

Appendix H

Biological Evaluation

Biological Evaluation

for the

Uinta Basin Railway Project

Ashley National Forest
Roosevelt/Duchesne Ranger District
October 2020

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INTRODUCTION

The purpose of this Biological Evaluation is to identify the likely effects of the Seven County Infrastructure Coalition (Coalition) Uinta Basin Railway Project (the Project) would have on United States Department of Agriculture Forest Service (Forest Service) Region 4 Sensitive species for portions of the Project that would cross Ashley National Forest (ANF).

This document addresses those species that:

1. Are known to occur on the Roosevelt/Duchesne Ranger District (RD) based on confirmed sightings.
2. May occur on the Roosevelt/Duchesne RD based on geographic range.
3. For which there exists suitable habitat on the Roosevelt/Duchesne RD.

ANF has adopted the list of Sensitive species from the Forest Service Regional Forester Sensitive Species List.

PROPOSED ACTION

On May 29, 2020, the Coalition filed a petition with the Surface Transportation Board (Board) pursuant to 49 United States Code (U.S.C.) § 10901 in Docket No. FD 36284. The petition requests Board authority to construct and operate a new line of railroad in Carbon, Duchesne, Uintah, and Utah Counties, Utah. The Coalition is a political subdivision of the State of Utah established under an interlocal agreement by the Utah counties of Carbon, Daggett, Duchesne, Emery, San Juan, Sevier, and Uintah. The Project would provide a new rail connection between the Uinta Basin (Basin) in northeastern Utah and the interstate freight rail network. It would extend approximately 85 miles from terminus points in the Basin near Myton, Utah and Leland Bench, Utah to an existing Union Pacific (UP) rail line near Kyune, Utah.

The Coalition anticipates that rail traffic on the proposed rail line would primarily consist of trains transporting crude oil from the Basin to markets across the United States. The Coalition also expects that trains would transport frac sand into the Basin for use in the oil and gas extraction industry. The total volume of rail traffic would depend on future markets for crude oil, which is driven by global demand and capacity at oil refineries. Depending on those future market conditions, the Coalition estimates that as few as 3.68 or as many as 10.52 trains could operate on the proposed rail line each day, on average. That estimate includes between 3.68 and 9.92 crude oil trains, including both unloaded trains entering the Basin and loaded trains leaving the Basin, and between 0 and 0.6 frac sand trains, including both loaded trains entering the Basin and unloaded trains leaving the Basin. The Coalition expects that the majority of crude oil transported on the proposed rail line would originate from new extraction projects in the Uinta Basin or increased production at existing oil wells. The Coalition does not expect that the proposed rail line would divert existing oil truck traffic to rail transportation for the purposes of serving existing oil refineries in Salt Lake City in the short term.

The Coalition expects that shippers could also use the proposed rail line to transport various heavy and bulk commodities found in the Basin, such as soda ash, phosphate, natural gas, oil shale, gilsonite, natural asphalt, limestone, bentonite, heavy clay, aggregate materials, bauxite,

low-sulfur coal, and agricultural products. These products would be transported in cars added to crude oil trains or frac sand trains. The Coalition does not anticipate that the volume of other commodities would be large enough to warrant dedicated trains.

The Coalition anticipates that shippers of crude oil or other third parties would construct terminals at the two terminus points of the proposed rail line near Myton, Utah and Leland Bench, Utah to facilitate the transportation of crude oil. The Coalition is not proposing to construct terminals at the two terminus points as part of its petition filed with the Board, and the Board would not have a role in permitting those facilities if another nonrail party were to construct them.

PROJECT ALTERNATIVES

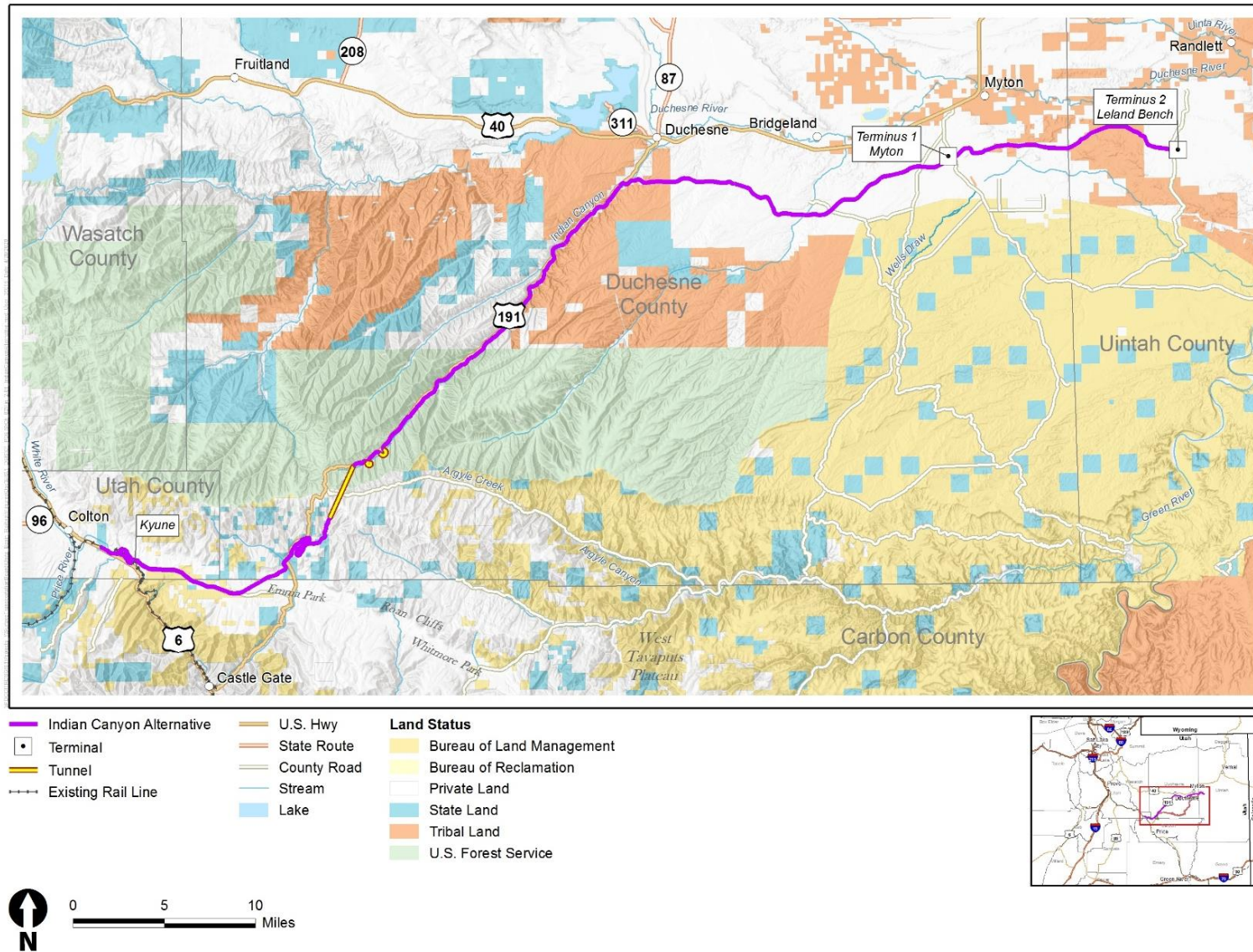
The Board's Office of Environmental Analysis (OEA) prepared an Environmental Impact Statement (EIS) that analyzed three Action Alternatives: the Indian Canyon Alternative, Wells Draw Alternative, and Whitmore Park Alternative (the Coalition's preferred alternative). Only the Indian Canyon Alternative and Whitmore Park Alternative would pass through ANF. Within ANF, the Indian Canyon Alternative and Whitmore Park Alternative are in the exact same footprint, and would cross approximately 12 miles of ANF in Indian Canyon. The following sections summarize the Indian Canyon Alternative and Whitmore Park Alternative.

Indian Canyon Alternative

The Indian Canyon Alternative would extend approximately 80 miles from two terminus points in the Basin near Myton and Leland Bench to a connection with an existing UP rail line near Kyune (Figure 1). Starting at Leland Bench, approximately 9.5 miles south of Fort Duchesne, Utah, the route would proceed westward, past the South Myton Bench area, until intersecting Indian Canyon approximately 2 miles south of Duchesne, Utah. After entering Indian Canyon, the route would turn southwest and follow Indian Creek upstream toward its headwaters below Indian Creek Pass, paralleling U.S. Highway 191 (US 191) for approximately 21 miles. The Indian Canyon Alternative would use a summit tunnel to pass through the West Tavaputs Plateau near Indian Creek Pass on US 191. After emerging from the tunnel, it would descend the Roan Cliffs to reach Emma Park, an open grassy area at the base of the Roan Cliffs. The route would then run westward through Emma Park where it would split into a westbound and eastbound wye¹ configuration that would connect to the UP Provo Subdivision near the railroad timetable station at Kyune. In addition to the summit tunnel, the Indian Canyon Alternative would include two additional tunnels.

¹ The term *wye* refers to the Y-like formation that is created at the point where train tracks branch off the mainline to continue in different directions.

Figure 1. Indian Canyon Alternative

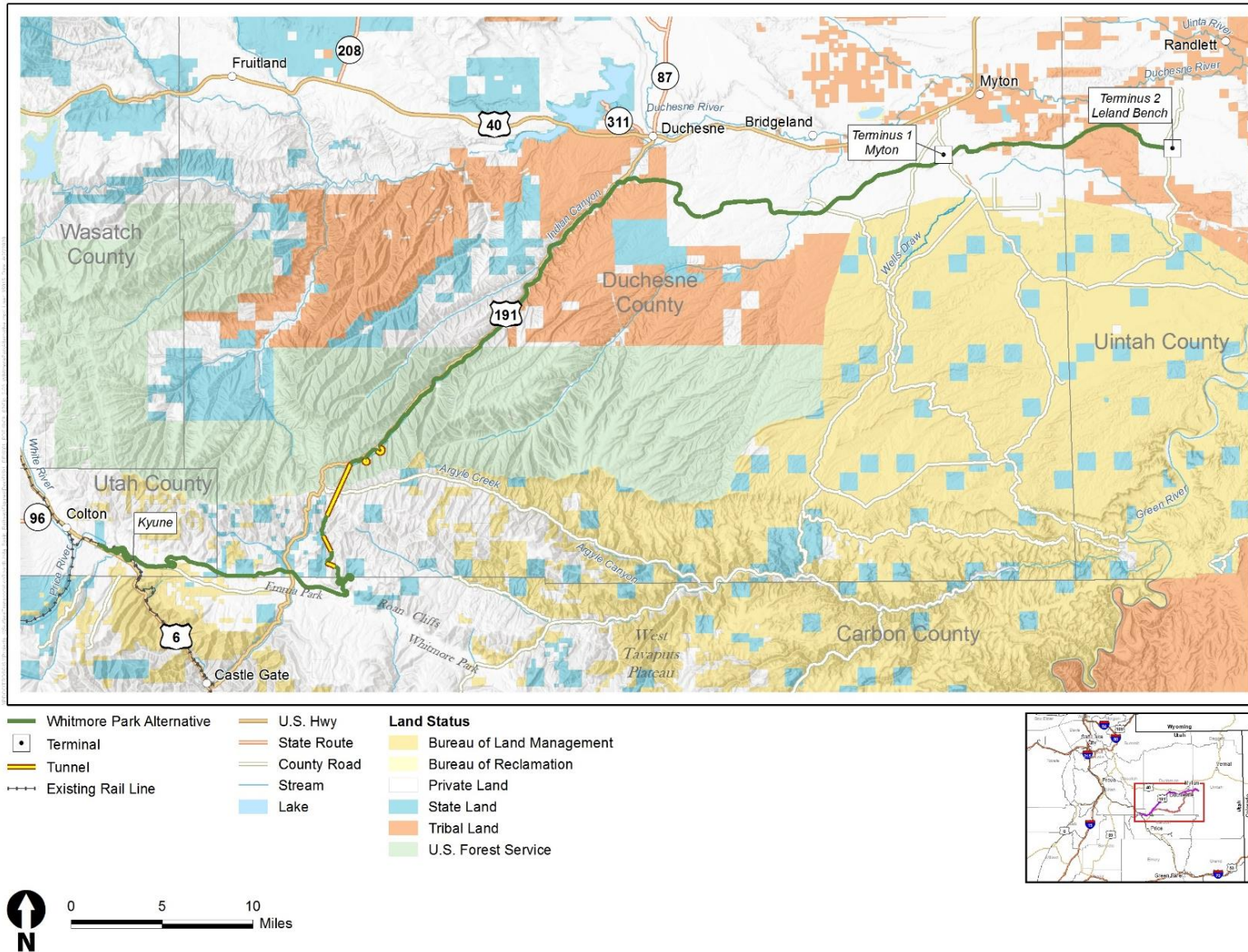


Whitmore Park Alternative (Preferred Alternative)

The Whitmore Park Alternative would extend approximately 88 miles from terminus points in the Basin near Myton and Leland Bench to an existing UP rail line near Kyune (Figure 2). This alternative would overlap for much of its length with the Indian Canyon Alternative.

Approximately 23 miles west of the terminus point near Leland Bench, the Whitmore Park Alternative would diverge from the Indian Canyon Alternative, heading south to avoid the residential Mini Ranches area near Duchesne, Utah. It would then continue west to Indian Canyon and turn southwest to follow Indian Creek, paralleling US 191. Like the Indian Canyon Alternative, the Whitmore Park Alternative would use a summit tunnel to pass through the West Tavaputs Plateau near Indian Creek Pass on US 191. After emerging from the tunnel, the Whitmore Park Alternative would again diverge from the Indian Canyon Alternative to head south and southeast on its descent from the Roan Cliffs. After reaching Emma Park, it would follow Whitmore Park Road westward, cross US 191, and continue west along Quarry Road and Emma Park Road where it would split into a westbound and eastbound wye configuration that would connect to the UP Provo Subdivision near Kyune. In addition to the summit tunnel, the Whitmore Park Alternative would include four additional tunnels.

Figure 2. Whitmore Park Alternative



PROJECT CONSTRUCTION AND DESIGN FEATURES

This section briefly describes the Coalition's plans for constructing the Project, including information pertaining to the rail line, temporary, and project footprints; railbed and track construction; materials for rail line construction; construction staging areas; staffing and worker housing; bridges, culverts, and other surface water crossings; grade crossings; road relocations; and facilities that the Coalition would construct as part of the Project.

Rail Line, Temporary, and Project Footprints

OEA has defined the following terms to describe the areas where construction and operation of the Project would occur.

- **Rail line footprint.** 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.
- **Temporary footprint.** 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.
- **Project footprint.** 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.

The width of the rail line footprint would vary depending on site-specific conditions, such as topography, soil slope stability, and other geotechnical conditions. Table 1 provides the length and area of the rail line, temporary, and project footprints for the Indian Canyon Alternative and Whitmore Park Alternative in ANF.

Table 1. Indian Canyon Alternative and Whitmore Park Alternative Length and Footprints in ANF

Action Alternative	Length (miles)	Rail Line Footprint (acres)	Temporary Footprint (acres)	Project Footprint (acres)
Indian Canyon	12	167	234	401
Whitmore Park	12	167	234	401

The Indian Canyon Alternative and Whitmore Park Alternative would require constructing temporary and permanent access roads. The Coalition would construct temporary access roads that would provide access to the rail embankment, tunnel portals, and bridge and drainage structure locations during construction. The Coalition would also construct several permanent access roads to provide access to rail sidings and long tunnels during rail operations. OEA expects that temporary and permanent access roads would be 13 feet wide, on average, and would connect to the nearest existing roadways to minimize the length of the access roads.

Railbed and Track Construction

The width of the railbed would extend approximately 10 to 20 feet from the centerline to the edge of the subballast. This distance would vary in cut-and-fill locations where ditches could be required. The Coalition would construct the track on top of approximately 12 inches of subballast material and 8 inches of ballast. Timber, steel, or concrete ties would support the continuously welded steel rail. The Coalition could use hot-mix asphalt under the ties if the final design indicates that this is practical. OEA expects that the Coalition would design the track to accommodate loading requirements and to support a gross weight of 315,000 pounds per rail car and 432,000 pounds per locomotive.²

Project Construction Equipment and Methods

Construction of the Project would involve a variety of construction methods and equipment. Bull dozers, front-end loaders, and dump trucks would be used to create the appropriate corridor and grade. Cranes may be needed to construct bridges over roads and surface waters. Mining and potentially blasting methods would be used to construct tunnels. Rail track would be laid and welded by a track-welding machine or crews where necessary.

Materials for Rail Line Construction

The Coalition would use existing, permanent quarries located in Carbon, Duchesne, Uintah, and Utah Counties to obtain and stockpile aggregate and rock materials. Trucks would deliver the materials to the rail line using existing roadways and temporary and permanent access roads. The Coalition anticipates obtaining concrete aggregate and subballast material from existing UDOT-certified quarries and ballast material from an existing rail-served quarry near Milford, Utah. If that source of ballast material were unavailable, the Coalition would obtain ballast material from existing rail-served quarries near Granite Canyon, Wyoming, and Carr, Colorado. The Coalition does not anticipate needing or developing new quarry sources. If the Coalition were to identify the need for additional sources during the final design phase of the Project, the Coalition would develop those sources in conformance with applicable local and state land use and permitting regulations and applicable Utah Department of Transportation specifications.

The Coalition intends to balance cut-and-fill material so that fill and spoil sites would not be required. During construction, subballast would be transported via truck, and ballast would be delivered by rail directly to its final location. Staging for subballast and ballast material would occur at the quarries from which those materials were obtained. The Coalition intends to obtain water for compaction, dust control, and concrete work from existing water right holders and would not pursue any new water rights. The Coalition would identify the specific existing water rights for construction during the final design phase based on discussions with current water right holders, timing of construction activities and seasonal availability, location of the water right point of diversion, and the type of water right diversion (e.g., well, surface water). The sources

² The estimated maximum weight of locomotives used by the proposed rail line would range from approximately 380,000 to 432,000 pounds. The typical weight of loaded crude oil rail cars operating over the proposed rail line is expected to be 143 tons, or 286,000 pounds, per car.

for water used during construction may include groundwater, surface water, potable water, or reclaimed and treated wastewater.

Construction Staging Areas

During construction of the Project, the Coalition intends to locate all temporary staging areas within the project footprint or in existing permanent industrial sites permitted for construction uses. To receive construction materials by rail, the Coalition would use existing permanent rail-to-truck transload facilities located in Salt Lake City, Ogden, Provo, Helper, Price, and other locations in Utah, and would transfer the materials to trucks for final delivery to the project footprint. The Coalition would establish temporary material laydown, staging, and logistical areas within the project footprint at bridge locations, tunnel portals, roadway crossings, and other locations.

Staffing and Worker Housing

The average annual workforce during construction of all three Action Alternatives would include approximately 1,000 individuals, with peak employment of approximately 1,500 individuals. The Coalition expects that peak employment would occur between May 1 and October 30, during each year of construction. Most construction personnel would reside at their own personal residences or in existing commercial hotels and motels, but dedicated construction camps would be needed for some staff. Specifically, the Indian Canyon Alternative and Whitmore Park Alternative would each require one temporary construction camp for 30 to 40 people, and the Wells Draw Alternative would require two construction camps for 30 to 40 people and another construction camp for 200 people. Both proposed temporary construction camps would be located outside of ANF.

Bridges, Culverts, and Stream Realignments

The Project and associated access roads and road relocations would require bridges and culverts to cross streams, rivers, and drainages, as well as existing roadways. Within ANF, one bridge and 49 culverts would be required to cross streams along the Indian Canyon Alternative and Whitmore Park Alternative. Construction of the Project would also require realignments of stream segments to accommodate permanent project features, including portions of the rail bed and areas of cut and fill. Within ANF, there would be 0.9 mile of stream realigned along the Indian Canyon Alternative and Whitmore Park Alternative.

Tunnels

The Project would require tunnels to traverse the mountainous terrain surrounding the Basin. Drilling and blasting (i.e., “mine” construction methods) may be used in certain locations, depending on the length of the tunnel and the specific geological features at the tunnel locations. Tunnels over 1 mile long would likely require rock stabilization and ventilation features. Shorter tunnels may not require those features, depending on the specific geological features at the tunnel locations. The Indian Canyon Alternative and Whitmore Park Alternative would require three tunnels in ANF totaling 2.6 miles in length. The longest tunnel would be partially in ANF and partially on private lands.

Grade Crossings and Road Relocations

Paved public roadway crossings, if not grade-separated, would be equipped with active warning devices (bells, flashers, and gates) and constant warning time devices. Gravel and unsurfaced public roadway crossings and all private roadway crossings, if not grade-separated, would be equipped with passive warning devices (stop signs and crossbucks). The Coalition would design grade-crossing warning devices to comply with the *Manual on Uniform Traffic Control Devices* (Federal Highway Administration 2009) and applicable safety regulations. Construction of the Project would result in the relocation of existing public and private roads. Two roads totaling 0.24 mile along the Indian Canyon Alternative and Whitmore Park Alternative in ANF would be relocated.

Associated Facilities

Additional facilities that would be required include siding tracks and set-out tracks to enable trains to meet or pass; communications towers; and power distribution lines for signals, communication, and safety equipment. There would be one siding track totaling 3.7 miles in ANF along the Indian Canyon Alternative and Whitmore Park Alternative. No communications towers are proposed to be located in ANF. Power distribution lines would be needed for some signals, communication, and safety equipment. The Coalition would determine the exact locations of power distribution lines during detailed design following the conclusion of the Board's environmental review process. OEA anticipates that any needed power distribution lines would be constructed within the rail line footprint, and would connect to existing lines where there are connections adjacent to the rail line footprint. In more remote or inaccessible locations, OEA anticipates that the Coalition would use solar-powered equipment. This would include any power needed for the communications towers and remote grade crossings requiring active warning devices.

FOREST PLAN CONFORMANCE

If the Board were to approve the Indian Canyon Alternative or Whitmore Park Alternative, the Coalition would have to seek Forest Service approval for permitting the rail line right-of-way in the approximate 12-mile distance, which could include amending the Ashley Forest Plan in the areas of visual quality and scenery management, pursuant to the requirements of the 2012 Planning Rule (36 C.F.R. Part 219). Because the Indian Canyon Alternative and Whitmore Park Alternative would cross through roadless areas in ANF, review and approval by the Regional Forester would be needed to ensure consistency with the 2001 Roadless Area Conservation Rule (36 C.F.R., Part 294, Subparts A and B).

METHODS

The Forest Service conducted a Forest Service Sensitive species (wildlife and plants) screening exercise based on species habitat requirements and associations, existing Forest Service species survey information, and Forest Service biologists' knowledge of the Project area. The Forest Service conducted the species screening exercise for the 12-mile segment of the Indian Canyon Alternative and Whitmore Park Alternative that is within ANF, specifically the bottom of Left Fork Indian Canyon in the Duchesne South Unit. As a result of species screening, the Coalition

conducted field surveys for the Northern goshawk in June 2020 for the Project in ANF (Coalition 2020). The results of this survey effort provided information to determine if the Northern goshawk is likely to be present in the Project area. The Coalition examined all Forest Service Sensitive species during the screening process to assess the potential for those species to occur in the Project area.

AFFECTED ENVIRONMENT

Thirteen wildlife species and two plant species are listed as a Regional Forester's Sensitive species and are known or suspected to occur in ANF. Table 2 lists all 15 species and their habitats. Table 2 does not list, nor does this Biological Evaluation discuss, species federally listed as Threatened and Endangered (T&E), Proposed, or Candidate; instead they are evaluated in a Biological Assessment that OEA prepared for the Project per the Endangered Species Act Section 7(a)(2) purposes.

Table 2. Forest Service Sensitive Species Occurring, Potentially Occurring, or Influenced by Actions in Ashley National Forest

Species	Status	Habitat Use and Local Distribution	References
Spotted bat (<i>Euderma maculatum</i>)	S	Various habitats and elevations, but most often collected in dry, rough desert terrain. Distribution thought to be limited by availability of roosts (primarily under loose rock or in crevices in rock cliffs). On the south slope of the Uintas, they have been located near steep-walled stream canyons, such as Ashley Creek, Black Canyon, and Brush Creek. They have also been located on the South Unit in pinyon/juniper/sagebrush at 7,400 feet. Utah elevational range is 2,700-9,200 feet.	Forest Service 2006a
Townsend's big-eared bat (<i>Plecotus townsendii</i>)	S	Various habitats and elevations, but in Utah primarily found in shrub steppe and pinon/juniper habitats. Needs caves or mines for hibernation and maternity roosts; occasionally uses old buildings. Sensitive to disturbance at these roosts. Utah elevational range is 3,300-8,851 feet. Have been located in two caves in ANF. Limestone Hills, Limestone Plateau, and various canyon landtype associations contain most of the suitable habitat in ANF since they have rock formations that are likely to contain caves.	Forest Service 2006a
Bald eagle (<i>Haliaeetus leucocephalus</i>)	S	Usually occurs near Flaming Gorge Reservoir and Green River corridor during winter; occasionally near other waters until freeze-up. A new nest was discovered spring 2004 near Flaming Gorge and another along the Duchesne River (23 miles south of the Forest Boundary) in spring 2005.	Forest Service 2006a
Boreal owl (<i>Aegolius funerus</i>)	S	Spruce/fir or mixed conifer forest ^a may use aspen if suitable conifer is nearby. Possible but less likely in pure lodgepole. Secondary cavity nester; needs large (13-inch+) diameter trees for nesting. Availability of suitable nest sites can limit population size. Five boreal owls have been located in ANF, all in spruce/fir or mixed conifer.	Forest Service 2006a

Species	Status	Habitat Use and Local Distribution	References
Great gray owl (<i>Strix nebulosa</i>)	S	Conifer or conifer/hardwood forests. Two (possibly three) recent locations and one historic record in ANF, all in mixed conifer. Uses old stick nests constructed by other species, depressions in broken tops of trees, etc. for nesting. Uinta Mountains are at or just beyond southern limit of normal range; species is considered casual or irregular in Utah.	Forest Service 2006a
Flammulated owl (<i>Otus flammeolus</i>)	S	Ponderosa pine or Douglas-fir forests. Has been located in both of these forest types throughout ANF; has not been found in lodgepole or mixed conifer. Stream Pediment, Stream Canyon, Glacial Canyon, Limestone Plateau, and Limestone Hills landtype associations contain nearly all the suitable habitat on the south slope of the Uintas. Secondary cavity nester.	Forest Service 2006a
Three-toed woodpecker (<i>Picoides tridactylus</i>)	S	Coniferous forests or conifer mixed with aspen. Has been found in lodgepole, Douglas-fir, spruce/fir and mixed conifer in ANF. Excavates a new cavity for nesting each year. Forages by prying off loose, scaly tree bark to find insects. Trees used for both nesting and foraging average 11-inch dbh or more. Management recommendations include maintenance of some snags greater than 12-inch dbh, and with some bark still present.	Forest Service 2006a
Northern goshawk (<i>Accipiter gentilis</i>)	S	Most forest types. Uses a wide variety of forest types on the Ashley, but majority of our known breeding territories are in lodgepole or mixed conifer stands, especially in the Trout Slope LTA. Home ranges include a variety of stand ages and structures, but older-age stands with a high density of large trees, relatively high canopy closure and high basal area are preferred for nesting. Stands with large trees and relatively open understories are preferred for foraging. Sensitive to disturbance during the nesting season.	Forest Service 2006a, 2006b
Peregrine falcon (<i>Falco peregrinus</i>)	S	Known to nest on cliffs along Flaming Gorge Reservoir; sightings and one confirmed nest in canyons in the Stream Canyon and Glacial Canyon land type Associations. Usually found where rivers, marshes or other wet habitats are associated with cliffs, so the canyon land type associations are the most likely sites outside of Flaming Gorge Reservoir.	Forest Service 2006a
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	S	Sage grouse populations are allied closely with sagebrush habitats. Sagebrush habitats are important for the survival of nesting and wintering sage grouse.	Forest Service 2006a, 2006b
Pygmy rabbit (<i>Brachylagus idahoensis</i>)	S	Typically in dense stands of big sagebrush growing in deep loose soils. In southwestern Wyoming pygmy rabbits selectively used dense and structurally diverse stands of sagebrush that accumulated a relatively large amount of snow. May be present on the Flaming Gorge Ranger District, on the NRA.	USFWS 2010
Bighorn sheep (<i>Ovis canadensis</i>)	S	Bighorn sheep prefer open habitat types (high alpine to lower grasslands) with adjacent steep rocky areas for escape and safety. Habitat is characterized by rugged terrain including canyons, gulches, talus cliffs, steep slopes, mountaintops, and river benches.	UDWR 2018

Species	Status	Habitat Use and Local Distribution	References
Wolverine (<i>Gulo gulo luscus</i>)	S	Wolverines occur within a variety of alpine, boreal, and arctic habitats, including boreal forests, tundra, and western mountains throughout Alaska and Canada. The southern part of the species' range in the contiguous United States includes high-elevation alpine portions of Washington, Idaho, Montana, Wyoming, California, and Colorado. Wolverines are not common in Utah.	75 FR 78030
Goodrich blazingstar (<i>Mentzelia goodrichii</i>)	S	Goodrich blazingstar is endemic to southern Duchesne County, Utah, along escarpment of Willow and Argyle Canyons. It grows on steep, white, calciferous shale outcrops of the Green River and Uinta Formations with scattered limber pine, pinyon pine, Douglas-fir, mountain mahogany, and rabbitbrush communities between 6,440 and 8,800 feet in elevation.	UDWR undated; NatureServe Undated
Low greenthread (<i>Thelesperma caespitosum</i>)	S	Low greenthread is endemic to Duchesne County, Utah, and Sweetwater County, Wyoming. It grows in sparsely vegetated cushion plant communities with little or no cover of graminoids or shrubs on white shale slopes and ridges of the Green River Formation from 6,300 to 6,520 feet in elevation.	UDWR undated; NatureServe Undated

Notes:

^a Mixed conifer defined as Engelmann spruce, subalpine fir and lodgepole pine in ANF.

S = Forest Service Sensitive species; Forest Service = United States Department of Agriculture Forest Service;

ANF = Ashley National Forest; USFWS = United States Fish and Wildlife Service; FR = Federal Register;

UDWR = Utah Division of Wildlife Resources; dbh = diameter at breast height; NRA = National Recreation Area

Not all listed Sensitive species known or suspected to occur in ANF are likely to be affected by the Project. The purpose of this section is to identify those Sensitive species likely to be found in the project area and that would be affected by the Project.

As the initial step, the Forest Service reviewed current information to determine whether one or more of the species, or their habitats, occur in the Project area. The Forest Service used several sources of information to identify where listed species have been previously seen, including RD records, USFWS lists or documents, Forest Service biologist knowledge, species surveys (for Northern goshawk), and assorted wildlife references. The Forest Service used habitat information and known occurrences to ascertain whether each species was likely to occur in the Project area. The Forest Service considered the following two questions to focus the inquiry during this first step of the presence review.

- What is the primary habitat for each listed species?
- What is the likelihood the species occupies or depends on the area in or near to where the activity is proposed, given what is known about habitat needs?

The Forest Service then determined the species that would be potentially affected by the Project. To make this determination, the Forest Service asked the following two questions.

- What use is potentially made of the available habitat (reproduction or feeding/shelter) in the Project area?

- Given the habitat use, would the animal be susceptible to, or habitat be affected by, environmental changes engendered by the proposed action?

After gathering answers to the above four questions for each of the 15 species, the Forest Service determined that Forest Service Sensitive species either are not present in the Project area or may be occasionally present but would unlikely be affected by the Project. Therefore, no further detailed discussion or analysis was warranted for any species absent from the Project area or potentially present occasionally but having little or no likelihood of being negatively affected by the Project. The following list of factors provide the rationale for eliminating species from review in the effects evaluation portion of this report.

1. Suitable habitat is absent or lacking vital components in the Project area.
2. The Project area is located outside a species' known geographic or elevation range.
3. Proposed activity or disturbance effects would occur outside of an animal's seasonal occupancy of otherwise suitable habitat.
4. No elements of a species' primary habitat or life requisites would be changed by the proposed action.
5. No environmental changes (such as noise, modification of food web, or reduction in cover or shelter structures) created by the proposed action could be identified, which would negatively or detrimentally affect a species, its individual members, or its habitat.
6. Individual animals may be dispersing, happenstance, opportunistic or accidental visitors to the habitat(s) impacted by the proposal, but no affiliation or dependence upon that habitat has been shown.
7. A reproductive population of this species is not present in the vicinity and there remains scientific uncertainty as to whether a population of this species ever was resident in Utah in the recent past.
8. A lack (or absence) of recent trap, sighting, or other records indicates the species is unlikely to be present.
9. Considering the home range size for this animal in comparison to the area extent of the habitat affected by the proposed action, no measurable change in primary prey populations can be ascertained at the landscape level.

The Forest Service reviewed all the species in Table 2 to determine whether they or their habitat exists in the Project area (see Table 3). Some species may potentially be present occasionally but have little or no likelihood of being negatively affected by the Project.

Table 3. Forest Service Sensitive Species Occurrence in the Project Area

Species	Status	Occurrence in Project Area	Basis for occurrence determination
Peregrine falcon	S	Absent	Refer to factor # 1, 2, & 8 above
Spotted bat	S	Absent	Refer to factor # 1 & 8 above
Townsend's big-eared bat	S	Absent	Refer to factor # 1, 2, & 8 above
Bald eagle	S	Absent	Refer to factor # 1, 2 & 8 above
Boreal owl	S	Absent	Refer to factor # 1, 2, & 8 above
Great gray owl	S	Absent	Refer to factor #'s 1, 2 & 8 above ^a
Flammulated owl	S	Present	Refer to factor # 5 above
Three-toed woodpecker	S	Present	Refer to factor #5 above
Northern goshawk	S	Present	Refer to factor #5 above
Greater sage-grouse	S	Absent	Refer to factor # 1 & 2 above
Pygmy rabbit	S	Absent	Refer to factor # 1 & 2 above
Bighorn sheep	S	Present	Refer to factor # 5 above
Wolverine	S	Absent	Refer to factor #8 above
Goodrich blazingstar	S	Absent	Refer to factor #1 & 2 above
Low greenthread	S	Absent	Refer to factor #1 & 2 above

Notes:

^a Great gray owl sightings had occurred in 1996 on the vernal district though the individuals detected are classified as accidental visitors since no persistent population ever existed on ANF and ANF is beyond the southern extent of their range (Forest Service 2006a).

S = Forest Service Sensitive species; ANF = Ashley National Forest

EFFECTS ANALYSIS

Based on the review of the 15 Forest Service Sensitive Species described above, it was concluded that four species could be present in the Project area: flammulated owl, three-toed woodpecker, northern goshawk, and bighorn sheep. The primary Project impacts identified for these species include noise (construction and train operations) and habitat impacts (construction). Construction- and operations-related noise could displace individual animals and potentially affect normal foraging, migratory, and breeding behaviors. Habitat removal could also affect individual animals that may be in the Project area by displacing individuals, which can reduce survival and productivity because individual animals might need to expend more energy to locate suitable replacement habitat. However, construction noise would be temporary and operations noise would be intermittent, and any suitable habitat affected would be small compared to the available habitat surrounding the Project area. In addition, there is an existing transportation corridor, US 191, adjacent to the Project area in Left Fork Indian Canyon that already generates noise and has removed and fragmented habitats; a new rail line along this highway corridor would make it less likely for the species to be affected since it is likely habituated to traffic and noise or may already avoid this area. Further, presence of the species would be unlikely or the species is tolerable to noise. Surveys did not detect any goshawk nests in the Project area and there are no known goshawk territories within or near the Project area; the closest territory is in Sowers Canyon, which is the next drainage east of the Project area. In addition, bighorn sheep primarily herd in Right Fork Indian Canyon and away from the Project area, although they can occasionally use Left Fork Indian Canyon and have been documented near US 191 in the winter. The flammulated owl and three-toed woodpecker are relatively tolerant of human

activities, even during nesting. Therefore, no environmental changes (such as noise or modification of habitats) created by the Project could be identified, which would have significant adverse impacts on species or populations. No further discussion is warranted for any species absent from the Project area or potentially present but having little or no likelihood of being negatively affected by the Project.

SUMMARY

In summary, it is determined that the Project and the possible Forest Plan Amendment would have no impact to the peregrine falcon, spotted bat, Townsend's big-eared bat, bald eagle, boreal owl, great gray owl, northern goshawk, greater sage-grouse, pygmy rabbit, wolverine, Goodrich blazingstar, or low greenthread. Flammulated owl, three-toed woodpecker, and bighorn sheep could be present in the Project area, but little or no impact on these species is anticipated.

The discussion and analysis in this document was a consideration of the best available science.

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