM-2, LUR-MM-6) requiring the Coalition consult with the Ute Indian Tribe during the final engineering and design phase of the proposed rail line, implement reasonable mitigation measures imposed by the Ute Indian Tribe, and implement the reasonable terms and conditions imposed by BIA in any decision granting a right-of-way on Tribal trust lands.

Conservation Easements

The Indian Canyon Alternative and the Whitmore Park Alternative would cross the Indian Canyon Conservation Easement held by UDWR in Sections 14, 15 and 22, Township 4 South, Range 5 West, Duchesne County. Construction of the proposed rail line, an access road, and a communications

tower under the Indian Canyon Alternative and the Whitmore Park Alternative would temporarily disturb approximately 52 acres within the conservation easement. Permanent disturbance within the Indian Canyon Conservation Easement would total approximately 35 acres under both the Indian Canyon Alternative and the Whitmore Park Alternative. The 35 acres of permanent disturbance under either alternative would represent approximately 3.5 percent of the total 1,000 acres held in the Indian Canyon Conservation Easement. OEA is recommending mitigation (LUR-MM-12) requiring the Coalition coordinate with landowners and holders of conservation easements crossed by the proposed rail line to develop appropriate measures to mitigate the impacts of construction and operation of the proposed rail line on affected conservations easements.

Recreation

This subsection compares the potential environmental impacts on recreation across the three Action Alternatives.

Construction and Operations

Cooperating Wildlife Management Units

All of the Action Alternatives would create temporary and permanent disturbances to CWMUs, resulting in adverse impacts on hunting opportunities (Figure 3.11-1). Table 3.11-~~6~~7 compares the temporary and permanent disturbances to CWMUs by Action Alternative. As the table shows, the Whitmore Park Alternative would result in the most disturbances to CWMUs, followed by the ~~Wells Draw~~Indian Canyon Alternative and then the ~~Indian Canyon~~Wells Draw Alternative.

Table 3.11-~~6~~7. Temporary and Permanent Disturbances to Cooperative Wildlife Management Units by Action Alternative

Action Alternative	CWMUs	Acres of Temporary Disturbance[a]	Acres of Permanent Disturbance[b]	Total Disturbance
Indian Canyon	Antelope Creek/581	326	165	491
	Cottonwood Ridge/824	7	7	14
	Emma Park/538	82	76	157
	Indian Head/735	91	62	153
	Total	**506**	**310**	**816**
Wells Draw	Antelope Creek/581	113	43	156
	Emma Park/538	82	76	157
	Indian Head/735	91	62	153
	Total	**286**	**181**	**466**
Whitmore Park	Antelope Creek/581	334	168	503
	Emma Park/538	132	45	177
	Indian Head/735	224	117	341
	Minnie Maud Ridge/551	317	135	452
	Total	**1,006**	**466**	**1,472**

Notes:

[a] ~~Construction~~ Temporary footprint.

[b] Rail Line footprint.

Source: UDWR 2020

CWMU = Cooperative Wildlife Management Unit

Ashley National Forest Recreational Areas

The Indian Canyon Alternative and the Whitmore Park Alternative would cross a portion of Ashley National Forest near the trailheads of the Right Fork Indian Canyon Trail, Grass Hollow Trail, and Mill Hollow Trail (Figure 3.11-1). Recreationalists using those trails could be disturbed by noise during construction activities and by train noise during operations. The rail line could also be visible from some portions of those trails, which could create visual distractions. These impacts would be greatest for users of the Mill Hollow Trail because its trailhead is located immediately adjacent to the Indian Canyon Alternative and Whitmore Park Alternative project footprints at Mill Hollow and US 191. An at-grade crossing of the unnamed Forest Service road providing access to the Mill Hollow Trail trailhead would also be required for the Indian Canyon Alternative and Whitmore Park Alternative, resulting in potential access delays and intermittent disturbances from train horn noise for recreationalists during operation.

Because the Indian Canyon Alternative and the Whitmore Park Alternative would be located approximately 2.4 miles away from the Avintaquin Campground (Figure 3.11-1), OEA does not believe construction and operation of either of these alternatives would affect recreationists at the campground. The Wells Draw Alternative would not cross Ashley National Forest and would, therefore, not affect recreational opportunities in the forest.

Bureau of Land Management Recreational Areas

The Wells Draw Alternative would temporarily disturb 3,197 acres of ERMAs and would permanently displace 1,556 acres of BLM ERMAs. The Indian Canyon Alternative would temporarily disturb 73 acres of BLM ERMAs and would permanently displace 46 acres of ERMAs. During construction, recreationists would not be able to access temporarily disturbed ERMAs on BLM-administered land for camping, hiking, horseback riding, hunting, fishing, mountain biking, rock climbing, wilderness backpacking, wildlife viewing, nature photography, or other activities. The displacement of EMRAs within the rail line footprint would lead to the permanent loss of recreational opportunities on those lands. The Whitmore Park Alternative would not cross BLM-administered land and would, therefore, not affect ERMAs.

The Wells Draw Alternative would also cross several special designation areas on BLM-administered lands (Figure 3.11-1). Table 3.11-~~7~~8 lists the BLM special designation areas that the Wells Draw Alternative would affect. Construction impacts on relevant and important ACEC values would occur for the areas of the Wells Draw Alternative requiring vegetation removal, overland travel, cut and fill, or grading in these areas. Construction of the Wells Draw Alternative would bisect the Big Wash and Currant Canyon areas managed as Lands with Wilderness Characteristics and could result in portions of these areas no longer meeting the size requirements to be managed as Lands with Wilderness Characteristics. During construction, noise and activity in an SRMA would temporarily adversely affect recreational activity for which the SRMA is managed. This would primarily affect recreationists engaged in hiking, backpacking, and rock art viewing. The Indian Canyon Alternative and the Whitmore Park Alternative would not cross BLM special designation areas. During operation, recreationists in special designation areas near the proposed rail line would be able to hear noise from trains and maintenance vehicles. Wayside and train horn noise would likely reduce recreational enjoyment within portions of the Big Wash and Currant Canyon areas managed as Lands with Wilderness Characteristics, and within a small portion of the Nine Mile SRMA.

Table 3.11-~~7~~8. BLM Special Designation Areas Affected by the Wells Draw Alternative

Special Designation	Name	Temporary Disturbance[a] (acres)	Permanent Disturbance[b] (acres)	Total Disturbance (acres)
ACEC	Lears Canyon	68	36	104
	Nine Mile Canyon	49	15	64
Lands with Wilderness Characteristics	Big Wash	307	147	454
	Currant Canyon	998	462	1,460
SRMA	Nine Mile SRMA	49	15	64
Total		**1,471**	**675**	**2,146**

Notes:

[a] ~~Construction~~ Temporary footprint.

[b] Rail line footprint.

Source: BLM 2008b

ACEC = Areas of Critical Environmental Concern; SRMA = Special Recreation Management Area

3.11.3.3 No-Action Alternative

Under the No-Action Alternative, the proposed rail line would not be constructed and operated, and land would not be permanently converted to railroad use. Current land uses and recreational opportunities and experiences would not be affected and would continue as is.

3.11.4 Mitigation and Unavoidable Environmental Effects

Any of the Action Alternatives would result in temporary and permanent changes to existing land use and would adversely affect recreational opportunities in the study area. Each of the Action Alternatives would affect public land, but the affected land management agencies would vary by alternative. The Coalition has proposed voluntary mitigation measures and OEA is recommending additional mitigation measures to avoid or minimize impacts on land use and recreation (Chapter 4, *Mitigation*). Even if those mitigation measure are imposed; however, construction and operation of the proposed rail line would result in unavoidable consequences on land use and recreation, including the permanent loss of irrigated cropland and grazing land, the severance of properties, and visual and noise disruption of recreational activities on public and private lands. OEA concludes that these unavoidable impacts on land use and recreation would be locally significant because each of the Action Alternatives would permanently alter existing land use and the availability and quality of recreational activities in the study area, including special designation areas on public lands.