

Wayland, Joshua

From: Keller, Kevin <Kevin.Keller@hdrinc.com>
Sent: Thursday, June 27, 2019 2:49 PM
To: Wayland, Joshua; Diller, Elizabeth
Cc: 10145616_7CountyCoalitionUBR TO1; Robe, Kyle; Klaumann, Anthony; Hemphill, Mark; Brian Barton; mmckee; KKfloyd; M. Fawal
Subject: UBRY DRAFT Utah CR reconnaissance methodology revised_20190625.pdf
Attachments: UBRY DRAFT Utah CR reconnaissance methodology revised_20190625.pdf; UBRY DRAFT Colorado CR reconnaissance methodology_20190625.docx

Josh and Elizabeth,

Attached you will find the revised UTAH cultural resources reconnaissance methodology, dated June 25, 2019. This revision addresses the second round comments received from OEA on June 17. Please note we have revised the title of the document to reflect UTAH only. A sister memorandum for Colorado is also attached to this email.

Let me know if you have other concerns.

Kevin

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TECHNICAL MEMORANDUM

To: Kevin Keller, HDR

From: Mike Cannon, Principal Investigator, SWCA Environmental Consultants

Date: June 24, 2019

Re: **Uinta Basin Railway: Draft Cultural Resources Field Reconnaissance Methodology for Utah / SWCA Project No. 53323 (revised)**

BACKGROUND

This plan outlines SWCA Environmental Consultant's (SWCA) proposed methodology for collecting comparable affected environment data pertaining to cultural resources, in Utah, 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).

The methodology pertains only to non-tribal lands in Utah. The methodology for tribal lands and properties of cultural or religious significance to tribes on non-tribal lands is being developed independently with the Ute Indian Tribe of the Uintah and Ouray Reservation and with other tribes who may choose to consult regarding the project. STB is initiating government-to-government consultation with the following potentially affected tribes:

- Ute Indian Tribe of the Uintah and Ouray Reservation, Utah
- Apache Tribe of Oklahoma
- Eastern Shoshone Tribe of the Wind River Reservation, Wyoming
- Confederated Tribes of the Goshute Reservation, Nevada and Utah
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Hopi Tribe of Arizona
- Navajo Nation, Arizona, New Mexico, and Utah
- Northwestern Band of the Shoshone Nation, Utah
- Paiute Indian Tribe of Utah (Cedar Band of Paiutes, Kanosh Band of Paiutes, Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes)
- Shoshone-Bannock Tribes of the Fort Hall Reservation, Idaho
- Skull Valley Band of Goshute Indians
- White Mesa/Ute Mountain Ute Tribe, Utah and Colorado

Additional interested tribes may be identified during the scoping process.

The methodology for non-tribal lands in Colorado is presented in a separate memorandum and, while similar to the methodology described below, conforms to Colorado State Historic Preservation Office (SHPO) published guidelines for cultural resources fieldwork and reporting. If additional alternatives are identified during the EIS scoping process, the methods described here (and any methods developed

specifically for tribal lands and properties of tribal significance) will be applied to those alternatives as well.

STB will be the lead federal agency for the purposes of review under Section 106 of the National Historic Preservation Act. STB's Office of Environmental Analysis (OEA) will be responsible for coordinating with the appropriate SHPOs, Tribal Historic Preservation Officers (THPOs), 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 it may not be sufficient for either archaeological or architectural resources. More specifically, the methodology described here for archaeology is intended to support analysis in the EIS only and alone will not constitute adequate identification for compliance with Section 106, which will be required for final project permitting once an alternative is selected.

Based on the proposed route alternatives provided to SWCA on April 24, 2019, the study corridor for the EIS is composed of about 93,735 acres, approximately 71,971 acres of which are in Utah. The Indian Canyon and Wells Draw routes are entirely within Utah, while the Craig route extends into Colorado. The area of potential effect (APE) for the 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.

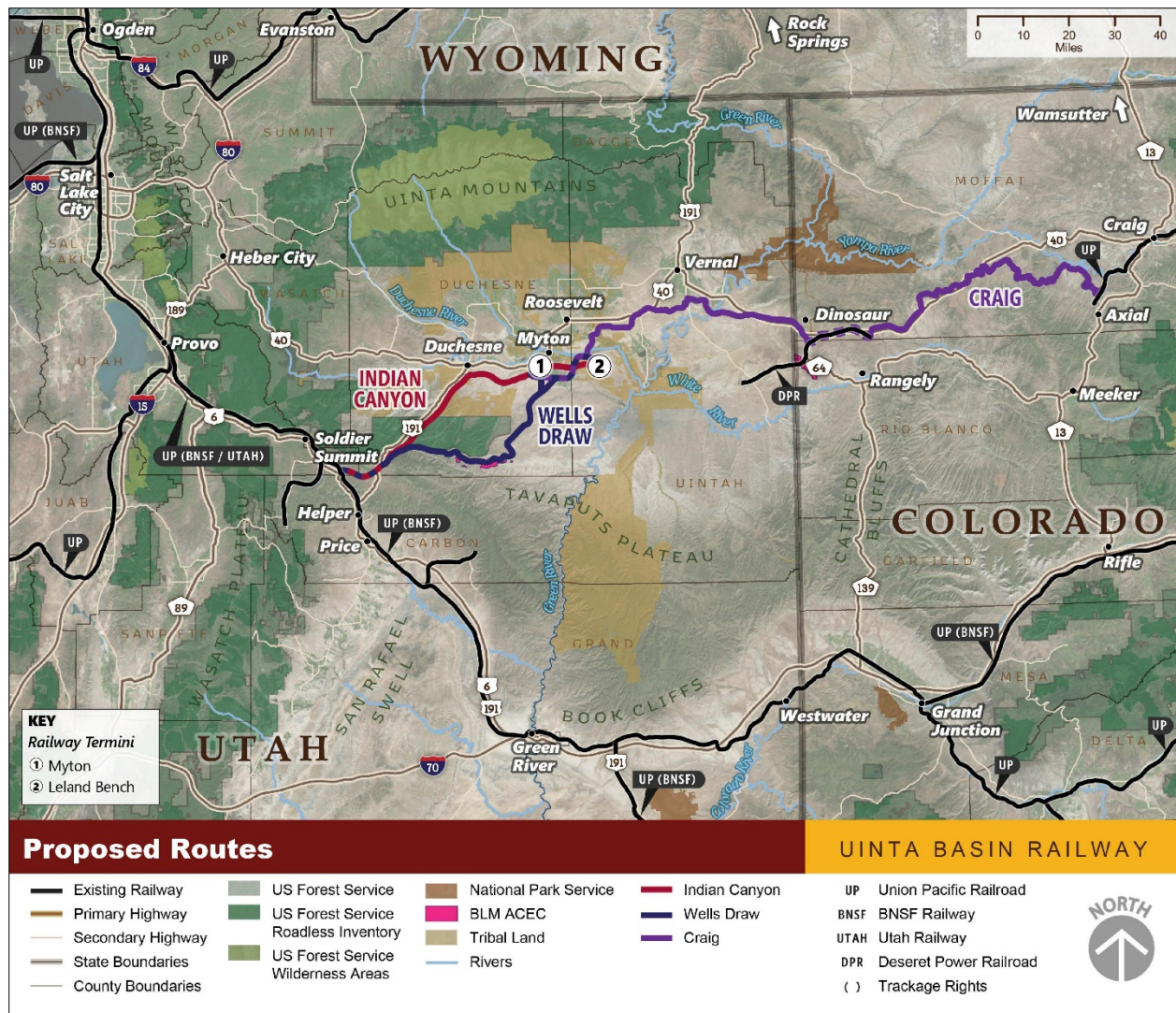


Figure 1. Proposed Route Alternatives

Previous Work

In 2014, HDR and SWCA conducted cultural resources assessments for Utah Department of Transportation's (UDOT) Uinta Basin Railroad feasibility study, consisting of an archaeological sample (Class II) survey and a selective architectural reconnaissance-level survey (RLS). Much of the Indian Canyon alternative proposed by the current Project follows the route evaluated during this previous study. Therefore, given that this project will involve the same agencies as UDOT's study, the methodology described here is intended to match that study as closely as possible so that the three Project alternatives can be adequately compared in the EIS. Since that study was completed less than five years ago, SWCA proposes that the data from that study can be updated and applied for the current analysis. Although UDOT's study was shelved prior to publication of an EIS, data from the cultural resources reconnaissance efforts were submitted to the Utah State Historic Preservation Office (SHPO). The results were not formally reviewed by them or any of the involved federal or state agencies.

DESKTOP ANALYSIS

High level consideration for impacts to particularly important cultural resources or areas was 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 (Class I) file search to identify previous cultural resources studies and previously recorded archaeological sites and historic architectural resources within a half-mile buffer of each of the three routes; this will include acquisition of data from the Utah Division of State History (UDSH) Preservation Pro database, an on-line search in the National Register of Historic Places (NRHP) database, a review of historic topographic maps and General Land Office maps, and a review of records held by land-managing agencies (particularly Bureau of Land Management [BLM] and U.S. Forest Service). The half-mile buffer is consistent with Utah SHPO and BLM guidelines for file searches in support of cultural resource inventories, as summarized in UDSH's *Archaeological Compliance Guidance* (2019). Data from this desktop analysis will be used to prepare a historic context for the project areas for reference when evaluating the significance of cultural resources potentially affected by the project, primarily regarding their eligibility for the NRHP.

For historic architectural resources, SWCA will also 1) consult historic maps that may identify the locations of historic-age resources in the study corridor (including all alternatives); 2) map all parcel boundaries and associated parcel numbers in the project area, and then consult on-line county assessors' websites to identify previously undocumented properties with architectural resources of historic age; and 3) use publicly available aerial imagery and, when available, aerial imagery produced for the project to identify the locations of previously undocumented but potentially historic architectural resources, such as abandoned homesteads known to be in the area.

Cultural resources data identified will be provided to STB or their consultant consistent with UDSH standards for treatment of data and data sharing agreements, if required.

RECONNAISSANCE SURVEY OF ARCHAEOLOGICAL RESOURCES

SWCA will build upon the information collected from the desktop analysis by conducting a Class II (reconnaissance or sample) survey of archaeological resources. The reconnaissance survey will involve pedestrian inventories across a sample of 10 percent of each environmental zone crossed by the project alternatives. Within the sample areas, the inventory will be conducted using Class III (intensive) inventory methods, as summarized in UDSH's *Archaeological Compliance Guidance* (2019) (i.e., the inventories will be conducted using 15-meter survey transect intervals), so that areas included in the Class II survey will not need to be re-surveyed during the Class III inventory that is expected to occur later for the project. The environmental zones will be based on U.S. EPA Level IV Ecoregions. The intent of the reconnaissance survey is to produce a reasonable sample of current field data that can be used together with the results of the desktop analysis to analyze the impacts of each alternative on archaeological resources for the EIS. Preliminary review of file search data for Utah indicates that only approximately 5 percent of the land within the study corridor has been surveyed at a Class III level since 2011 (thereby meeting Utah SHPO and land-managing agency requirements for survey adequacy by the expected time of project completion). This review further indicates that survey coverage varies widely among ecoregions, ranging from less than 1 percent to over 13 percent per ecoregion. The archaeological reconnaissance survey to be conducted will increase the overall dataset available for analysis in the EIS and will ensure adequate coverage of all environmental zones, both of which outcomes will result in more thorough and defensible analyses in the EIS.

Complete Class III survey will later be conducted for the entire APE of the preferred alternative carried forward in the final EIS or as stipulated in a programmatic agreement developed in support of the NEPA record of decision (ROD).

The reconnaissance survey sample areas will be identified using a stratified random sampling approach. Quarter-sections will be used as sampling units; these are a preferred sampling unit because they are easily communicable and can be tracked using data readily available through the Public Land Survey System. Sample areas will be selected with consideration to previously inventoried areas, as new field data will likely be most informative in areas that have not been previously sampled. The sample will exclude any land that, according to data provided by UDSH, has been surveyed at an intensive (Class III) level in 2011 or later. The sample will be stratified by ecoregion and land ownership or status such that approximately 10% of the land within each environmental zone and land status represented will be surveyed (acreage within the study corridor by land status is shown in Table 1). However, consideration will also be given to access, as well as to areas of existing disturbance, so that only intact ground surfaces with the potential to contain archaeological material are sampled. After selecting the initial sample areas, they will be screened to ensure that they can be accessed by survey crews and that they are not overly disturbed, and any areas that do not meet these criteria will be replaced by other randomly selected areas. And finally, input from land-managing agencies regarding land suitable for survey will also be sought, and the initial sample areas will be modified as appropriate in response to that input.

Table 1. Acreage by Land Status within the Study Corridor (All Three Alternatives) In Utah

Land Status	Total Acreage	Approximate Reconnaissance Survey Acreage
Bureau of Land Management (Vernal, Price, and Salt Lake Field Offices)	32,218	3,200
U.S. Forest Service (Ashley National Forest)	7,475	750
State (School and Institutional Trust Lands Administration; Division of Forestry, Fire and State Lands; and Department of Transportation)	5,246	520
Tribal (Uintah and Ouray Reservation)	2,538	n/a ^a
Private	24,494	2,400
Total	71,971	6,870 or greater

a. The methodology for tribal lands is being developed independently with the Ute Indian Tribe of the Uintah and Ouray Reservation. Reconnaissance survey acreage may be made up on land of other status and same environmental zone(s).

The result of this reconnaissance survey will be a representative sample of archaeological resources per environmental zone, allowing for a valid comparison of potential impacts to archaeological resources among alternatives in the EIS. The roughly 15% sample, comprising previously surveyed areas and areas to be surveyed during the archaeological reconnaissance survey for the project, which will represent over 10,000 acres surveyed in Utah, will strike a balance between providing enough data for alternatives comparison on the one hand and, on the other hand, expending a reasonable amount of time and money at this stage in the planning process. Based on preliminary background research that SWCA has conducted, it is estimated that archaeological site density across the Utah portion of the study corridor is approximately one site per 135 acres. Given this, it is estimated that approximately 80 sites will be present in the 15% sample for Utah, a sample size that should be statistically sufficient for estimating the density and nature of sites per environmental zone and for assessing the potential impact of each alternative on archaeological resources.

All fieldwork will be led by SWCA staff who are permitted by the Utah BLM and/or Ashley National Forest as crew chiefs/field directors. All pre-field file searches, fieldwork, and reporting will be conducted under the direct supervision of SWCA Principal Investigators who meet the Secretary of the Interior's (SOI) Professional Qualifications Standards for archaeology and who are permitted by the Utah BLM, Ashley National Forest, and Utah Public Land Policy Coordination Office as principal investigators/project directors. Federal and state agencies with land management responsibilities within

the reconnaissance survey area will be consulted prior to fieldwork, and their survey and reporting guidelines will be followed; this will include obtaining fieldwork authorizations from the agencies, as applicable, and meeting all other agency cultural resource permitting requirements. All archaeological sites encountered during the reconnaissance survey will be documented on Utah Archaeological Site Forms, and each site will be evaluated for its NRHP eligibility. Previously documented sites located in the reconnaissance survey areas will be revisited, and their site records will be updated as required by agency guidelines. To the extent practical given landowner considerations, archaeological resources will be documented in their entirety, and documentation will not be limited to the sample area boundary. HDR is coordinating the process of gaining access for survey on private land, and only private land with unrestricted access at the time of sample area selection will be included in the Class II sample survey. A review of private land access status indicates that there is ample private land with unrestricted access in each environmental zone within each project alternative, and we therefore anticipate no problems obtaining the samples required to support analysis in the EIS due to issues of private land access.

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 survey will be reported in a summary technical report with accompanying site forms.

RECONNAISSANCE LEVEL SURVEY OF HISTORIC ARCHITECTURAL RESOURCES

The project area in Utah is composed almost entirely of rural and undeveloped land. It is anticipated that historic architectural resources will be identified but that they will be few and widely scattered. Therefore, a selective reconnaissance-level survey (RLS) of historic architectural resources, including buildings, structures, objects, sites, and potential districts (including rural historic landscapes) that are of historic age (defined as 43 years old or older) for the entire length of the three proposed alignments (the study corridor) will be conducted, excluding only tribal lands. A selective RLS of Indian Canyon was conducted in 2014 during the UDOT study, although this may require updates to include any resources that have aged into consideration during the intervening five years.

SWCA will adhere to UDSH's *Reconnaissance Level Survey Standard Operating Procedures (For Section 106 Purposes Only)* (2015) for areas of the study corridor in Utah. A research design will be submitted to the Utah SHPO and comments will be addressed prior to commencement of fieldwork.

During field survey, SWCA will document all properties with historic-age architectural resources identified in the desktop analysis. In accordance with the Utah guidelines, documentation will comprise examination of the exteriors of the resources on each property, notation on architectural type and style, documentation of alterations that would affect the eligibility of the resources and property for the NRHP, and photographic documentation. SWCA will also evaluate properties for their eligibility as part of a larger historic district and as rural historic landscapes in accordance with National Park Service guidance. Finally, SWCA will drive all major and secondary roads in the project area to locate and document any additional resources that, based on professional opinion, are of historic age based on architectural type, style, and materials. If a landowner has not granted access to private property or access cannot be coordinated in a timely way, SWCA will document any resources of historic age visible from the public right-of-way and note all access limitations in the survey report.

Upon completion of the selective RLS, a technical report will be prepared summarizing methods, survey results, and recommendations of NRHP eligibility for each documented property. The report will meet Utah guidelines for selective RLS reports and will include all standard architectural inventory forms.

TECHNICAL MEMORANDUM

To: Kevin Keller, HDR

From: Mike Cannon and Paul Burnett, Principal Investigators, SWCA Environmental Consultants

Date: June 25, 2019

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

BACKGROUND

This plan outlines SWCA Environmental Consultant's (SWCA's) 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). Of these three alternatives, only the Craig alternative is in Colorado, and the proposed methods presented here are therefore limited to this alternative. Methods for identifying properties of cultural or religious significance to tribes are being developed independently with the Ute Indian Tribe of the Uintah and Ouray Reservation and with other tribes who may choose to consult regarding the project. STB is initiating government-to-government consultation with the following potentially affected tribes:

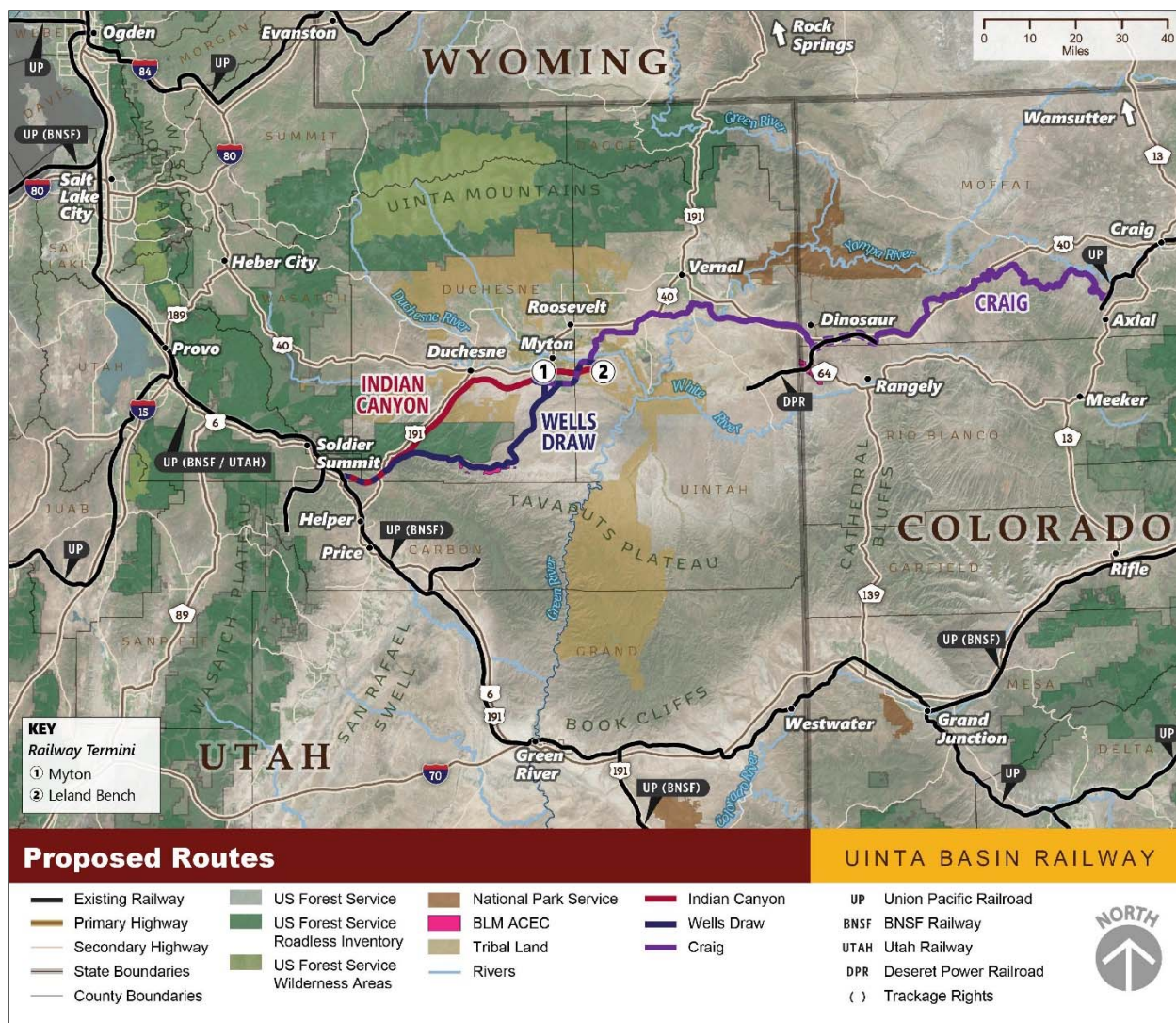
- Ute Indian Tribe of the Uintah and Ouray Reservation, Utah
- Apache Tribe of Oklahoma
- Eastern Shoshone Tribe of the Wind River Reservation, Wyoming
- Confederated Tribes of the Goshute Reservation, Nevada and Utah
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Hopi Tribe of Arizona
- Navajo Nation, Arizona, New Mexico, and Utah
- Northwestern Band of the Shoshone Nation, Utah
- Paiute Indian Tribe of Utah (Cedar Band of Paiutes, Kanosh Band of Paiutes, Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes)
- Shoshone-Bannock Tribes of the Fort Hall Reservation, Idaho
- Skull Valley Band of Goshute Indians
- White Mesa/Ute Mountain Ute Tribe, Utah and Colorado

Additional interested tribes may be identified during the scoping process. If additional alternatives are identified during the EIS scoping process, the methods described here will be applied to those alternatives as well.

STB is the lead federal agency for the purposes of review under Section 106 of the National Historic Preservation Act. STB's Office of Environmental Analysis (OEA) will be responsible for coordinating with the Colorado SHPO, tribes, other Section 106 consulting parties, and the public to identify historic

properties that could be affected by the proposed rail line. Information gathered to inform the affected environment study is planned to be collected from both a comprehensive desktop analysis and a sample survey. These methods will not constitute adequate identification efforts under Section 106 for the eventual selected project alternative; however, the fieldwork will be conducted in a manner that will support the inventories of the selected alternative in order to limit rework in the areas sampled for the current study.

Based on the proposed route alternatives provided to SWCA on April 24, 2019, the study corridor for the Craig alternative is composed of 21,764 acres in Colorado. The areas of potential effect (APEs) for the project have not been finalized. OEA will develop the APEs in consultation with the SHPO and participating tribes and other consulting parties during the Section 106 review process.



Previous Work

No previous cultural resource assessments have been conducted specifically for the Craig alternative. However, in 2014, HDR and SWCA conducted cultural resources assessments for Utah Department of

Transportation's (UDOT) Uinta Basin Railroad feasibility study, consisting of an archaeological sample (Class II) survey and a selective architectural reconnaissance-level survey of the Indian Canyon alternative. Therefore, given that this project will involve the same tribes and agencies as UDOT's study, the methods described here are intended to match that study as closely as possible so that the three Project alternatives can be adequately compared in the EIS. Since that study was completed less than five years ago, SWCA anticipates that the data from that study can be updated and incorporated into the current analysis. Although UDOT's study was shelved prior to publication of an EIS, data from the cultural resources reconnaissance efforts were submitted to the Utah State Historic Preservation Office (SHPO).

DESKTOP ANALYSIS

High level consideration for impacts to particularly important cultural resources or areas was included in the development of alternatives being carried forward in the EIS. A comprehensive literature review will be completed for the alternatives as a part of the current study. This will be used to support the sample inventories. This review will identify previous cultural resources studies, previously recorded archaeological sites, and historic architectural resources within a 1-mile buffer. For the Craig alternative, this review will include acquisition of data from the Colorado Office of Archaeology and Historic Preservation (OAHP) COMPASS database, an on-line search in the National Register of Historic Places (NRHP) database, a review of historic topographic maps and General Land Office maps, and a review of records held by land-managing agencies (particularly BLM). The 1-mile buffer is consistent with Colorado SHPO and BLM guidelines for file searches in support of cultural resource inventories, as summarized in OAHP's *Colorado Cultural Resource Survey Manual* (2007) and the BLM *Colorado Northwest District's and Grand Junction Field Office's Procedures and Reporting Standards for Cultural Resource Consultants Conducting Projects Under a CRUP Permit* (2019). Data from this desktop analysis will be used to prepare a historic context for the project area for reference when evaluating the significance of cultural resources potentially affected by the project, primarily regarding their eligibility for the NRHP.

For historic architectural resources, SWCA will also 1) consult historic maps that may identify the locations of historic-age resources; 2) map all parcel boundaries and associated parcel numbers in the project area, and then consult on-line county assessor websites to identify previously undocumented properties with architectural resources of historic age; and 3) use publicly available aerial imagery and, when available, aerial imagery produced for the project to identify the locations of previously undocumented but potentially historic architectural resources, such as abandoned homesteads known to be in the area.

RECONNAISSANCE SURVEY OF ARCHAEOLOGICAL RESOURCES

SWCA will build upon the information collected from the desktop analysis by conducting a Class II (reconnaissance or sample) survey for cultural resources. This survey will involve pedestrian inventories across a sample of 10 percent of each environmental zone crossed by the project alternative. Within the sample areas, the inventory will be conducted using Class III (intensive) inventory methods, as summarized in OAHP's *Colorado Cultural Resource Survey Manual* (2007) and the BLM *Colorado Northwest District's and Grand Junction Field Office's Procedures and Reporting Standards for Cultural Resource Consultants Conducting Projects Under a CRUP Permit* (2019) (i.e., the inventories will be conducted using 20-meter survey transect intervals), so that areas included in the sample survey will not need to be re-surveyed during the Class III inventory that is expected to occur later for the project should the Craig alternative become the selected alternative. The environmental zones will be based on U.S. EPA Level IV Ecoregions. The intent of the reconnaissance survey is to produce a reasonable sample of current field data that can be used together with the results of the desktop analysis to analyze the impacts of each alternative on archaeological resources for the EIS. Preliminary review of file search data for

Colorado indicates that only approximately 1.5 percent of the land within the study corridor has been surveyed at a Class III level since 2011 (thereby meeting Colorado SHPO and land-managing agency requirements for survey adequacy by the expected time of project completion). This review further indicates that survey coverage is relatively consistent among ecoregions, with all ecoregions having less than 1 percent survey coverage since 2011. The archaeological reconnaissance survey to be conducted will increase the overall dataset available for analysis in the EIS and will ensure adequate coverage of all environmental zones, both of which outcomes will result in more thorough and defensible analyses in the EIS.

Complete Class III survey will be conducted for the entire APE of the selected alternative carried forward in the final EIS or as stipulated in a programmatic agreement developed in support of the NEPA record of decision (ROD).

The reconnaissance survey sample areas will be identified using a stratified random sampling approach. Quarter-sections will be used as sampling units; these are a preferred sampling unit because they are easily communicable and can be tracked using data readily available through the Public Land Survey System. Sample areas will be selected with consideration to previously inventoried areas, as new field data will likely be most informative in areas that have not been previously sampled. The sample will exclude any land that, according to data provided by OAHP, has been surveyed at an intensive (Class III) level in 2011 or later. The sample will be stratified by ecoregion and land ownership or status such that approximately 10% of the land within each environmental zone and land status represented will be surveyed (acreage within the study corridor by land status is shown in Table 1). However, consideration will also be given to access, as well as to areas of existing disturbance, so that only intact ground surfaces with the potential to contain archaeological material are sampled. After selecting the initial sample areas, they will be screened to ensure that they can be accessed by survey crews and that they are not overly disturbed, and any areas that do not meet these criteria will be replaced by other randomly selected areas. And finally, input from land-managing agencies regarding land suitable for survey will also be sought, and the initial sample areas will be modified as appropriate in response to that input.

Table 1. Acreage by Land Status within the Study Corridor (Craig Alternative) In Colorado

Land Status	Total Acreage	Approximate Reconnaissance Survey Acreage
Bureau of Land Management (Vernal, Price, and Salt Lake Field Offices)	10,362	1,036
State (Colorado Division of Wildlife, State Lands, and Department of Transportation)	1,240	124
Private	10,168	1,016
Total	21,770	2,176 or greater

The result of this reconnaissance survey will be a representative sample of archaeological resources per environmental zone, allowing for a valid comparison of potential impacts to archaeological resources

among alternatives in the EIS. The roughly 11.5% sample, comprising previously surveyed areas and areas to be surveyed during the archaeological reconnaissance survey for the project, which will represent approximately 2,500 acres surveyed in Colorado, will strike a balance between providing enough data for alternatives comparison on the one hand and, on the other hand, expending a reasonable amount of time and money at this stage in the planning process. Based on preliminary background research that SWCA has conducted, it is estimated that archaeological site density across the Colorado portion of the study corridor is approximately one site per 73 acres. Given this, it is estimated that approximately 30 sites will be present in the 11.5% sample for Colorado, a sample size that should be statistically sufficient for estimating the density and nature of sites per environmental zone and for assessing the potential impact of each alternative on archaeological resources.

All fieldwork will be led by SWCA staff who are permitted by the Colorado BLM as crew chiefs/field directors. All pre-field file searches, fieldwork, and reporting will be conducted under the direct supervision of SWCA Principal Investigators who meet the Secretary of the Interior's Professional Qualifications Standards for archaeology and who are permitted by the Colorado BLM and Colorado OAHP as principal investigators/project directors. Federal and state agencies with land management responsibilities within the reconnaissance survey area will be consulted prior to fieldwork, and their survey and reporting guidelines will be followed; this will include obtaining fieldwork authorizations from the agencies, as applicable, and meeting all other agency cultural resource permitting requirements. All archaeological sites encountered during the reconnaissance survey will be documented on Colorado Cultural Resource Inventory Forms, and each site will be evaluated for its NRHP eligibility. Previously documented sites located in the reconnaissance survey areas will be revisited, and their site records will be updated as required by agency guidelines. To the extent practical given landowner considerations, archaeological resources will be documented in their entirety, and documentation will not be limited to the sample area boundary. HDR is coordinating the process of gaining access for survey on private land, and only private land with unrestricted access at the time of sample area selection will be included in the Class II sample survey. A review of private land access status indicates that there is ample private land with unrestricted access in each environmental zone within the Craig alternative, and we therefore anticipate no problems obtaining the samples required to support analysis in the EIS due to issues of private land access.

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 survey will be reported in a summary technical report with accompanying site forms.

RECONNAISSANCE LEVEL SURVEY OF HISTORIC ARCHITECTURAL RESOURCES

The project area in Colorado is composed almost entirely of rural and undeveloped land. It is anticipated that historic architectural resources will be identified but that they will be few and widely scattered. Therefore, a selective reconnaissance-level survey (RLS) of historic architectural resources, including buildings, structures, objects, sites, and potential districts (including rural historic landscapes) that are of historic age (defined as 43 years old or older) for the entire length of the Craig proposed alignment (the study corridor) will be conducted.

SWCA will adhere to OAHP's *Colorado Cultural Resource Survey Manual* (2007) and *Photographic Standards for Intensive Level Historical & Architectural Surveys* (2005), and the BLM *Colorado Northwest District's and Grand Junction Field Office's Procedures and Reporting Standards for Cultural Resource Consultants Conducting Projects Under a CRUP Permit* (2019) for areas of the study corridor

in Colorado. A research design will be submitted to the Colorado SHPO and comments will be addressed prior to commencement of fieldwork.

During field survey, SWCA will document all properties with historic-age architectural resources identified in the desktop analysis. In accordance with the Colorado guidelines, documentation will comprise examination of the exteriors of the resources on each property, notation on architectural type and style, documentation of alterations that would affect the eligibility of the resources and property for the NRHP, and photographic documentation. SWCA will also evaluate properties for their eligibility as part of a larger historic district and as rural historic landscapes in accordance with National Park Service guidance. Finally, SWCA will drive all major and secondary roads in the project area to locate and document any additional resources that, based on professional opinion, are of historic age based on architectural type, style, and materials. If a landowner has not granted access to private property or access cannot be coordinated in a timely way, SWCA will document any resources of historic age visible from the public right-of-way and note all access limitations in the survey report.

Upon completion of the selective RLS, a technical report will be prepared summarizing methods, survey results, and recommendations of NRHP eligibility for each documented property. The report will meet Colorado guidelines for selective RLS reports and will include all standard architectural inventory forms.