

S.1 Introduction

On May 29, 2020, the Seven County Infrastructure Coalition (Coalition) filed a petition with the Surface Transportation Board (Board) pursuant to 49 United States Code (U.S.C.) 10502 requesting authority to construct and operate approximately 85 miles of new rail line in Carbon, Duchesne, Uintah, and Utah Counties, Utah. Also known as the Uinta Basin Railway, the proposed rail line would provide a common-carrier rail connection between the Uinta Basin in northeastern Utah and the existing interstate common-carrier rail network.

The Board's Office of Environmental Analysis (OEA), together with five cooperating agencies, prepared this ~~Draft~~ Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, and the Board's environmental rules.¹ The ~~Draft~~ EIS is intended to provide federal, state, and local agencies; American Indian tribes; and the public with clear and concise information about the potential environmental impacts of the proposed rail line. In preparing the ~~Draft~~ EIS, OEA considered three reasonable alternatives, known as the Indian Canyon Alternative, the Wells Draw Alternative, and the Whitmore Park Alternative (collectively referred to as the Action Alternatives), as well as the No-Action Alternative. As summarized in the following sections, OEA concludes that any of the Action Alternatives would result in significant environmental impacts. Appropriate mitigation would lessen those impacts and this ~~Draft~~ EIS recommends mitigation conditions for the Board to impose if the Board decides to authorize construction and operation of the proposed rail line. Should the Board decide to authorize the Coalition's petition, OEA ~~preliminarily~~ recommends that the Board authorize the Whitmore Park Alternative to avoid and minimize environmental impacts.

OEA ~~issued~~~~is issuing~~ the Draft EIS for public review and comment. ~~Following the end of the public comment period on December 14, 2020,~~ OEA ~~will~~ consider~~ed~~ all comments received on the Draft EIS and responded~~ed~~ to all substantive comments in ~~the~~ Final EIS. The Final EIS ~~will~~ include~~s~~ OEA's final environmental recommendations, including final recommended mitigation conditions. The Board will ~~now~~~~then~~ consider the entire environmental record, the Draft EIS and the Final EIS, all public and agency comments, and OEA's environmental recommendations in making its final decision on the Coalition's petition.

The sections that follow summarize the key elements of the development of the ~~Draft~~ EIS, including the project purpose and need, the Action Alternatives, and OEA's major conclusions regarding the potential environmental impacts of the proposed Uinta Basin Railway.

S.1.1 Purpose and Need

The proposed federal action in this case is the Board's decision to authorize, deny, or authorize with conditions the Coalition's petition. If the Board were to ~~grant~~~~authorize~~ the petition, the proposed rail line would be operated as a common carrier rail line. As a common carrier, the Coalition would be required to provide rail service to any shipper upon reasonable request. The proposed rail line is not being proposed or sponsored by the federal government. Therefore, the purpose and need of the

¹ While much of the ~~Draft~~ EIS generally refers only to OEA, the document reflects input from all cooperating agencies, as well as other participating agencies that OEA consulted with during the preparation of the ~~Draft~~ EIS.

proposed rail line is informed by both the goals of the Coalition, as the project applicant, and the Board’s enabling statute, 49 U.S.C. § 10901. Construction and operation of new rail lines requires prior authorization by the Board under 49 U.S.C. § 10901(c), which directs the Board to grant construction proposals “unless” the Board finds the proposal “inconsistent with the public convenience and necessity (PC&N).” This is a permissive licensing standard that presumes that rail construction projects are in the public interest unless shown otherwise. [The Coalition, however, has sought an exemption under § 10502 from the regulatory requirements of § 10901; therefore, the public convenience and necessity standard in § 10901—although instructive—does not directly apply in this case. Under § 10502, the Board here must grant an exemption if it finds that the application of § 10901 \(in whole or in part\) is not necessary to carry out the Rail Transportation Policy contained in § 10101 and either the rail construction and operation is of limited scope or the application of § 10901 is not needed to protect shippers from the abuse of market power.](#)

The Coalition’s petition states that the purpose of the proposed rail line would be to provide common carrier rail service connecting the Basin to the interstate common carrier rail network using a route that would provide shippers with a viable alternative to trucking. Because it is surrounded by high mountains and plateaus, the Basin has limited access to all transportation modes and all freight moving into and out of the Basin is ~~currently~~^{currently} transported by trucks on the area’s limited road network. According to the Coalition, the proposed rail line would provide customers in the Basin with multi-modal options for the movement of freight; promote a safe and efficient system of freight transportation; further the development of a sound rail transportation system; and foster sound economic conditions in transportation and effective competition and coordination between differing modes of transportation. While the Board will ultimately determine whether to authorize or deny the petition, the Coalition’s stated purposes appear to be consistent with the PC&N.²

S.1.2 Proposed Action

The Coalition is an independent political subdivision of the State of Utah established under an inter-local agreement by the Utah counties of Carbon, Daggett, Duchesne, Emery, San Juan, Sevier, and Uintah. The Coalition has entered into or intends to enter into agreements with Drexel Hamilton Infrastructure Partners (Drexel Hamilton), Rio Grande Pacific Corporation (~~RGPC~~^{Rio Grande}) and the Ute Indian Tribe of the Uintah and Ouray Reservation (the Ute Indian Tribe). If the Board were to authorize the proposed construction and operation, the Coalition ~~’s petitions~~ states that Drexel Hamilton would be responsible for financing and commercialization of the proposed rail line and ~~RGPC~~^{Rio Grande} would operate and maintain it. The Coalition expects that the Ute Indian Tribe would become an equity partner in the proposed rail line.³

The proposed rail line would consist of a single main track with sidings to let trains pass each other. The track would be constructed of steel rail supported by timber, steel, or concrete ties. The rail right-of-way would be approximately 100 feet wide along most of its length but could be considerably wider in some locations where the rugged topography would require large areas of cut-and-fill. Numerous bridges and culverts would be required to cross major roads, waterways, and

² [The Board issued a preliminary decision on the transportation merits under the § 10502 exemption criteria in this proceeding on Jan. 5, 2021. *Seven County Infrastructure Coalition – Rail Constr. and Oper. Exemption – In Utah, Carbon, Duchesne, and Uintah Counties, Utah, FD 36284 \(Jan. 5, 2021\).*](#)

³ [As used in this EIS, references to the Coalition as the project applicant also refer to any private partners that may be involved in the construction and operation of the proposed rail line, including Drexel Hamilton and RGPC.](#)

topographical features and several tunnels would also be constructed under mountain summits. Other permanent project features would include at-grade road crossings, communications towers, signaling and safety equipment, and permanent access roads and road realignments. Construction of the proposed rail line would involve a variety of construction methods and equipment. Bulldozers, 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. The Coalition anticipates that mining and potentially blasting methods would be used to construct tunnels. Rail would be laid and welded by track welding machine or crews where necessary. During construction, temporary access roads would be necessary for construction equipment to reach construction sites. One or more temporary camps would be installed to house construction workers and land outside of the permanent rail right-of-way would have to be cleared to create temporary laydown and staging areas.

Following construction, the Coalition anticipates that trains on the proposed rail line would primarily transport crude oil produced in the Basin to markets across the United States, but could also carry other bulk commodities and products, including fracturing sand, building products, industrial materials, and agricultural products. Depending on future market conditions, including the global price of crude oil, the Coalition anticipates that between approximately 3.68 or as many as 10.52 trains could [operatemove](#) on the proposed rail line each day, on average, including both loaded and empty trains.

S.1.3 Cooperating Agency Actions

Four federal agencies and one state agency, acting as lead agency for other Utah State agencies, provided input [throughout](#) the development of [the](#) Draft EIS [and Final EIS](#) as cooperating agencies [and will continue to participate in the Board's environmental review process throughout the public comment period and issuance of the Final EIS](#). Those agencies and their potential actions are listed below.

- The Department of Agriculture, U.S. Forest Service (Forest Service) intends to consider the Coalition's request for a special use permit allowing the Coalition to cross National Forest System lands if the Board were to authorize an alternative that crosses Ashley National Forest. The Forest Service has given notice that its decision to permit the proposed rail line may include amending the existing *Ashley Forest Land and Resource Management Plan* in the areas of visual quality and scenery management pursuant to the Forest Service's 2012 Planning Rule (36 Code of Federal Regulations [C.F.R.] Part 219).
- The Department of the Army, U.S. Army Corps of Engineers (Corps), through the Regulatory Program, administers and enforces Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Under Rivers and Harbors Act Section 10, a permit is required for work or structures in, over, or under navigable waters of the United States. Under Clean Water Act Section 404, a permit is required for the discharge of dredged or fill material into waters of the United States. On September 30, 2020, the Corps issued a public notice announcing that it was evaluating the Coalition's application for a permit under Section 404 of the Clean Water Act.
- The Department of the Interior, Bureau of Indian Affairs (BIA) intends to consider the Coalition's request for a right-of-way across Tribal trust lands within the Ute Indian Tribe's Uintah and Ouray Reservation if the Board authorizes an alternative that crosses Tribal trust lands.

- The Department of the Interior, Bureau of Land Management (BLM) intends to consider the Coalition's request for a right-of-way across BLM-administered lands if the Board authorizes an alternative that crosses BLM-administered lands. The issuance of a right-of-way would be subject to the requirements of the BLM's applicable Resource Management Plans (RMPs), including the Vernal Field Office RMP, Price Field Office RMP, and Pony Express RMP. As proposed, the Indian Canyon Alternative and Wells Draw Alternative would not be in compliance with greater sage-grouse noise thresholds in the Price Field Office RMP and Pony Express RMP, and BLM may need to amend these plans to issue a right-of-way grant. BLM may also need to amend the Vernal Field Office RMP based on where the Wells Draw Alternative crosses BLM Visual Resource Management Class II land and the Lears Canyon Area of Critical Environmental Concern.
- The State of Utah's Public Lands Policy Coordinating Office (PLPCO) is coordinating the participation of state agencies in the Board's environmental review process. The Coalition intends to seek permits or approvals from multiple state agencies to construct and operate the proposed rail line, including rights-of-way across state lands administered by the Utah State Institutional Trust Lands Administration (SITLA).

S.2 Draft EIS and Final EIS Process

OEA is the office at the Board responsible for conducting the environmental review process, independently analyzing environmental data, and making environmental recommendations to the Board. OEA ~~considered~~[will consider](#) all comments received on ~~the~~[this](#) Draft EIS and ~~responded~~[to](#) substantive comments in ~~this~~[the](#) Final EIS, which ~~will~~[includes](#) OEA's final recommended environmental mitigation. [Changes made to the Draft EIS appear in blue in the Final EIS.](#) The Board will [now](#) consider the entire environmental record, the Draft EIS and Final EIS, all comments received, and OEA's recommendations in making its final decision on the Coalition's petition.

S.2.1 Scoping and Consultation

S.2.1.1 Scoping

To help determine the scope of the EIS, OEA involved the public, government agencies, tribes, and other interested organizations. On June 19, 2019, OEA published a Notice of Intent (NOI) to prepare an EIS and a Draft Scope of Study for the EIS in the Federal Register. Publication of the NOI initiated a 45-day public scoping period that was scheduled to end on August 3, 2019. In response to requests to extend the public scoping period, the Board extended the scoping comment period for an additional 30 days. The scoping comment period ended September 3, 2019.

During the scoping period, OEA held six public scoping meetings in the project area. Approximately 420 people attended the public meetings, including citizens; tribal members; representatives of organizations; elected officials; and officials from federal, state, and local agencies. OEA also met with federal and state cooperating and consulting agencies to discuss the scope of this EIS. OEA considered all input received during the scoping process. On December 13, 2019, OEA published the Final Scope of Study for the EIS in the Federal Register. The Final Scope of Study directed OEA's analysis for ~~this~~[the](#) Draft EIS.

S.2.1.2 Draft EIS Public Comment Period

On October 30, 2020, the Board issued the Draft EIS for review and comment. On that date, OEA published a Notice of Availability in the Federal Register, which announced the availability of the Draft EIS, instructions on how to submit comments on the Draft EIS, and the schedule and instructions for participating in online public meetings. The Notice of Availability noted that the comment period would end December 14, 2020. Following the issuance of the Draft EIS, the Board twice extended the public comment period. On December 9, 2020, OEA announced an extension of the public comment period for 60 days until January 28, 2021. On January 28, 2021, OEA announced an additional extension of the comment period for 15 days until February 12, 2021.

OEA conducted six online public meetings during the comment period. These meetings were held online due to OEA's concerns for public safety during the COVID-19 pandemic and COVID-19-related restrictions on large gatherings and travel. Over the course of the six online public meetings, 209 persons registered to attend, and 55 persons registered in advance to make oral comments. Persons who did not register in advance were able to participate in any of the meetings by following the instructions on the project website or by dialing the telephone number that OEA made available on the public website. When time permitted during an online public meeting, the meeting facilitator called upon persons desiring to make an oral comment, but who had not registered in advance to do so.

OEA received 1,934 comment submissions on the Draft EIS, including both written and oral comments. Of those, 1,065 were form letters associated with one of two master form letters, and 184 were form letters with some unique text. Of the total comment submissions, 869 were unique comment submissions.

S.2.1.2S.2.1.3 Agency Consultation

OEA consulted with appropriate federal, state, and local agencies during the preparation of this ~~Draft~~ EIS. As part of scoping under NEPA and before the NOI was published, OEA sent consultation letters to 27 agencies soliciting their input, comments, ideas, and concerns regarding this ~~Draft~~ EIS. Following the publication of the NOI, OEA held biweekly conference calls with the cooperating agencies and other participating agencies. OEA also held teleconferences and in-person meetings with participating agencies, including the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service as needed throughout development of this ~~Draft~~ EIS to discuss resource-specific topics. ~~OEA will continue to meet with cooperating and other agencies throughout the course of developing the Final EIS.~~

S.2.1.3S.2.1.4 Tribal Consultation

OEA consulted with tribal organizations throughout the development of this ~~Draft~~ EIS. Executive Order 13175 requires that federal agencies conduct government-to-government consultations with federally recognized Indian tribes in the development of federal policies, as does Section 106 of the National Historic Preservation Act. On June 19, 2019, OEA sent letters to 12 federally recognized tribes that have current and ancestral connections to the area surrounding the proposed rail line inviting them to enter into government-to-government consultation and Section 106 consultation, as appropriate. The Ute Indian Tribe is the only federally recognized tribe that indicated it wanted to enter into both government-to-government consultation and Section 106 consultation. OEA met with representatives of the Ute Indian Tribe, including the Tribal Business Committee and the tribe's Cultural Rights Protection Department, in-person and by phone throughout the development of this

[Draft](#) EIS to discuss the Section 106 process, provide updates on the EIS, and learn about issues of concern to the tribe.

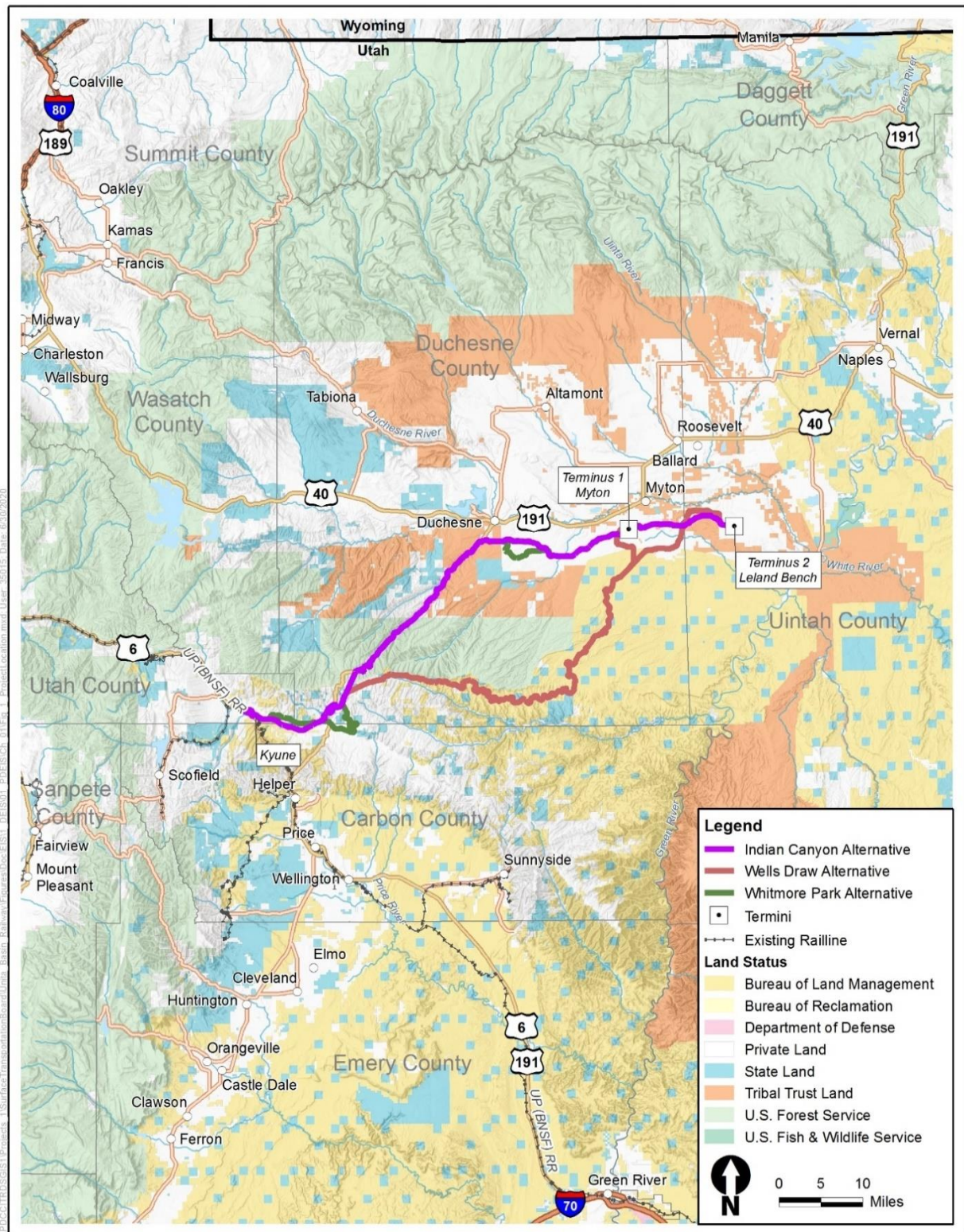
The Hopi Tribe of Arizona did not enter into government-to-government consultation but opted to participate in Section 106 consultation. OEA held monthly conference calls with all Section 106 consulting parties [between January 2020 and April 2021](#) and continued to invite the 12 federally recognized tribes to participate in these meetings throughout the development of this [Draft](#) EIS. OEA provided meeting transcripts and meeting materials from all Section 106 conference calls on the Board's website and the project website (www.uintabasinrailwayeis.com).

S.3 Alternatives

NEPA requires that federal agencies consider reasonable alternatives to the proposed action. To be reasonable, an alternative must meet the project purpose and need and must be logistically feasible and practical to implement. The three Action Alternatives examined in this [Draft](#) EIS—the Indian Canyon Alternative, the Wells Draw Alternative, and the Whitmore Park Alternative—were developed over the course of several years of analysis by the Utah Department of Transportation (UDOT) and the Coalition, and later OEA. Because the Basin is surrounded by high mountains and plateaus, there are very few feasible routes that would allow freight trains to operate [within modern standards of safety and efficiency](#)~~safely and efficiently~~. In 2014 and 2015, UDOT examined the feasibility of constructing a rail line to connect the Basin to the interstate railroad network. In 2019 and 2020, the Coalition reassessed the conceptual routes that UDOT identified and additional potential alignments identified by the Coalition. The Coalition initially proposed that OEA consider three routes as potential alternatives in the EIS, based on UDOT's and the Coalition's studies. Those proposed alternatives were the Indian Canyon Alternative, the Wells Draw Alternative, and an alignment referred to as the Craig Route. After considering the comments that OEA received during the EIS scoping process, the Coalition proposed an additional route as a potential alternative. That route, the Whitmore Park Alternative, although similar to the Indian Canyon Alternative, would avoid some sensitive habitat and some residential areas relative to the Indian Canyon Alternative.

Based on the analyses conducted by UDOT, the Coalition, and OEA, as well as comments submitted during scoping, OEA concluded that, of the conceptual routes that were considered at various times, only three alternatives would be reasonable under NEPA. Those routes are the Indian Canyon Alternative, Wells Draw Alternative, and Whitmore Park Alternative (Figure S-1). OEA eliminated the Craig Route from detailed review in this [Draft](#) EIS because that alignment would not meet the Coalition's purposes and because it would have the potential to cause disproportionately significant environmental impacts compared to the Action Alternatives. In addition to the Action Alternatives, OEA also analyzed the No-Action Alternative, which would occur if the Coalition did not construct and operate the proposed rail line.

Figure S-1. Project Alternatives



Each of the Action Alternatives would extend from two terminus points in the Basin near Myton, Utah and Leland Bench, Utah to a proposed connection with the existing Union Pacific (UP) Provo Subdivision near Kyune, Utah. The Indian Canyon Alternative, Wells Draw Alternative, and Whitmore Park Alternative would be approximately 81 miles, 103 miles, and 88 miles in length, respectively.

S.4 Conclusions on Environmental Impacts

OEA has conducted an extensive review of the environmental impacts that could result from construction and operation of the proposed rail line. Based on consultation with federal, state, and local agencies; consultation with tribes; input provided by organizations and the public; and its own independent environmental analysis, OEA has reached the following conclusions about the potential impacts of the Action Alternatives.

S.4.1 Major Impacts

OEA identified the following significant and adverse impacts that could occur as a result of the proposed rail line. Table S-1 provides additional details regarding these major impacts.

- **Water Resources.** Construction and operation of the proposed rail line, if authorized, would result in unavoidable impacts on surface waters and wetlands, including the loss of wetland habitat and permanent changes to surface water hydrology from crossing structures and stream realignments. Across the three Action Alternatives, the Whitmore Park Alternative would permanently affect the smallest total area of surface waters and wetlands, while the Wells Draw Alternative would affect the largest area. The Coalition has proposed voluntary mitigation measures related to water resources and OEA is recommending additional mitigation measures that would reduce but not eliminate impacts (Chapter 4, *Mitigation*). If the mitigation measures are implemented, the Coalition would need to obtain a permit from the Corps under Section 404 of the Clean Water Act before beginning construction of the proposed rail line. The Coalition would need to undertake efforts to avoid or minimize impacts on water resources during the final engineering and design phase, as part of the Section 404 permitting process. For unavoidable impacts on waters under the Corps' jurisdiction, the Coalition would need to develop and implement a plan for compensatory mitigation in consultation with the Corps.
- **Special Status Species.** Any of the Action Alternatives would cross suitable habitat for several plant species that are listed as threatened or endangered under the Endangered Species Act, including Pariette cactus, Uinta Basin hookless cactus, Barneby ridge-cress, and Ute ladies'-tresses. OEA is consulting with the U.S. Fish and Wildlife Service (USFWS) to determine appropriate measures for avoiding, minimizing, or mitigating impacts on those species, but some impacts would be unavoidable. Any of the Action Alternatives would also cross habitat for the greater sage-grouse, a bird species that is managed by BLM and the State of Utah. The Action Alternatives would each pass near one or more greater sage-grouse leks, which are areas where male grouse perform mating displays and where breeding and nesting occur. Depending on the Action Alternative, several of those leks could experience significant increases in noise during construction and during rail operations, which would disturb the birds and potentially cause them to abandon the leks. OEA has determined that the Whitmore Park Alternative would avoid or minimize impacts on greater sage-grouse relative to the other Action Alternatives because it

would be located further away from more leks and associated summer brood rearing habitat. In addition, the Coalition, in consultation with OEA and the State of Utah, is developing voluntary mitigation to address impacts on greater sage-grouse by restoring or creating greater sage-grouse habitat outside of the immediate project area (Chapter 4, *Mitigation*). If that mitigation is implemented, and if the Whitmore Park Alternative is constructed, OEA concludes that impacts on greater sage-grouse would not be significant.

- **Wayside Noise.** Wayside noise refers to train noise adjacent to a rail line that comes from sources other than the locomotive horn, such as engine noise, exhaust noise, and noise from steel train wheels rolling on steel rails. During rail operations, wayside noise would depend on factors such as train speed, train length, and number of locomotives. If the volume of rail traffic were at the highest projected level of 10.52 trains per day, on average, then OEA concludes that up to six residences would experience an increase in noise that would exceed the Board's thresholds for adverse noise impacts, depending on the Action Alternative. Among the Action Alternatives, the Indian Canyon Alternative would result in the most severe noise impacts. OEA is recommending mitigation to address noise impacts, including a requirement for the Coalition to install sound insulation at residences that could experience an adverse noise impact (Chapter 4, *Mitigation*).
- **Land Use and Recreation.** Any of the Action Alternatives could significantly affect land uses on public, private, or tribal lands. The Indian Canyon Alternative and Whitmore Park Alternative would each cross inventoried roadless areas within Ashley National Forest and Tribal trust land within the Ute Indian Tribe's Uintah and Ouray Reservation. The Wells Draw Alternative would cross the Lears Canyon Area of Critical Environmental Concern (ACEC) and Lands with Wilderness Characteristics on BLM-administered lands. Noise and visual impacts would disturb recreational activities on those public lands, such as camping, hiking, and hunting, as well as recreational activities on private and tribal lands. If the mitigation measures set forth in this [Draft EIS](#) are implemented, the Coalition would need to consult with appropriate federal, state, and tribal land managing agencies to address impacts on land use and recreation (Chapter 4, *Mitigation*), but some impacts would be unavoidable.
- **Socioeconomics.** Construction and operation of the proposed rail line would result in locally significant impacts on socioeconomics. The impacts would include beneficial impacts, such as the creation of jobs for construction and operations and maintenance workers, as well as increased local tax revenue. Adverse socioeconomic impacts would include the acquisition and displacement of residential and nonresidential structures on private land and the severance of properties, which could reduce their value for grazing, agriculture, and other economic uses. The Indian Canyon Alternative would have the greatest adverse impact on smaller private property owners because it would cross the greatest number of smaller-subdivided properties; the Wells [Draw AlternativeRoute](#) would affect the smallest area of private property, but would displace the largest number of residences; and the Whitmore Park Alternative would affect the largest total area of private property, [and would](#) primarily affect larger property owners and ranching and farming operations.
- **Tribal Concerns.** Through ongoing government-to-government consultation with the Ute Indian Tribe, OEA identified impacts related to vehicle safety and delay, rail operations safety, biological resources, air emissions, and cultural resources as areas of concern for the tribe. OEA has presented those impacts in this [Draft EIS](#) and is recommending appropriate mitigation to minimize the impacts. In particular, OEA [worked is working](#) with the Ute Indian Tribe and other Section 106 consulting parties to develop a Programmatic Agreement that [sets will set](#) forth how

cultural resources would be protected if the Board were to authorize the proposed rail line. In addition, OEA has identified impacts on the Pariette cactus and the Uinta Basin hookless cactus as disproportionately high and adverse impacts on an environmental justice community. Because those species are culturally important to the Ute Indian Tribe, OEA is recommending mitigation requiring the Coalition to consult with the Ute Indian Tribe regarding impacts on those special status plant species and to abide by the tribe's requirements for addressing the impacts (Chapter 4, *Mitigation*).

S.4.2 Minor Impacts

In addition to the major impacts listed above, this [Draft](#) EIS also discusses the following impacts that would not be significant if the Coalition's voluntary mitigation measures and OEA's recommended mitigation measures set forth in Chapter 4, *Mitigation* are implemented. Table S-1 provides additional details on those minor impacts.

- Vehicle Safety and Delay.** Construction and operation of any of the Action Alternatives would introduce new vehicles (such as construction and maintenance vehicles) on public roadways and would require the construction of new at-grade road crossings. OEA believes that if the mitigation measures set forth in this [Draft](#) EIS are implemented impacts from the new vehicles and at-grade road crossings would not significantly affect vehicle safety on public roadways or cause significant delay for people traveling on local roads. Those mitigation measures include a requirement for the Coalition to consult with appropriate federal, tribal, state, and local transportation agencies to determine the final design of the at-grade crossing warning devices and to follow standard safety designs for at-grade road crossings, among other measures.
- Rail Operations Safety.** Operation of any of the Action Alternatives would involve the risk of rail related accidents, potentially including collisions, derailments, or spills. OEA concludes that the probability of a major rail accident that could result in injuries or fatalities or that could release hazardous materials into the environment or cause a fire would be low if the mitigation measures set forth in this [Draft](#) EIS are implemented. Those mitigation measures include the requirement that the Coalition prepare a hazardous materials emergency response plan to address potential derailments or spills and distribute the plan to federal, state, local, and tribal emergency response agencies, among other measures.
- Big Game.** [Any of the Action Alternatives would cross big game movement corridors. The total number of affected movement corridors would be similar between the Action Alternatives. Although the Wells Draw Alternative would affect the smallest total number of big game movement corridors, it would affect a greater number of high-importance movement corridors compared to the Indian Canyon Alternative and the Whitmore Park Alternative. Operation of the proposed rail line could injure big game due to collisions with trains and maintenance equipment around big game movement corridors. Higher mortality rates would likely occur around the locations of the movement corridors that cross or parallel the Action Alternatives \(Appendix G, *Biological Resources Figures*, contains figures displaying the movement corridors for each big game species along the Action Alternatives\). Disrupted migration along movement corridors could also prevent herds from reaching high-quality forage, which could result in physiological stresses and the expenditure of greater amounts of energy to reach resources. The mitigation set forth in this Final EIS would require the Coalition to work with landowners to define areas of the right-of-way that can be left without fences to maintain big game migration corridors. In addition, OEA is recommending mitigation requiring the Coalition develop a big](#)

[game movement corridor crossing plan in consultation with the Ute Indian Tribe, UDWR, OEA, and appropriate land management agencies \(Chapter 4, Mitigation\)](#). If this mitigation is implemented, OEA concludes that impacts on big game movement corridors would not be significant.

- **Fish and Wildlife.** In addition to special status animal species [and big game species](#), construction and operation of any of the Action Alternative would affect other species of fish and wildlife, including reptiles, mammals, and birds. Habitat in the footprint of the proposed rail line would be permanently lost and other areas of habitat could be temporarily disturbed during construction. The proposed rail line would create a barrier to the movement of wildlife, [including big game species](#). Among other measures, the mitigation set forth in this [Draft EIS](#) would require the Coalition work with landowners to define areas of the right-of-way that can be left without fences to maintain big game migration [measures corridors and develop a big game movement corridor crossing plan that would benefit other wildlife species](#). If these mitigation measures are implemented, OEA concludes that impacts on biological resources would not be significant.
- **Vegetation.** In addition to the special status plant species discussed above, construction and operation of any of the Action Alternatives would affect other species of vegetation. Vegetation within the footprint of the proposed rail line would be permanently removed and vegetation in construction areas would be temporarily cleared or disturbed. It is possible that operation of the proposed rail line or a rail-related accident could trigger a wildfire, which could destroy larger areas of vegetation, but the risk that the proposed rail line would cause fire would be very low. If the mitigation measures set forth in this [Draft EIS](#) are implemented, OEA does not expect that impacts on vegetation would be significant. Among other requirements, the mitigation measures would require the Coalition to revegetate disturbed areas when construction is completed in consultation with appropriate federal, state, and tribal agencies.
- **Geology and Soils.** Construction of any of the Action Alternatives would involve large amounts of earthmoving and soil disturbance. During rail operations, the proposed rail line could potentially be affected by geological hazards, such as landslides, but this impact would be minimized by the implementation of appropriate mitigation measures, including pre-construction geotechnical investigations to identify areas that are at risk of landslide. OEA concludes that impacts related to geology, soils, and geological hazards would not be significant if the Coalition's voluntary mitigation measures and OEA's additional recommended mitigation measures are implemented.
- **Hazard Waste Sites.** Although none of the Action Alternatives would be located near hazardous wastes sites with a documented history of releasing hazardous materials into the environment, construction and operation of the proposed rail line would affect both active and abandoned oil and gas wells. If OEA's recommended mitigation measures are implemented, OEA concludes that impacts involving hazardous wastes sites would not be significant. Among other requirements, those mitigation measures include a requirement for the Coalition to follow appropriate safety procedures for the abandonment of oil and gas wells in the footprint of the proposed rail line.
- **Construction Noise.** Construction activities would result in noise from the operation of construction equipment, such as bulldozers, front end loaders, and dump trucks. The installation of bridges over waterways could involve pile-driving, which is an especially noisy construction activity that could disturb recreationalists and residences, as well as fish and wildlife. Noise impacts during construction would be temporary and would move or end over time. The

mitigation set forth in this ~~Draft~~ EIS include a requirement for the Coalition to develop a construction noise and vibration control plan and to conduct noise and vibration monitoring, as necessary, during construction. If that and other recommended mitigation measures are implemented, noise impacts during construction would not be significant.

- **Vibration.** Construction activities would also result in vibrations, but these would be infrequent, temporary, and well below the intensity that could damage structures, such as residences. During rail operations, the vibrations caused by trains moving on the proposed rail line would not be strong enough to cause damage or annoyance to people living nearby. OEA concludes that vibration impacts would not be significant if OEA's recommended mitigation measures, including the development of a noise and vibration control plan, are implemented.
- **Air Quality and Greenhouse Gases.** During construction, construction equipment would emit air pollutants, including criteria air pollutants that could contribute to poor air quality and greenhouse gases that would contribute to climate change. Construction-related air emissions would not cause concentrations of criteria air pollutants to exceed the National Ambient Air Quality Standards (NAAQS) and would not exceed the de minimis thresholds for air emissions within the Uinta Basin ozone nonattainment area or~~f~~ the Utah County PM₁₀ Maintenance area. During rail operations, locomotives would emit criteria air pollutants and greenhouse gases. Those operations-related emissions would ~~also not cause concentrations of criteria air pollutants to exceed the NAAQS~~~~expose residents living near the rail line to air pollutant concentrations that would exceed the NAAQS~~, even if rail traffic on the proposed rail line were at the highest projected level of 10.52 trains per day. Greenhouse gas emissions during construction and operation would represent a small percentage of statewide greenhouse gas emissions in Utah.
- **Energy.** Any of the Action Alternatives would cross existing utility corridors and roads used to transport energy resources, such as oil and natural gas. Active oil and gas wells within the footprint of the proposed rail line would be permanently abandoned. OEA's recommended mitigation measures, which include a requirement for the Coalition to design any crossings or relocations of pipelines or electrical transmission lines in accordance with applicable federal and state standards, would prevent significant impacts on energy infrastructure.
- **Paleontological Resources.** Any of the Action Alternatives would cross areas where scientifically important paleontological resources (fossils) may be located. Construction activities, such as digging, earthmoving, and tunnel construction, could damage or destroy known or undiscovered fossils in those areas. To address these potential impacts, OEA is recommending a mitigation measure requiring the Coalition to engage a qualified paleontologist to develop and implement a paleontological resources monitoring and treatment plan. If OEA's recommended mitigation is implemented, OEA concludes that impacts on paleontological resources would not be significant.
- **Visual Resources.** Construction and operation of the proposed rail line would introduce a new and highly noticeable industrial infrastructure that would affect visual resources, including visually sensitive areas. Among other measures, OEA is recommending mitigation requiring the Coalition design bridges, ~~design bridges~~, communications towers, and other project-related features to complement the natural landscape and minimize visual impacts on the landscape. OEA concludes that, if the mitigation measures are implemented, visual impacts from the proposed rail line would not be significant.

S.4.3 Downline Impacts

Rail traffic from the proposed rail line would merge on to main lines and move to destinations throughout the United States. To assess the potential impacts of increased rail traffic on main lines outside of the immediate project area, OEA defined a downline study area that extends from the proposed connection near Kyune to the northern, eastern, and southern edges of the Denver Metro/North Front Range air quality nonattainment area. The impacts from the additional traffic on these main lines could include air quality impacts associated with locomotive exhaust, increased wayside noise, increased risk of accidents at at-grade road crossings, and increased vehicular delay at road crossings. OEA does not expect that downline impacts would be significant.

S.4.4 Cumulative Impacts

OEA reviewed information on relevant past, present, and reasonably foreseeable projects and actions that could have impacts that coincide in time and location with the potential impacts of the proposed rail line. OEA identified 276 relevant projects, including facility and infrastructure improvements, watershed improvements, road improvements, two interstate electric power transmission projects, [one crude oil processing facility](#), one Programmatic Agreement for cultural resource preservation, projects on Forest Service lands, and projects on BLM-administered lands. OEA's cumulative impacts assessment also included an analysis of potential future oil and gas development in the Basin and the potential future construction and operation of new rail terminal facilities near Myton and Leland Bench. Based on the cumulative impacts analysis, OEA concludes that the impacts of those projects in combination with the impacts of the proposed rail line could result in cumulative adverse impacts on water resources, biological resources, paleontological resources, land use and recreation, visual resources, and socioeconomics.

S.4.5 Environmentally Preferred Alternative

Based on OEA's analysis and consultation with appropriate government agencies, the Ute Indian Tribe, other interested stakeholders, and the public, OEA [preliminarily](#) concludes that, among the three Action Alternatives, the Whitmore Park Alternative would result in the fewest significant impacts on the environment. In particular, the Whitmore Park Alternative would permanently affect the smallest area of water resources, including wetlands and perennial streams; would minimize impacts on greater sage-grouse leks and associated summer brood rearing habitat; and would avoid impacts on subdivided residential areas.

Compared to the Wells Draw Alternative, the Whitmore Park Alternative would permanently and temporarily affect a smaller area of wetlands and of intermittent streams, as well as a smaller number of springs. It would avoid impacts on special use areas on BLM-administered lands, including Areas of Critical Environmental Concern, Lands with Wilderness Characteristics, and areas classified by BLM as sensitive to visual impacts. The Whitmore Park Alternative would affect a smaller area of suitable habitat for the Pariette Cactus and Uinta Basin Hookless Cactus than the Wells Draw Alternative, would avoid potential impacts on moderately suitable habitat for the threatened Mexican spotted owl and a smaller area of big game habitat. In addition, it would result in fewer total emissions of criteria air pollutants and greenhouse gases during construction and during rail operations; would cross a smaller area of land that may be prone to landslides; would result in fewer displacements of residences; would involve a lower risk for accidents at at-grade road crossings; and would cross a smaller area with high potential for wildfires.

Compared to the Indian Canyon Alternative, the Whitmore Park Alternative would permanently and temporarily affect a smaller area of wetlands, a smaller area of riparian habitat, and smaller number of springs and would also require fewer stream realignments. It would avoid noise impacts on residences during rail operations, as well as visual and other impacts on residential areas in the Argyle Canyon and Duchesne Mini-Ranches areas of Duchesne County. The Whitmore Park Alternative would generate more employment, labor income, and local and state tax revenue during construction than the Indian Canyon Alternative and would cross a smaller area of geological units that may be prone to landslides and a smaller area of land with high wildfire hazard potential.

For these reasons, if the Board decides to authorize construction and operation of the proposed rail line, OEA ~~preliminarily~~ recommends that the Board authorize the Whitmore Park Alternative to minimize impacts of construction and operation on the environment. ~~OEA invites agency and public comment on this preliminary recommendation and will make its final recommendations to the Board in the Final EIS after considering all comments received during the public comment period.~~

S.5 Summary of Impacts

Table S-1 summarizes and compares potential impacts for each resource area as well as downline impacts. The table does not include the No Action Alternative because, under that alternative, existing conditions would remain the same.

Table S-1. Summary of Impacts

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Vehicle Safety and Delay			
Total VMT during construction	194,035,062	328,384,855	234,989,847
Annual VMT during operations	<ul style="list-style-type: none"> • Low rail traffic scenario:^a -902,385 • High rail traffic scenario:^a 1,002,046 	<ul style="list-style-type: none"> • Low rail traffic scenario: -15,409 • High rail traffic scenario: 2,346,551 	<ul style="list-style-type: none"> • Low rail traffic scenario: -835,637 • High rail traffic scenario: 1,135,542
Average daily trips during construction	3,659	3,243	4,163
Average daily trips during operation	<ul style="list-style-type: none"> • Low rail traffic scenario: 4 • High rail traffic scenario: 104 	<ul style="list-style-type: none"> • Low rail traffic scenario: 34 • High rail traffic scenario: 144 	<ul style="list-style-type: none"> • Low rail traffic scenario: 4 • High rail traffic scenario: 104
Average number of accidents at grade crossings per year	<ul style="list-style-type: none"> • Low rail traffic scenario: 0.088 • High rail traffic scenario: 0.153 	<ul style="list-style-type: none"> • Low rail traffic scenario: 0.324 • High rail traffic scenario: 0.559 	<ul style="list-style-type: none"> • Low rail traffic scenario: 0.190 • High rail traffic scenario: 0.331
Average delay at grade crossings in 24-hour period	<ul style="list-style-type: none"> • Low rail traffic scenario: 4.07 minutes • High rail traffic scenario: 11.10 minutes 	<ul style="list-style-type: none"> • Low rail traffic scenario: 7.67 minutes • High rail traffic scenario: 20.89 minutes 	<ul style="list-style-type: none"> • Low rail traffic scenario: 3.99 minutes • High rail traffic scenario: 10.88 minutes
Rail Operations Safety			
Predicted rail accident (collisions and derailments) frequency	0.20 to 0.56 accident per year	0.24 to 0.72 accident per year	0.22 to 0.60 accident per year
Water Resources			
Temporary surface water impacts	<ul style="list-style-type: none"> • Perennial stream: 15.4 acres • Intermittent stream: 0.2 acre • Ephemeral stream: 8.6 acres • Canal/ditch: 1.3 acres • Pond: 1.0 acre • Playa: <0.1 acre 	<ul style="list-style-type: none"> • Perennial stream: 6.5 acres • Intermittent stream: 28.1 acres • Ephemeral stream: 24.7 acres • Canal/ditch: 1.1 acres • Pond: 4.6 acre • Playa: 1.2 acre 	<ul style="list-style-type: none"> • Perennial stream: 16.4 acres • Intermittent stream: 0.2 acre • Ephemeral stream: 15.7 acres • Canal/ditch: 1.3 acres • Pond: 0.9 acre • Playa: <0.1 acre
Permanent surface water impacts	<ul style="list-style-type: none"> • Perennial stream: 6.3 acres • Intermittent stream: 0.2 acre • Ephemeral stream: 4.1 acres • Canal/ditch: 0.9 acre • Pond: 1.0 acre • Playa: 0.1 acre 	<ul style="list-style-type: none"> • Perennial stream: 3.0 acres • Intermittent stream: 30.4 acres • Ephemeral stream: 23.5 acres • Canal/ditch: 0.3 acre • Pond: 3.3 acres • Playa: 0.8 acre 	<ul style="list-style-type: none"> • Perennial stream: 5.6 acres • Intermittent stream: 0.2 acre • Ephemeral stream: 6.4 acres • Canal/ditch: 0.9 acre • Pond: 0.4 acre • Playa: 0.1 acre

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Stream realignments	59 realignments	17 realignments	55 realignments
Section 303(d) Impaired Assessment Unit impacts	2,660.0 acres	7,089.6 acres	2,866.2 acres
Accidental spills of hazardous materials	Depends on train accident or derailment occurrence and severity, but expected to be minimized with mitigation	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Temporary floodplain impacts	0.8 acre	1.7 acres	20.2 acres
Permanent floodplain impacts	0.1 acre	0.2 acre	5.9 acres
Temporary wetland impacts	13.2 acres	16.3 acres	11.2 acres
Permanent wetland impacts	7.0 acres	6.5 acres	3.6 acres
Temporary groundwater wells and springs impacts	<ul style="list-style-type: none"> • Groundwater wells: 6 • Springs: 7 	<ul style="list-style-type: none"> • Groundwater wells: 4 • Springs: 9 	<ul style="list-style-type: none"> • Groundwater wells: 2 • Springs: 4
Permanent groundwater wells and springs impacts	<ul style="list-style-type: none"> • Groundwater wells: 2 • Springs: 2 	<ul style="list-style-type: none"> • Groundwater wells: 1 • Springs: 2 	<ul style="list-style-type: none"> • Groundwater wells: 0 • Springs: 2
Water rights	<ul style="list-style-type: none"> • Water rights within the rail line footprint would be discontinued 	<ul style="list-style-type: none"> • Same as Indian Canyon Alternative 	<ul style="list-style-type: none"> • Same as Indian Canyon Alternative
Biological Resources			
Temporary big game <u>crucial</u> habitat impacts ²	4,803.9 <u>3,782.8</u> acres	10,712.64 <u>3,364.6</u> acres	6,342.65 <u>5,504.6</u> acres
Permanent big game <u>crucial</u> habitat impacts ²	3,421.6 <u>2,406.3</u> acres	6,337.6 <u>2,367.9</u> acres	3,762.8 <u>2,723.5</u> acres
<u>Temporary big game substantial habitat impacts²</u>	<u>1,837.5 acres</u>	<u>7,595.6 acres</u>	<u>2,144.0 acres</u>
<u>Permanent big game substantial habitat impacts²</u>	<u>1,015.5 acres</u>	<u>3,969.8 acres</u>	<u>1,039.3 acres</u>

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
The largest percent removal of big game crucial habitat in UDWR management unit for any species in any management unit	≤0.38	≤0.97	≤0.59
Number of Big Game Movement Corridor Crossings	36 (6 low importance, 15 medium importance, 15 high importance)	31 (1 low importance, 9 medium importance, 21 high importance)	34 (6 low importance, 15 medium importance, 13 high importance)
Fish habitat degradation	Fewest impacts on fish habitat due to fewest number of surface waters crossed and fewest number of crossing structures	Greatest impacts on fish habitat due to greatest number of surface waters crossed and greatest number of crossing structures	Impacts on fish habitat due to surface water crossings and crossing structures
Temporary vegetation community impacts	2,467.8 acres	5,095.7 acres	3,087.9 acres
Permanent vegetation community impacts	1,340.5 acres	2,559.9 acres	1,430.5 acres
Temporary riparian vegetation impacts	57.1 acres	40.0 acres	54.0 acres
Permanent riparian vegetation impacts	36.5 acres	22.6 acres	27.6 acres
Temporary federally listed plant species habitat impacts	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 46.0 acres • Barneby ridge-cress white shale habitat: 5.4 acres • Pariette cactus: 364.0 acres • Uintah Basin hookless cactus: 364.0 acres • Ute’s ladies-tresses: 2.8 acres 	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 0 acre • Barneby ridge-cress white shale habitat: 0 acre • Pariette cactus: 396.5 acres • Uintah Basin hookless cactus: 396.5 acres • Ute’s ladies-tresses: 0.1 acres 	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 97.3 acres • Barneby ridge-cress white shale habitat: 14.1 acres • Pariette cactus: 364.0 acres • Uintah Basin hookless cactus: 364.0 acres • Ute’s ladies-tresses: 2.7 acres
Permanent federally listed plant species habitat impacts	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 20.0 acres • Barneby ridge-cress white shale habitat: 3.4 acres • Pariette cactus: 140.7 acres • Uintah Basin hookless cactus: 140.7 acres • Ute’s ladies-tresses: 1.5 acres 	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 0 acres • Barneby ridge-cress white shale habitat: 0 acres • Pariette cactus: 153.5 acres • Uintah Basin hookless cactus: 153.5 acres • Ute’s ladies-tresses: <0.1 acre 	<ul style="list-style-type: none"> • Barneby ridge-cress Pinyon-juniper habitat: 34.3 acres • Barneby ridge-cress white shale habitat: 6.6 acres • Pariette cactus: 140.7 acres • Uintah Basin hookless cactus: 140.7 acres • Ute’s ladies-tresses: 1.5 acres

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Temporary Mexican Spotted Owl habitat impacts	865.8 acres	3,535.1 acres	1,531.7 acres
Permanent Mexican Spotted Owl habitat impacts	584.8 acres	1,856.3 acres	777.8 acres
Temporary greater sage-grouse habitat impacts	<ul style="list-style-type: none"> • UDWR-defined: 459.8 acres • BLM-defined: 544.0 acres 	<ul style="list-style-type: none"> • UDWR-defined: 459.8 acres • BLM-defined: 588.0 acres 	<ul style="list-style-type: none"> • UDWR-defined: 1,123.6 acres • BLM-defined: 1,047.0 acres
Permanent greater sage-grouse habitat impacts	<ul style="list-style-type: none"> • UDWR-defined: 294.5 acres • BLM-defined: 360.3 acres 	<ul style="list-style-type: none"> • UDWR-defined: 294.5 acres • BLM-defined: 328.3 acres 	<ul style="list-style-type: none"> • UDWR-defined: 482.8 acres • BLM-defined: 486.4 acres
Train noise impacts on at five closest greater sage-grouse leks	37–79 dBA	37–79 dBA	49–64 dBA
Geology, Soils, Seismic Hazards, and Hazardous Waste Sites			
Distance of the proposed rail line that would cross unstable geologic units	21 miles	54 miles	18 miles
Area of soil disturbance	1,340 acres	2,560 acres	1,431 acres
Impacts on hazardous waste sites	None	None	None
Surface fault rupture and seismic ground shaking	Possibility for seismic movement with the potential to cause landslides, but expected to be minimized with mitigation	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Noise and Vibration			
Number of receptors adversely affected by construction-related noise	0	0	0
Number of receptors adversely affected by construction-related vibration	0	0	0

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Number of receptors adversely affected by operations-related noise	6	1	2
Number of receptors adversely affected by operations-related vibration	0	0	0
Air Quality			
Construction-related criteria pollutant emissions	<ul style="list-style-type: none"> • CO: 917 tons • NOx: 512 tons • PM10: 779 tons • PM2.5: 228 tons • SO₂: 2 tons • VOCs: 94 tons 	<ul style="list-style-type: none"> • CO: 1,541 tons • NOx: 649 tons • PM10: 1,075 tons • PM2.5: 299 tons • SO₂: 2 tons • VOCs: 146 tons 	<ul style="list-style-type: none"> • CO: 992 tons • NOx: 598 tons • PM10: 880 tons • PM2.5: 281 tons • SO₂: 2 tons • VOCs: 103 tons
Operations-related criteria pollutant emissions	<ul style="list-style-type: none"> • Low rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 136 tons/year ○ NOx: 343 tons/year ○ PM10: 10 tons/year ○ PM2.5: 7 tons/year ○ SO₂: 0.4 tons/year ○ VOCs: 13 tons/year • High rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 373 tons/year ○ NOx: 969 tons/year ○ PM10: 29 tons/year ○ PM2.5: 21 tons/year ○ SO₂: 1 ton/year ○ VOCs: 36 tons/year 	<ul style="list-style-type: none"> • Low rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 176 tons/year ○ NOx: 413 tons/year ○ PM10: 13 tons/year ○ PM2.5: 9 tons/year ○ SO₂: 0.5 tons/year ○ VOCs: 18 tons/year • High rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 479 tons/year ○ NOx: 1,162 tons/year ○ PM10: 35 tons/year ○ PM2.5: 26 tons/year ○ SO₂: 2 ton/year ○ VOCs: 48 tons/year 	<ul style="list-style-type: none"> • Low rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 147 tons/year ○ NOx: 374 tons/year ○ PM10: 11 tons/year ○ PM2.5: 8 tons/year ○ SO₂: 0.4 tons/year ○ VOCs: 14 tons/year • High rail traffic scenario: <ul style="list-style-type: none"> ○ CO: 405 tons/year ○ NOx: 1,056 tons/year ○ PM10: 32 tons/year ○ PM2.5: 23 tons/year ○ SO₂: 1 ton/year ○ VOCs: 40 tons/year
Concentrations in comparison to the NAAQS	<p>All concentrations would be less than the NAAQS at all modeled locations. 1-hour NO₂ concentration could exceed the NAAQS at one location south of Myton under certain conditions. This outcome is unlikely to occur and would not impact sensitive receptors.</p>	<p>Same as Indian Canyon Alternative. All concentrations would be less than the NAAQS at all modeled locations.</p>	<p>Same as Indian Canyon Alternative. 1-hour NO₂ concentration could exceed the NAAQS at one location south of Myton under certain conditions. This outcome is unlikely to occur and would not impact sensitive receptors.</p>

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Energy			
Electricity consumption and distribution	Existing electricity distribution system would be adequate for construction and operations	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Construction-related fuel (gasoline and diesel) consumption	19,859,000 gallons	27,803,000 gallons	23,217,000 gallons
Operations-related fuel (gasoline and diesel) consumption	<ul style="list-style-type: none"> Low rail traffic scenario: 3,955,941 gallons/year High rail traffic scenario: 11,696,171 gallons/year 	<ul style="list-style-type: none"> Low rail traffic scenario: 5,206,157 gallons/year High rail traffic scenario: 15,127,985 gallons/year 	<ul style="list-style-type: none"> Low rail traffic scenario: 4,341,206 gallons/year High rail traffic scenario: 12,765,347 gallons/year
Impacts on utilities (pipelines and transmission lines)	114 utilities would be crossed; some but impacts on service would be avoided or minimized with mitigation but some portions of existing pipelines may need to be relocated	6 utilities would be crossed but impacts on service would be avoided or minimized with mitigation	136 utilities would be crossed; some but impacts on service would be avoided or minimized with mitigation but some portions of existing pipelines may need to be relocated
Number of oil and gas wells adversely affected by construction	4	11	2
Cultural Resources			
Sensitive cultural resources physically affected	14	12	13
Sensitive cultural resources affected by change in setting	2	7	3
Paleontological Resources			
PFYC acreage in the project footprint	<ul style="list-style-type: none"> PFYC 5: 787 acres PFYC 4: 879 acres PFYC 3: 628 acres 	<ul style="list-style-type: none"> PFYC 5: 926 acres PFYC 4: 4,901 acres PFYC 3: 628 acres 	<ul style="list-style-type: none"> PFYC 5: 853 acres PFYC 4: 977 acres PFYC 3: 1,370 acres
Scientifically important fossil localities in the project footprint	26	1	26

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Land Use and Recreation			
Temporary disturbance by land ownership	<ul style="list-style-type: none"> • BLM: 73 acres • SITLA: 285 acres • Tribal: 257 acres • UDOT: 4 acres • Forest Service: 234 acres • Private: 1,614 acres 	<ul style="list-style-type: none"> • BLM: 3,246 acres • SITLA: 554 acres • Tribal: 0 acres • UDOT: 1 acre • Forest Service: 0 acres • Private: 1,293 acres 	<ul style="list-style-type: none"> • BLM: 0 acres • SITLA: 283 acres • Tribal: 255 acres • UDOT: 4 acres • Forest Service: 234 acres • Private: 2,312 acres
Permanent disturbance by land ownership	<ul style="list-style-type: none"> • BLM: 46 acres • SITLA: 158 acres • Tribal: 121 acres • UDOT: <1 acre • Forest Service: 167 acres • Private: 847 acres 	<ul style="list-style-type: none"> • BLM: 1,571 acres • SITLA: 327 acres • Tribal: 0 acres • UDOT: 0 acre • Forest Service: 0 acres • Private: 662 acres 	<ul style="list-style-type: none"> • BLM: 0 acres • SITLA: 103 acres • Tribal: 118 acres • UDOT: 0 acre • Forest Service: 167 acres • Private: 1,042 acres
Temporary disturbance of agricultural land in the study area	<ul style="list-style-type: none"> • Irrigated cropland: 145 acres • Prime farmland: 56 acres 	<ul style="list-style-type: none"> • Irrigated cropland: 35 acres • Prime farmland: 15 acres 	<ul style="list-style-type: none"> • Irrigated cropland: 145 acres • Prime farmland: 56 acres
Permanent disturbance of agricultural land in the study area	<ul style="list-style-type: none"> • Irrigated cropland: 92 acres • Prime farmland: 6 acres 	<ul style="list-style-type: none"> • Irrigated cropland: 6 acres • Prime farmland: 4 acres 	<ul style="list-style-type: none"> • Irrigated cropland: 92 acres • Prime farmland: 6 acres
Temporary loss of AUMs	50	176	73
Permanent loss of AUMs	34	88	37
Special designations	Forest Service Inventoried Roadless Areas	Route would cross BLM's Lears Canyon ACEC, Nine Mile Canyon ACEC, two Lands with Wilderness Characteristics areas, and the Nine Mile SRMA	Same as Indian Canyon Alternative
BLM Land Use Plan Amendment Required	Yes	Yes	No
Forest Service Land Use Plan Amendment Required	Yes	No	Yes
Disturbance within Forest Service Inventoried Roadless Areas	394 acres	0 acres	394 acres

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Cooperative Wildlife Management Units impacts	816 acres	466 acres	1,472 acres
Conservation Easements affected	1	0	1
Visual Resources			
RKOP scenic quality ratings on BLM-administered lands	No change in scenic quality rating	Same as Indian Canyon Alternative	Alternative does not cross BLM-administered land
Visual quality ratings on other federal, state, tribal, and private land	<ul style="list-style-type: none"> • No change in rating at 1 RKOP • -1 reduced rating at 2 RKOPs • -2 reduced rating at 23 RKOPs • -3 reduced rating at 1 RKOP • -4 reduced rating at 1 RKOP 	<ul style="list-style-type: none"> • -1 reduced rating at 1 RKOP • -2 reduced rating at 12 RKOPs • -4 reduced rating at 1 RKOP 	<ul style="list-style-type: none"> • -1 reduced rating at 23 RKOPs • -2 reduced rating at 32 RKOPs • -3 reduced rating at 1 RKOP
Sensitive viewscapes	<ul style="list-style-type: none"> • Ashley National Forest • BLM lands • Tribal trust lands • Indian Canyon Scenic Byway • Reservation Ridge Scenic Backway 	<ul style="list-style-type: none"> • Ashley National Forest • BLM lands • Reservation Ridge Scenic Backway 	Same as Indian Canyon Alternative
Infrastructure changes	<ul style="list-style-type: none"> • Install 4 new towers • Install 6 new sidings • Remove 3 nonresidential structures 	<ul style="list-style-type: none"> • Install 4 new towers • Install 3 new sidings • Remove 4 residences • Remove 1 other structure 	<ul style="list-style-type: none"> • Install 4 new towers • Install 9 new sidings • Remove 1 residence • Remove 5 other structures
Socioeconomics			
Land acquisitions required	3,808.2 acres	7,655.3 acres	4,518.3 acres
Impacts on private property	Greatest adverse impact on smaller private property owners because it would cross the greatest number of smaller-subdivided properties in the Argyle Canyon and Duchesne Mini-Ranches areas of Duchesne County	Route would affect the smallest area of private property, but would displace the largest number of residences	Route would affect the largest area of private property across the three Action Alternatives and would primarily affect larger property owners and ranching and farming operations
Annual employment, labor income, and value added impacts from construction	\$290.6 million	\$351.3 million	\$311.8 million

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Annual Employment (direct, indirect, induced) during Operations	<ul style="list-style-type: none"> Low rail traffic scenario: 170 jobs High rail traffic scenario: 420 jobs 	<ul style="list-style-type: none"> Low rail traffic scenario: 220 jobs High rail traffic scenario: 530 jobs 	<ul style="list-style-type: none"> Low rail traffic scenario: 190 jobs High rail traffic scenario: 470 jobs
Annual labor income from operation	<ul style="list-style-type: none"> Low rail traffic scenario: \$8.3 million High rail traffic scenario: \$23.3 million 	<ul style="list-style-type: none"> Low rail traffic scenario: \$10.4 million High rail traffic scenario: \$29.0 million 	<ul style="list-style-type: none"> Low rail traffic scenario: \$9.3 million High rail traffic scenario: \$25.8 million
Operations-related state tax revenue	<ul style="list-style-type: none"> Low rail traffic scenario: \$0.4–0.5 million High rail traffic scenario: \$1.1–1.4 million 	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Environmental Justice			
Air Quality, Water Resources, Land Use, Socioeconomics, Vehicle Safety and Delay, Rail Operations Safety, Noise	No disproportionately high and adverse impacts on minority or low-income populations	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Cultural resources	Impacts may disproportionately affect the Ute Indian Tribe but would be mitigated and would not be high and adverse	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Biological resources	Effects on suitable habitat for the Pariette cactus and Uinta Basin hookless cactus would represent a disproportionately high and adverse effect on the Ute Indian Tribe	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Downline			
Delay at downline at-grade road crossings	Increase delay up to 9.84 seconds per vehicle	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Predicted downline rail accident frequency at grade crossings	Increase of 0.001 to 0.024 accident per year	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative
Noise level increases at downline receptors	0.4 dB to 6.0 dB	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative

Impact	Action Alternative		
	Indian Canyon	Wells Draw	Whitmore Park
Maximum downline criteria pollutant emissions	<ul style="list-style-type: none"> CO: 1,048.35^{1,803.68} tons/year NOx: 2,913.84^{5,013.24} tons/year PM10: 63.00^{108.39} tons/year PM2.5: 61.11^{1405.14} tons/year SO₂: 3.70^{6.36} tons/year VOC: 103.66^{178.34} tons/year 	Same as Indian Canyon Alternative	Same as Indian Canyon Alternative

Notes:

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

^b Notably, there is significant overlap of big game habitat for the different big game species (see Appendix G, *Biological Resources Figures, for big game habitats along the Action Alternatives*), and the permanent and temporary habitat impacts affect multiple big game species in those areas of habitat overlap.

VMT = vehicle miles traveled; UDWR = Utah Division of Wildlife Resources; BLM = U.S. Department of the Interior, Bureau of Land Management; dBA =A-weighted decibels; dB = decibels; CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter 10 microns or less in diameter; PM2.5 = particulate matter 2.5 microns or less in diameter; SO₂ = sulfur dioxide; VOCs = volatile organic compounds; NO₂ = nitrogen dioxide; NAAQS = National Ambient Air Quality Standards; PFYC = Potential Fossil Yield Classification; AUM = animal unit month; SITLA = School and Institutional Trust Lands Administration; UDOT = Utah Department of Transportation; ACEC = Area of Critical Environmental Concern; SRMA = Special Recreation Management Area; Forest Service = U.S. Forest Service; RKOP = rendered key observation point

S.6 Mitigation

The Coalition has proposed 56 voluntary mitigation measures to address the environmental impacts of construction and operation of the proposed rail line. In addition to the Coalition's voluntary mitigation measures, OEA is ~~preliminarily~~ recommending an additional ~~9173~~ mitigation measures. OEA ~~is making~~~~will make~~ its final recommendations on mitigation to the Board in ~~this~~~~the~~ Final EIS after considering all public comments on ~~the~~~~this~~ Draft EIS. Chapter 4, *Mitigation*, presents the Coalition's voluntary mitigation measures and OEA's additional recommended mitigation measures.

S.7 Public Involvement

S.7.1 Online Public Meetings

OEA ~~hosted~~~~is hosting~~ six online public meetings on the Draft EIS. During these meetings OEA ~~will~~ provided project information and accepted oral comments on the Draft EIS. The online public meetings ~~were~~~~will be~~ held at the following date and times; all times are in Mountain Standard Time (MST).

- Monday, November 16, 2020, 2:00–4:00 p.m.
- Wednesday, November 18, 2020, 9:00–11:00 a.m.
- Thursday, November 19, 2020, 6:00–8:00 p.m.
- Monday, November 30, 2020, 6:00–8:00 p.m.
- Tuesday, December 1, 2020, 2:00–4:00 p.m.
- Thursday, December 3, 2020, 6:00–8:00 p.m.

~~Commenters wishing to make oral comments must sign up in advance to do so. The project website (www.uintabasinrailwayeis.com) provides meeting information and sign-up instructions.~~

S.7.2 Request for Comments on Draft EIS Public Comment Period for the Draft EIS

OEA request~~ed~~~~s~~ and encourage~~d~~~~s~~ the public and interested parties to submit comments on all aspects of ~~the~~~~this~~ Draft EIS. All comments on the Draft EIS ~~were~~~~must be~~ submitted within the published comment period, which ~~was announced to~~~~will~~ close on **December 14, 2020**, 45 days after the Notice of Availability of the Draft EIS ~~was~~~~is~~ published in the Federal Register. On December 2, 2020, OEA announced a 45-day extension of the comment period, requesting that comments be submitted by January 28, 2021. On January 28, 2021, OEA announced a second comment period extension of 15 days until February 12, 2021. When submitting comments on the Draft EIS, the Board encourage~~d~~~~s~~ commenters to be as specific as possible and substantiate concerns and recommendations. OEA asked that all commenters~~Please~~ refer to Docket No. FD 36284 in all correspondence about this case addressed to the Board, including all comments submitted on the Draft EIS.

OEA ~~accepted~~~~is accepting~~ oral comments during online public meetings, written comments submitted electronically through the project website, and written comments received through the U.S. mail. OEA ~~gave~~~~will give~~ oral, electronically submitted, and mailed comments the same consideration so commenters ~~did~~ not have to submit the same comments by more than one method.

- OEA ~~accepted~~~~will accept~~ oral comments at any of the above-noted public meetings. Commenters wishing to make oral comments ~~were asked to~~~~must~~ sign up in advance to do so. The project website (www.uintabasinrailwayeis.com) provide~~d~~s meeting information and sign-up instructions.
- Comments on the Draft EIS ~~could~~~~may~~ be submitted electronically on the Board-sponsored website (www.uintabasinrailwayeis.com).
- Written comments on the Draft EIS ~~could~~~~may~~ be mailed to the following address.

Joshua Wayland, PhD
Surface Transportation Board
c/o ICF
9300 Lee Highway
Fairfax, VA 22031
Attention: Environmental filing, Docket No. FD 36284

Following the close of the comment period on the Draft EIS ~~on February 12, 2021~~, OEA ~~issued~~~~will issue~~ ~~at~~~~this~~ Final EIS that considers and responds to all substantive comments received on the Draft EIS. ~~Changes made to the Draft EIS appear in blue in the Final EIS.~~ The Board will ~~now~~~~then~~ issue a final decision based on the Draft EIS and Final EIS and all public and agency comments in the public record for this proceeding. The Board's final decision will address the transportation merits of the proposed project and the entire environmental record. That final decision will take one of three actions: authorize the Coalition's proposal, deny it, or authorize it with mitigation conditions, including environmental conditions.