
From: Wayland, Joshua
Sent: Friday, April 12, 2019 2:37 PM
To: Keller, Kevin
Cc: Moelter, Chris; Diller, Elizabeth
Subject: Uinta Basin Railway--OEA comments on draft field methodologies
Attachments: UBRY DRAFT Biological Resources Methodology OEA Comments.pdf; UBRY DRAFT Cultural Resources Reconnaissance Methodology OEA Comments.pdf

Hi Kevin,

I have attached OEA's comments on the draft Biological Resources Methodology and Cultural Resources Reconnaissance Methodology for the Uinta Basin Railway project. Please let me know if you have any questions or concerns.

Best,
Josh

Joshua Wayland, PhD
Environmental Protection Specialist
Office of Environmental Analysis
Surface Transportation Board
202.245.0330



Uinta Basin Railway: Proposed Draft Reconnaissance-Level Biological Resources Field Methodology

Background

This plan outlines the proposed methodology for the collection of the baseline (existing condition) biological resources reconnaissance data for the three proposed railway routes (Indian Canyon, Wells Draw, and Craig) identified by Seven County Infrastructure Coalition (Coalition) for the proposed Uinta Basin Railway.

The Surface Transportation Board (STB) will be the lead agency to prepare an Environmental Impact Statement (EIS). The reconnaissance work that would be conducted under this plan will support additional biological surveys, if required, for the analysis in the EIS.

HDR plans to conduct reconnaissance-level field surveys for biological resources along the three proposed routes, see Figure 1, within the 2000-foot route corridor. In consultation with the STB, HDR and the Coalition determined that the proposed routes would occur within a 2000-foot corridor, designated as 1000-feet on each side of the nominal centerline of the railway, and that width would be appropriate at this time due to the current level of engineering analysis. As more detailed engineering analyses (including aerial photogrammetry, geotechnical investigations and tunnel evaluations) occur, it is anticipated the railway route centerline may shift within this designated 2000-foot wide corridor. If for some reason, the more detailed engineering design requires placing the railway route centerline inclusive of its permanent embankment, cut, drainage structures or other permanent features, outside of the 2000-foot wide corridor, then additional field resources will be mobilized to study the added route corridor width.

Based on the February 15, 2019, railway routes developed by the Coalition, the total route mileage for all three proposed routes is about 370 miles; however, there is an estimated 310 unique miles, after deducting overlapping route segments and deducting for potential reuse of the existing DPR rail corridor on one or more of the routes. Current engineering analysis indicates the new railway would tie directly to and use the existing DPR railroad infrastructure, with no modifications to the DPR railroad embankment or waterway crossings required.

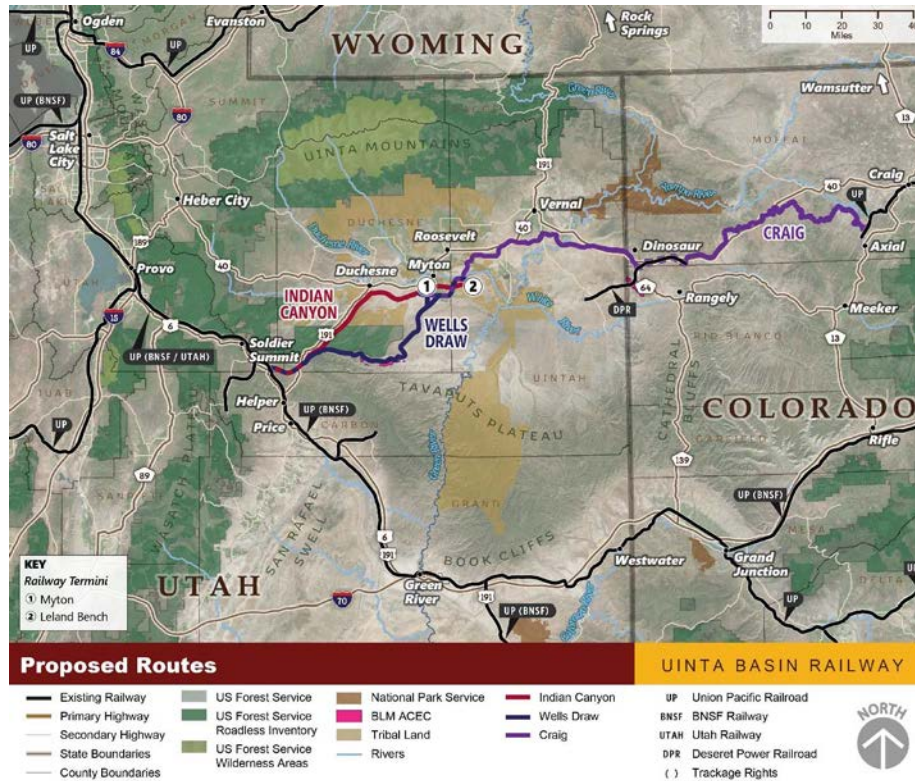
The reconnaissance-level field surveys for biological resources will be conducted concurrently with surveys to delineate wetlands and other aquatic resources. Review of available data, coordination with resource agencies and Federal land managers, and scoping comments from the EIS will help guide biological surveys for the project. The reconnaissance-level field surveys do not include species-specific surveys or other agency protocol surveys that may be conducted later.

Commented [WJ1]: Please add language specifying that this plan would support additional biological surveys for all alternatives developed during the NEPA process, including any additional alternative identified during scoping.

Commented [WJ2]: Please specify sources of available data, such as vegetation maps, aerial imagery, etc.

Commented [WJ3]: Please provide any available information regarding what species-specific surveys and agency-specific protocols that would be deferred until later in the process. Also indicate whether the data collected under this plan could be sufficient to identify habitat suitability for both federal and non-federal special status species.

Figure 1. Proposed Route Alignments



Reconnaissance-level Methodology for Biological Resources

HDR proposes to conduct field work to characterize biological resources for the three proposed routes, as shown in Figure 1, above, pending property access permissions. If property access is not granted, biological characterization will be based on aquatic resources and desktop analyses. The field work entails reconnaissance-level surveys to characterize general vegetation communities and to help assess habitat suitability for special-status species in the route survey corridors. In this document, special-status species refer to species federally classified threatened, endangered, proposed, and candidate species, and other sensitive species identified for the project.

Reconnaissance-level Survey Methods

Reconnaissance-level surveys to characterize general vegetation communities and assess habitat suitability for special-status species identified in the project corridors will occur in concert with efforts to delineate wetlands and other aquatic resources in the project corridors.

Commented [WJ4]: Please describe the desktop analysis that would be conducted to address gaps in the survey coverage (i.e. GIS, extrapolation from accessible areas, interpretation of aerial imagery, etc.). Also specify the source of aquatic resources data that could be used.

Commented [WJ5]: Please clarify what is meant by 'sensitive species' in this document. Would this include species designated by the BLM? Would bald and golden eagles (under the Bald and Gold Eagle Protection Act) be included?



Biologists will survey the project corridors stopping every 300 meters to take site photos in the four cardinal directions and recording vegetation at the site, noting the percentages of the dominant plant species. Biologists may map the boundaries of distinct vegetation communities along the route and will stop to take photos and record important vegetation communities if there is noticeable change between the 300 meter intervals. If a given interval location is inaccessible, a nearby representative location will be selected. A combination of desktop and on-site mapping will be used to generate general vegetation community maps for the project corridors.

Commented [WJ6]: Please specify how 'important vegetation communities' would be defined in the context of this survey.

Biologists will also evaluate whether portions of the project corridors provide suitable habitat for special-status species through available data review and agency coordination. Available data sources include:

Commented [WJ7]: Please include BLM and Forest Service data to the list below, as these agencies may have information pertaining to sensitive species.

- U.S. Fish and Wildlife Service
 - o Environmental Conservation Online System-Information, Planning, and Conservation System (ECOS-IPaC)
 - o Endangered Species Database
 - o Utah Field Office Website
- Utah Division of Wildlife Resources
- Colorado Parks and Wildlife
- Utah Natural Heritage Program
- Colorado Natural Heritage Program

Through desktop review including GIS analysis, HDR will preliminarily identify areas within project corridors that might provide suitable habitat for special-status species. Table 1 provides a summary of federally threatened, endangered, or candidate species identified by ECOS-IPaC website as federally listed species that could possibly occurring in project corridors or otherwise be affected by the project.

Table 1. Federally Threatened, Endangered, or Candidate Species Possibly Occurring in Project Corridors

Common Name	Scientific Name	Federal Status	Project Corridor		
			Indian Canyon	Craig	Wells Draw
Birds					
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Threatened	X	X	X
Western yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened	X	X	X
Fish					
Bonytail Chub	<i>Gila elegans</i>	Endangered	X	X	X
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	Endangered	X	X	X
Humpback Chub	<i>Gila cypha</i>	Endangered	X	X	X
June Sucker	<i>Chasmistes liorus</i>	Endangered	X		X
Razorback Sucker	<i>Xyrauchen texanus</i>	Endangered	X	X	X



Table 1. Federal Threatened, Endangered, or Candidate Species Possibly Occurring in Project Corridors

			Project Corridor		
Common Name	Scientific Name	Federal Status	Indian Canyon	Craig	Wells Draw
Mammals					
Black-footed Ferret	<i>Mustela nigripes</i>	Experimental		X	
Canada lynx	<i>Lynx canadensis</i>	Threatened	X	X	X
Plants					
Barneby Ridge-cress	<i>Lepidium barnebyanum</i>	Endangered	X		X
Clay Phacelia	<i>Phacelia argillacea</i>	Endangered	X		X
Jones Cycladenia	<i>Cycladenia humilis</i> var. <i>jonesii</i>	Threatened	X		X
Pariette Cactus	<i>Sclerocactus brevispinus</i>	Threatened	X	X	X
Uinta Basin Hookless Cactus	<i>Sclerocactus wetlandicus</i>	Threatened	X	X	X
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened	X	X	X

Source: USFWS ECOS-IPaC website, accessed 4/2/19

Certain species may be eliminated from further consideration without reconnaissance-level surveys because ECOS-IPaC queries and other data sources generally list species for each county. For example, June sucker is included by ECOS-IPaC for the Indian Canyon and Wells Draw project corridors because a portions of these project corridors are located within Utah County. However, June sucker is endemic to Utah Lake, which is located over 40 miles west of the western terminus of the Indian Canyon route corridor and it does not share any drainage basins with project corridors. Additionally, suitable habitat boundaries for some special-status species will not be evaluated in the field because suitable habitat boundaries or known species distribution have been evaluated and determined by resource agencies. For special-status species lacking definitively mapped suitable habitat boundaries, biologists will evaluate potential areas during field surveys and document whether they appear to provide suitable habitat. Biologists will also record the location of observations such as potential raptor nests and special-status species.

Based on the planned schedule to begin reconnaissance-level surveys with delineation fieldwork in April 2019, HDR recognizes that additional information might be provided after surveys begin, including agency comments and guidance pertaining to special-status species considerations for the project. New information or revised project data may result in identifying additional areas as potentially suitable for special-status species or in revising certain habitat suitability characteristics. Portions of project corridors affected by such changes would likely need to be revisited by biologists to complete habitat suitability evaluations.

Commented [WJ8]: Please clarify what information exists and for which species, including the source and type of data.



Field Data Collection

Biologists will collect field data during reconnaissance-level surveys using an iPad that is linked to a global positioning system (GPS) unit with sub-meter accuracy. A customized application will enable review of base maps, habitat and vegetation community layers, and collection of points, lines, and polygons integrated with site photos. The following data dictionary will be employed for data collection points:

- 300-meter interval
 - o Interval ID
 - o Select vegetation community
 - o Confirm / Revise community polygon
 - o Select dominant species
 - Select cover categories
 - o Photos (four cardinal directions)
 - o Notes
- Additional Vegetation Community Point
 - o Select vegetation community
 - o Confirm / Revise community polygon
 - o Select dominant species
 - Select cover categories
 - o Photos
 - o Notes
- Habitat Suitability (special-status species)
 - o Select species
 - Review suitability criteria
 - o Site suitable? (Yes/No)
 - o Photos
 - o Notes
 - explain why/why not suitable
 - describe extent / map edits
- Wildlife/Rare Plant Observation
 - o Species / Avian Nest
 - o Photos
 - o Notes

Commented [WJ9]: Please clarify whether the habitat/vegetation community descriptions will be based on regional ecological systems (e.g. Rolling Sagebrush Steppe, Uinta Subalpine Forest, etc.) or vegetation communities (National Land Cover Database classifications, etc.) described in the existing literature or a survey-specific system.

Commented [WJ10]: Please clarify the term 'rare plant' here. Does this refer only to federally listed species?

TECHNICAL MEMORANDUM

To: Kevin Keller
HDR

From: Matt Edwards, Principal Investigator

Date: March 22, 2019

Re: **Uinta Basin Railway: Draft Cultural Resources Field Reconnaissance Methodology / SWCA Project No. 53323**

BACKGROUND

This plan outlines SWCA Environmental Consultant's (SWCA) proposed methodology for collecting comparable affected environment data pertaining to cultural resources for three alternative routes (Indian Canyon, Wells Draw and Craig; Figure 1) proposed by the Seven County Infrastructure Coalition (Coalition) for the Uinta Basin Railway project (Project) to be evaluated by the Surface Transportation Board (STB) in an Environmental Impact Statement (EIS). If additional alternatives are identified during the scoping process, these methods will be applied to those alternatives as well. The methodology described here for **archaeology** is intended to support analysis in the EIS only and alone does not constitute adequate identification for compliance with Section 106 of the National Historic Preservation Act, which will be required for final project permitting once an alternative is selected. The proposed approach for **architectural history** will meet these standards.

Based on the proposed route alternatives provided to SWCA on February 15, 2019, the **total area of potential effect (APE)** for the project at this point is composed of about 433 linear miles and 204,000 acres. The Indian Canyon and Wells Draw alternatives are entirely within Utah but the Craig alternative extends into Colorado.

Commented [WJ1]: Please revise this language to specify that the Surface Transportation Board will be the lead federal agency for the purposes of Section 106 review. The Board's Office of Environmental Analysis will be responsible for coordinating with the appropriate State Historic Preservation Officers, Tribal Historic Preservation Officers, other Section 106 consulting parties, and the public to identify historic properties that could be affected by the proposed rail line. The information collected during fieldwork will inform OEA's identification efforts under Section 106 (as well as the analysis in the EIS), but may not be sufficient for either archaeological or architectural resources.

Commented [WJ2]: Please note here that the APE for this project has not been finalized. OEA will develop the APE in consultation with the appropriate SHPOs, THPOs, and other consulting parties during the Section 106 review process. We recommend referencing the "study corridor" rather than the APE here and elsewhere in this document because that area may be different than the final APE.

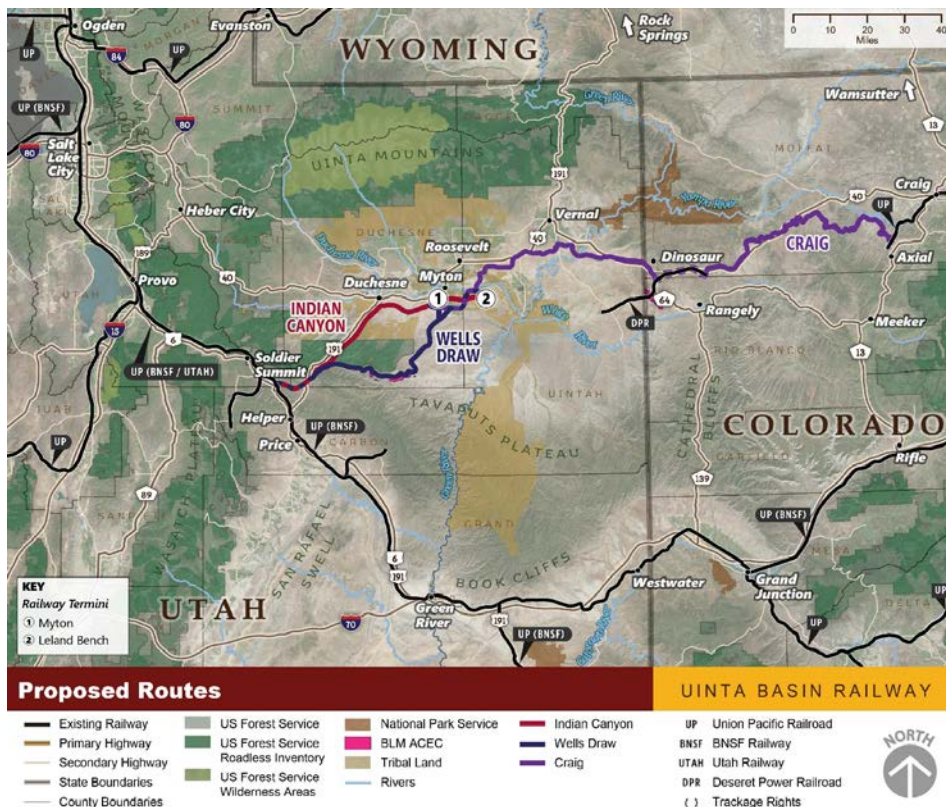


Figure 1. Route Alternatives

Previous Work

In 2014, HDR and SWCA conducted cultural resources assessments for Utah Department of Transportation's (UDOT) Uinta Basin Railroad project. Much of the Indian Canyon alternative proposed by the current Project follows the route evaluated during this previous work. Therefore, the methodology described here is intended to match as closely as possible the approach used during that project so that the three Project alternatives can be fairly compared in the EIS. Although UDOT's project was abandoned prior to publication of an EIS, data from the cultural resources reconnaissance efforts were submitted to the Utah State Historic Preservation Office (SHPO) but were not formally reviewed by them or any of the involved federal agencies.

DESKTOP ANALYSIS

High level consideration for impacts to particularly important cultural resources or areas were included in the development of alternatives being carried forward in the EIS. Additionally, as a first step before performing any fieldwork, SWCA will conduct a formal file search for previous cultural resources

Commented [WJ3]: Please provide a justification for why data collected in 2014 would still adequately represent current conditions in the project area.

studies, archaeological sites, and historic architectural properties within a half-mile buffer of each alternative; this will include an on-line search of the Utah Division of State History (UDSH) database (Preservation Pro) and a request for data from the Colorado Historical Society – Office of Archaeology and Historic Preservation’s Compass system (for the Craig route).

RECONNAISSANCE SURVEYS

Archaeological Resources

SWCA will conduct preliminary, reconnaissance level inventories to support planning and consideration of alternatives in the draft EIS. Thorough, intensive-level archaeological survey can then be conducted of the selected preferred alternative carried forward in the final EIS or stipulated in a programmatic agreement for compliance with Section 106 developed in support of the NEPA record of decision (ROD). To accomplish this, SWCA will conduct field survey using 15 m (20 m in the Colorado portion of the Craig route) transects targeting sample areas within each environmental zone traversed by a given alternative with the goal of evaluating 15% of that alternative’s APE. The result will be a representative sample of archaeological resources allowing for valid comparison of alternatives during the NEPA process. It will provide enough data for such a comparison but will not unnecessarily expend time and money at this stage in the planning process.

All archaeological sites encountered during the reconnaissance-level survey will be documented on Utah Archaeological Site Forms or Colorado Management Data Forms as appropriate, and each site will be evaluated for its eligibility to the NRHP. Previously documented sites located along the survey transects for each alternative will be revisited and updated as necessary to indicate their current condition. Minor adjustments to project alternatives over the course of the EIS may not require supplemental fieldwork if the relative ratio of survey coverage between alternatives is maintained; however, major adjustments that result in disproportionate survey coverage between alternatives are likely to necessitate additional fieldwork. The results of the reconnaissance-level survey will be reported in a summary technical report with accompanying site forms.

Architectural Historical Resources

The project area is comprised almost entirely of rural and undeveloped land. It is anticipated that historic buildings and structures will be identified but that they will be few and widely scattered. Therefore, a selective reconnaissance-level survey (RLS) of historic buildings that are 43 years old or older for the entire length of the proposed alignments will be conducted. An RLS of Indian Canyon was already conducted in 2014 during the UDOT study although this may require updates to include any resources that aged into consideration during the intervening five years.

SWCA will gather information on each property that requires documentation through examination of the exterior of the property, notation on architectural type and style, documentation of alterations that would affect the eligibility of the property for the NRHP, and photographic documentation in accordance with the RLS SOP. A technical report summarizing methods, survey results, and recommendations of NRHP eligibility for each documented property will be prepared upon completion of the RLS.

Commented [WJ4]: Please specify whether the technical reports that will be produced in connection with the reconnaissance surveys will describe the historic context of the surveyed properties and, if so, how that context will be described.

Commented [WJ5]: Please explain in detail the process by which these sample areas will be identified. This may include a description of the predictive models that will be used based on geomorphology and topography. Please also describe any ongoing or anticipated consultation with federal agencies for surveys that would occur on federal lands.

Commented [WJ6]: Please provide a justification for the goal of surveying 15% of the APE. This justification should reference the geomorphological zones that the fieldwork is expected to cover and any relevant differences between those zones in terms of likelihood for encountering archeological resources.

Please also note that the APE for this project has not been finalized. We recommend referring to the study corridor here because this may be different than the final APE.

Commented [WJ7]: Please provide an explanation of how the field methods would support identification of historic landscapes, in addition to individual sites and structures.

Commented [WJ8]: Please provide additional details regarding how the selection will take place. What specific records will be conducted to determine the age of buildings in the project area?

Commented [WJ9]: Please explain how this survey work would be affected if access cannot be obtained to all historic-age structures.

Commented [WJ10]: Please specify whether appropriate state forms will be prepared for each architectural resource as part of the reconnaissance, as is the case for archeological resources. The level survey work should be commensurate across the resource types.