Selective Reconnaissance-Level Survey of Archaeological Resources Along Proposed Routes for the Uinta Basin Railway Project in Carbon, Duchesne, Uintah, and Utah Counties, Utah

MAY 2020

PREPARED FOR

HDR Engineering, Inc.

PREPARED BY

SWCA Environmental Consultants

SELECTIVE RECONNAISSANCE-LEVEL SURVEY OF ARCHAEOLOGICAL RESOURCES ALONG PROPOSED ROUTES FOR THE UINTA BASIN RAILWAY PROJECT IN CARBON, DUCHESNE, UTAH, AND UINTAH COUNTIES, UTAH

Creation dates of proposed routes (based on GIS data provided by HDR):
Indian Canyon Proposed Route: 11/22/2019 (final data received 11/26/2019)
Whitmore Park Proposed Route: 2/12/2020 (final data received 2/12/2020)
Wells Draw Proposed Route: 11/22/2019 (final data received 11/26/2019)

Prepared for

HDR Engineering, Inc.
2825 East Cottonwood, Suite 200
Salt Lake City, Utah 84121

Prepared by

Rachael Fisher, B.S.; David Schmitt M.A., RPA; Tiffany Tuttle Collins, M.A. and Amanda Carroll, M.A., RPA

Principal Investigator

Suzanne Eskenazi, M.A., RPA

SWCA Environmental Consultants
257 East 200 South, Suite 200
Salt Lake City, Utah 84111
www.swca.com

Utah State Antiquities Project No. U19ST0249
Bureau of Land Management Permit No. 17UT55126
Public Lands Policy Coordination Office Permit No. 318

SWCA Project No. 53323.03
SWCA Cultural Resources Report No. 19-623

May 2020

ABSTRACT

Report Title. *Selective Reconnaissance-Level Survey of Archaeological Resources Along Proposed Routes for the Uinta Basin Railway Project in Carbon, Duchesne, Uintah, and Utah Counties, Utah*

Report Date. May 2020

Lead Agency Name. Surface Transportation Board (STB)

Permit and Project Numbers. Utah State Antiquities Project No. U19ST0249; Bureau of Land Management (BLM) Permit No. 17UT55126; Public Lands Policy Coordination Office Permit No. 318 (issued to Suzanne Eskenazi); SWCA Environmental Consultants (SWCA) Project No. 53323.03; SWCA Cultural Resources Report No. 19-623

Land Ownership Status. Land ownership includes private ownership, lands owned by the Ute Tribe of the Uintah and Ouray Indian Reservation (Ute Tribal lands), and public lands managed by the BLM (Vernal, Price, and Salt Lake Field Offices), the State of Utah School and Institutional Trust Lands Administration (SITLA), and the U.S. Forest Service (USFS).

Project Description. The Seven County Infrastructure Coalition (Coalition) proposes to construct and operate an approximately 80-mile rail line between two terminus points in the Uinta Basin and the interstate railway network. The Uinta Basin Railway Project (Project) would be constructed and operated under the authority of the STB and has the potential to result in significant environmental impacts. For this reason, an environmental impact statement (EIS) is being prepared pursuant to the National Environmental Policy Act (NEPA). The Coalition proposes a no build option and three routes (proposed routes), which are subject to environmental analysis.

Project Location. The proposed routes are in Carbon, Duchesne, Uintah, and Utah Counties, Utah. The routes are on the U.S. Geological Survey 7.5-minute quadrangles for Vernal SW, Fort Duchesne, Randlett, Windy Ridge, Myton, Bridgeland, Duchesne NE, Pariette Draw SW, Myton SE, Myton SW, Duchesne SE, Buck Knoll, Gilsonite Draw, Anthro Mountain, Lance Canyon, Jones Hollow, Cowboy Bench, Currant Canyon, Wood Canyon, Minnie Maud Creek East, Minnie Maud Creek West, Matts Summit, and Kyune, Utah.

Table A-1. Project Location by Proposed Route

Township/ Range	Section(s)	Meridian
Indian Canyon Proposed Route		
4 South (S) 1 West (W)	02, 10	Uintah
4S 2W	11, 12, 17	Uintah
4S 3W	23, 27	Uintah
4S 4W	17	Uintah
4S 5W	15, 21, 22, 32	Uintah
5S 6W	22, 28	Uintah
6S 6W	05	Uintah
6S 7W	11, 12, 13, 14, 21, 28	Uintah
7S 7W	06	Uintah

Township/ Range	Section(s)	Meridian
11S 8 East €	25	Salt Lake
11S 9E	30, 33	Salt Lake
11S 10E	23, 24, 27, 34	Salt Lake
12S 9E	02, 12	Salt Lake
12S 10E	07	Salt Lake
Whitmore Park Proposed Route		
12S 10E	07, 09, 10	Salt Lake
4S 4W	26	Uintah
Wells Draw Proposed Route		
8S 16E	26	Salt Lake
9S 16E	18, 19, 32	Salt Lake
10S 15E	22	Salt Lake
11S 11E	01, 02, 08, 09,	Salt Lake
11S 12E	05, 06	Salt Lake
11S 13E	24	Salt Lake
11S 14E	13, 15, 18, 22	Salt Lake
11S 15E	10	Salt Lake

National Register of Historic Places (NRHP)–Eligible Sites. Six sites are recommended eligible for the NRHP: 42DC348 (Indian Canyon and Whitmore Park Proposed Routes), 42DC3802 (Indian Canyon and Wells Draw Proposed Routes), 42DC4128 and 42UN2787/42DC1381 (Wells Draw Proposed Route), and 42UN8923 (Whitmore Park Proposed Route), 42UT1370 (a non-contributing segment of an overall eligible site in Indian Canyon, Wells Draw, and Whitmore Park Proposed Routes).

NRHP-Ineligible Sites. Nineteen sites are recommended not eligible for the NRHP: 42CB786, 42CB1871/42UT1085, 42CB1898, 42CB3493, 42DC348, 42DC3543, 42DC4129, 42DC4130, 42DC4131, 42DC4132, 42DC4133, 42DC4134, 42DC4135, 42DC4136, 42DC4137, 42DC4138, 42UN8919, 42UT1084, and 42UT2149).

Management Recommendations. As a result of the survey, SWCA identified a total of 25 archaeological sites, consisting of 11 previously recorded sites and 14 newly documented sites. One site (42UN8923) is recommended eligible under Criterion D. Two sites (42UN2787 and 42DC3802) are recommended eligible under Criterion A. One site (42UT1370) is eligible under Criterion A, although the segments within the survey area are non-contributing. One site (42DC4128) is recommended eligible under Criteria C and D. One site (42DC348) is recommended eligible under Criteria A, C, and D. The remaining 19 sites (42CB786, 42CB1871/42UT1085, 42CB1898, 42CB3493, 42DC328, 42DC3543, 42DC4129, 42DC4130, 42DC4131, 42DC4132, 42DC4133, 42DC4134, 42DC4135, 42DC4136, 42DC4137, 42DC4138, 42UN8919, 42UT1084, and 42UT2149) are recommended not eligible for the NRHP. In addition, eight isolated features and 26 isolated occurrences were also recorded.

The purpose of this report is to establish the likely presence of cultural resources within each proposed route. A preliminary finding of effects will be prepared to analyze effects based on the information presented in this report. In addition, an agreement document will be prepared at a later date to memorialize the process for implementing and completing the field survey and final findings of effect and resolving any adverse effects.

CONTENTS

Appendices

Figures

Tables

Abbreviations

BLM	Bureau of Land Management
Coalition	Seven County Infrastructure Coalition
E	east
EIS	environmental impact statement
IF	isolated feature
IO	isolated occurrence
SITLA	School and Institutional Trust Lands Administration
NEPA	National Environmental Policy Act
OEA	Office of Environmental Analysis
Project	Uinta Basin Railway Project
S	south
STB	Surface Transportation Board
SWCA	SWCA Environmental Consultants
UASF	Utah Archaeology Site Form
UDSH	Utah Division of State History
USFS	U.S. Forest Service
W	west

This page intentionally left blank.

1 INTRODUCTION

The Seven County Infrastructure Coalition (Coalition) proposes to construct and operate an approximately 80-mile rail line between two terminus points in the Uinta Basin and the interstate railway network. The Uinta Basin Railway Project (Project) would be constructed and operated under the authority of the Surface Transportation Board (STB) and has the potential to result in significant environmental impacts. For this reason, an environmental impact statement (EIS) is being prepared pursuant to the National Environmental Policy Act (NEPA).

The Coalition contracted HDR Engineering Inc. (HDR) to provide environmental consulting services in support of the Project. In December 2018, HDR subcontracted SWCA Environmental Consultants (SWCA) to conduct a selective and representative intensive-level (Class III) archaeological survey to support an environmental analysis of three route alignments under NEPA and to assist the STB, as the lead federal agency, in its responsibilities under Section 106 of the National Historic Preservation Act of 1966 (Section 106) and its governing regulations (36 Code of Federal Regulations 800.34 (b) (2)). These regulations require federal agencies to take into account the effects of their undertakings on historic properties prior to a federal action, including expenditure of any federal funds or issuance of federal permit or land transfer. The purpose of this report is to establish the likely presence of cultural resources within each proposed route. A preliminary finding of effects will be prepared to analyze effects based on the information presented in this report. In addition, an agreement document will be prepared at a later date to memorialize the process for implementing and completing the field survey and final findings of effect and resolving any adverse effects.

The Project is located in Carbon, Duchesne, Uintah, and Utah Counties, Utah. Land ownership includes private ownership, lands owned by the Ute Tribe of the Uintah and Ouray Reservation (Ute Tribal lands), and public lands managed by the Bureau of Land Management (BLM) (Vernal, Price, and Salt Lake Field Offices), the State of Utah School and Institutional Trust Lands Administration (SITLA), and the U.S. Forest Service (USFS). The Coalition proposes a no build option and three routes (proposed routes), which are subject to environmental analysis:

- The Indian Canyon Proposed Route is 80.6 miles long (based on a centerline alignment dated 11/22/2019) and runs from a connection to the national railway network near Kyune, Utah, to two terminus points near Myton and Leland Bench, Utah, in the Uinta Basin.
- The Whitmore Park Proposed Route is 87.7 miles long (based on a centerline alignment dated 2/12/2020) and runs from a connection to the national railway network near Kyune to two terminus points near Myton and Leland Bench in the Uinta Basin. It coincides with the Indian Canyon Route for much of its length.
- The Wells Draw Proposed Route is 103.3 miles long (based on a centerline alignment dated 11/22/2019) and runs from a connection to the national railway network near Kyune to two terminus points near Myton and Leland Bench.

The initial study methodologies submitted to the STB's Office of Environmental Analysis (OEA) in the spring of 2019 identified a 2,000-foot study area width for each proposed route. When survey fieldwork began in the late spring of 2019, the Coalition's consultant (and OEA's third-party consultant) observed that the actual conditions along the alignments, including steep slopes, ridgelines, and other topographical constraints, were constraining field surveys within the 2,000-foot-wide corridor, which were occurring for the Indian Canyon Proposed Route. In fact, in some areas, the corridor extended from the centerline located in one canyon up and over the ridgeline into a different canyon. In response to the consultant's field observations and ongoing coordination with OEA during weekly project update calls, an approximately 1,000-foot study area width was considered practical and feasible in most areas. However, in some areas, the width ranges up to 2,000 feet—for example, where the design team anticipates that a

wider earthwork footprint might be needed to traverse the steep slopes with the restrictive railway grades. The study area also ranges up to 2,000 feet wide in areas where archaeological resources had already been identified and surveyed prior to the reduction to a 1,000-foot-wide corridor. Per the reporting requirements of land management agencies, information gathered using the earlier and wider route alternatives was retained in this report after the corridor width was reduced.

The area of potential effects (APE) is defined as an area that includes staging areas, access roads, communication tower locations, and all areas of cut and fill. This area was set by the engineers to include temporary and permanent impacts. For all three routes, the "proposed route" refers to the potential construction area that is defined as the APE plus a 1,000-foot buffer in most areas and parts of the APE that go outside the buffer. The route corridor varies in width based on the planned construction, as indicated in maps included in the appendices (Appendix A through Appendix C). The buffer extends approximately 1,000 feet beyond the route corridor on either side for most of the proposed routes; areas with exceptions to this buffer are explained in the introduction above. The buffer is designed to take into account the potential for both direct and indirect effects on archaeological resources; it encompasses the entirety of the updated route corridor. All maps in the appendices show the route corridor (labeled "Proposed Route") and the area in which survey occurred (labeled "Survey Area"). When only a part of a parcel fell within the proposed route, the entire parcel was included for survey. During analysis, some parcels fell within the proposed route but the archaeological resource fell outside of it; when this was the case, the parcel was still included in the results due to the potential for indirect or cumulative impacts to archaeological resources even when outside the APE.

This report summarizes the results of the selective intensive-level survey of archaeological sites in Carbon, Duchesne, Uintah, and Utah Counties, Utah (see Appendix A, Figures A-1 through A-68). The survey was done in support of the Project, which is examining the potential impacts of proposed railway route alternatives that may facilitate transportation of commodities out of the Uinta Basin. HDR requested that SWCA document and evaluate archaeological sites within the selected segments of the survey area for a representation of the potential effects to historic properties within the survey area for all proposed route alternatives.

To facilitate the evaluation of the proposed routes and the consideration of effects of any undertaking under Section 106 after a proposed route is selected, the survey results have been broken out by proposed route in the Survey Results section. In some cases, proposed routes partially overlap in terms of the geographic area they encompass. As a result, some resources fall within multiple proposed routes. In those cases, the resources are listed in each proposed route even when this results in repetition in order to provide complete information about each proposed route. This report provides important information regarding the number, locations, and nature of NRHP-eligible or potentially eligible properties.

Three properties appear in both the architecture (Hovanes and Daniels 2020) and archaeology reports. This is because those properties contain both historic architecture and archaeological resources. In cases where a property appears in both reports, it is identified using both its architectural identifier and its Smithsonian trinomial, to allow the property to be cross-referenced for both reports. The archaeological and architectural components are discussed separately in the reports. The architecture report addresses only architectural components. This report addresses archaeological components and notes the presence of buildings but does not discuss them in detail.

1.1 Survey Area and Selection Process

The survey areas encompass the three proposed routes and were selected before the routes were finalized. The survey area consists of selective sample survey areas, or survey area blocks, of approximately 10 percent of the land within each of the three proposed routes before they were finalized. To identify

sampling areas, quarter-sections were treated as sampling units. The sampling units were then reduced to exclude land that, according to data provided by the Utah Division of State History (UDSH), had been surveyed at an intensive level (Class III) in 2011 or later. The sample was then stratified by ecoregion and land ownership or status such that approximately 10 percent of the land within each environmental zone (based on ecoregions developed by the U.S. Environmental Protection Agency) and landowner represented within each route was surveyed. Consideration was also given to areas of existing disturbance, so that only intact ground surfaces with the potential to contain archaeological material were sampled. The sample survey areas were then reviewed to ensure field crews had access to them. Any areas that did not meet the above criteria were replaced by other selected areas that had similar acreages, land ownership, and ecoregions. Input from land management agencies, private property owners, and accessible terrain regarding land suitable for survey was also sought, and the initial sample survey areas were modified, as appropriate, in response to that input. The archaeological resources survey was conducted within the entirety of each proposed route before the final routes were selected (see maps in Appendix A, although these maps depict the final proposed route locations, and therefore may not align with the survey area blocks, as they were selected before final routes were provided). This resulted in an intensive-level archaeological survey in survey area blocks as a sample for modeling of where site locations and types are most likely to occur within each environmental zone and proposed route (see Section 5).

Much of the survey area comprises rural or undeveloped lands, although the Indian Canyon Proposed Route passes close to the towns of Myton and Duchesne. Within the counties of Carbon, Duchesne, Uintah, and Utah, the survey area is located on the following lands:

- Private lands
- Public lands regulated by the Bureau of Land Management (BLM)
- State lands regulated by the Utah School and Institutional Trust Lands Administration (SITLA)
- Public lands regulated by the U.S. Forest Service (USFS)

Although Ute Tribal land is present in two of the proposed routes, these lands were not surveyed, and they are being addressed in a separate report at the request of the Tribe. The STB held an initial consultation meeting with the Ute Tribe of the Uintah and Ouray Indian Reservation (Ute Indian Tribe) on November 20, 2019 (personal communication, Kevin Keller, HDR, March 20, 2020), and methods for identifying properties of cultural or religious significance to the Tribe are being developed independently with the Ute Indian Tribe and other Tribes that may choose to consult regarding the Project. STB is initiating government-to-government consultation with the following potentially affected Tribes:

- Ute Indian Tribe, 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.

HDR provided the spatial data used for sample survey area selection at different points in time. These proposed routes and their buffers are evolving and have evolved since fieldwork was conducted. SWCA used Indian Canyon shapefiles dated May 22, 2019, by HDR for survey area selection for that proposed route. SWCA used the Wells Draw shapefiles dated May 30, 2019, by HDR and received by SWCA on August 27, 2019, for the sample survey area selection for that proposed route. Lastly, SWCA used Whitmore Park shapefiles dated August 21, 2019, by HDR and received by SWCA on September 27, 2019, for the sample survey area selection for that proposed route. In February 2020, HDR made final route adjustments. The sample survey areas that are displayed are from the above dates; however, the updated routes (as of February 12, 2020) are used on all maps and are the basis for many tables and figures for the purposes of this report and in Appendices A through C. Therefore, calculations, maps, survey area blocks, and their results do not align completely in all cases with the final routes.

1.1.1 *Indian Canyon Proposed Route*

From west to east, the Indian Canyon Proposed Route begins in Kyune, near U.S. Highway (US) 6 and north of Price in Utah County. It then trends northeast across Duchesne County, paralleling US 191 through Indian Canyon. south of Duchesne, it begins to trend east, running parallel with and south of US 40. It terminates at two points, near Leland Bench and southeast of Myton (Figure 1; see Appendix A, Figures A-1 through A-16).

The Indian Canyon Proposed Route passes through four counties: Carbon, Duchesne, Uintah, and Utah. Within those four counties, the proposed route is on the following lands:

- Private lands
- Ute Tribal lands
- Public lands regulated by the BLM
- State lands regulated by SITLA
- Public lands regulated by the USFS

The surveyed portion of the Indian Canyon route consists of 37 survey area blocks, totaling 2,203 acres (Table 1). These survey area blocks were selected using an early shapefile received from HDR dated April 24, 2019. A revised shapefile dated February 12, 2020, included a much narrower corridor. As a result, many of the selected survey area blocks fell outside the narrower corridor. Although sample survey areas were selected using the earlier shapefile and archaeologists surveyed within this original corridor, SWCA used the February 12, 2020, shapefiles to create all Indian Canyon maps in order to reflect the most current proposed route. The survey area blocks vary in size and represent the Mountain Valleys, Escarpments, Semiarid Benchlands and Canyonlands, Uinta Basin Floor, and Wasatch Montane Zone ecoregions (see Appendix A, Figures A-1 through A-16).

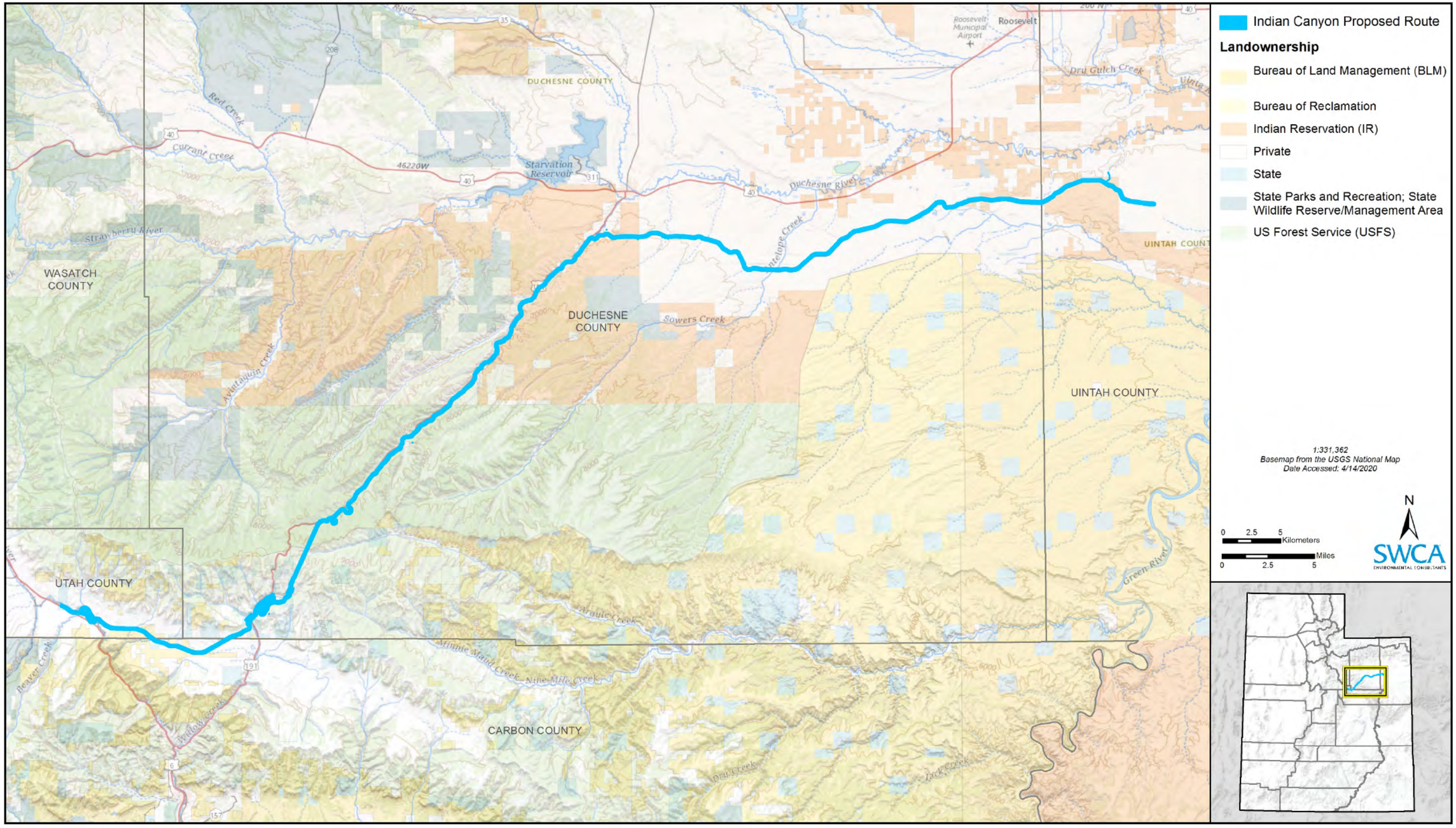

Figure 1. Overview of Indian Canyon Proposed Route.

This page intentionally left blank.

Table 1. Indian Canyon Proposed Route Survey Area Blocks, Public Land Survey System Location and Meridian, Landowner, Ecoregion, and Acreage

Survey Area Block Number	Township/ Range	Section	Meridian	Land Ownership	Ecoregion	Acres
1	11S 10E	27	Salt Lake	SITLA	Wasatch Montane Zone	72
2	11S 10E	23	Salt Lake	Private	Wasatch Montane Zone	41
3	11S 8E	25	Salt Lake	SITLA	Wasatch Montane Zone	20
4	11S 10E	23	Salt Lake	Private	Wasatch Montane Zone	69
5	11S 10E	34	Salt Lake	SITLA	Mountain Valleys	18
6	11S 8E	25	Salt Lake	Private	Wasatch Montane Zone	30
7	11S 9E	30	Salt Lake	Private	Mountain Valleys	49
8	11S 9E	33	Salt Lake	BLM	Mountain Valleys	47
9	12S 10E	07	Salt Lake	BLM	Mountain Valleys	16
10	12S 9E	02	Salt Lake	Private	Mountain Valleys	50
11	12S 9E	02	Salt Lake	Private	Mountain Valleys	54
12	12S 9E	12	Salt Lake	BLM	Mountain Valleys	17
13	4S 1W	02	Uintah	Private	Uinta Basin Floor	22
14	4S 1W	02	Uintah	Private	Uinta Basin Floor	148
15	4S 1W	10	Uintah	Private	Uinta Basin Floor	99
16	4S 2W	11	Uintah	Private	Uinta Basin Floor	76
17	4S 2W	12	Uintah	Private	Uinta Basin Floor	21
18	4S 2W	17	Uintah	Private	Uinta Basin Floor	122
19	4S 3W	23	Uintah	Private	Uinta Basin Floor	51
20	4S 3W	27	Uintah	Private	Uinta Basin Floor	51
21	4S 4W	17	Uintah	Private	Semiarid Benchlands and Canyonlands	70
22	4S 5W	15	Uintah	Private	Semiarid Benchlands and Canyonlands	111
23	4S 5W	21	Uintah	Private	Semiarid Benchlands and Canyonlands	73
24	4S 5W	22	Uintah	Private	Semiarid Benchlands and Canyonlands	54
25	4S 5W	32	Uintah	Private	Semiarid Benchlands and Canyonlands	33
26	5S 6W	22	Uintah	Private	Escarpments	37
27	5S 6W	28	Uintah	Private	Escarpments	52
28	6S 6W	05	Uintah	USFS	Escarpments	36
29	6S 7W	12	Uintah	Private	Escarpments	32
30	6S 7W	13	Uintah	USFS	Escarpments	118
31	6S 7W	14	Uintah	Private	Escarpments	33
32	6S 7W	14	Uinta	USFS	Escarpments	111
33	6S 7W	28	Uintah	USFS	Escarpments	159

Survey Area Block Number	Township/ Range	Section	Meridian	Land Ownership	Ecoregion	Acres
34	6S 7W	21	Uintah	USFS	Escarpments	82
35	6S 7W	11	Uintah	USFS	Escarpments	46
36	7S 7W	06	Uintah	USFS	Escarpments	43
37	7S 7W	06	Uintah	USFS	Wasatch Montane Zone	39
Total						**2,203**

Note: BLM = Bureau of Land Management, E = East, S = South, SITLA = School and Institutional Trust Lands Administration, USFS = U.S. Forest Service, W = West.

1.1.2 *Whitmore Park Proposed Route*

From west to east, the Whitmore Park Proposed Route begins in Kyune near US 6 and north of Price in Utah County. It then trends east to a point approximately 9 miles northeast of Castle Gate, at which point it trends northeast across Duchesne County, paralleling US 191 through Indian Canyon. South of Duchesne, it begins to trend east, running parallel to and south of US 40. It terminates at two points, near Leland Bench and southeast of Myton (Figure 2; see Appendix A, Figures A-17 through A-34). The final edits to this proposed route excluded any lands administered by the BLM. However, the route that SWCA used to determine the survey area blocks predated the final route selections and is presented below.

This proposed route coincides with the Indian Canyon Proposed Route for the majority of its length, with the exception of the section from approximately 5.5 miles northeast of Castle Gate to approximately 12 miles northeast of Castle Gate.

The Whitmore Park Proposed Route incorporates engineering changes intended to address challenging areas along the Indian Canyon Proposed Route. The Whitmore Park Proposed Route is similar to the Indian Canyon Proposed Route, with three significant changes:

- Emma Park Road: In an effort to reduce impacts on Indian Head Ranch (based on property owner comments), the proposed alignment has been shifted to run along the Emma Park Road corridor, a preexisting and previously impacted roadway.
- Whitmore Park: Based on geotechnical survey and property owner feedback, the proposed alignment was changed to bypass 19 property owners and a slide area by introducing a 1-mile-long tunnel. These alterations also resulted in a better crossing over US 191, requiring less fill and resulting in a bridge height closer to standard.
- Duchesne Mini-Ranches: Based on property owner feedback, the proposed alignment was shifted south to bypass all current homes in the subdivision by at least 1,000 feet. This shift allows for similar railway operation and results in less impact to property owners and fewer at-grade road crossings.

The Whitmore Park Proposed Route overlaps the Wells Draw Proposed Route at its west and east ends. On the west end, it overlaps the Wells Draw Proposed Route from its beginning until approximately 5.5 miles northeast of Castle Gate, when the routes diverge. It also intersects with the Wells Draw Proposed Route at three points on the east end of the corridor, although the two proposed routes do not coincide for a significant distance on that end.

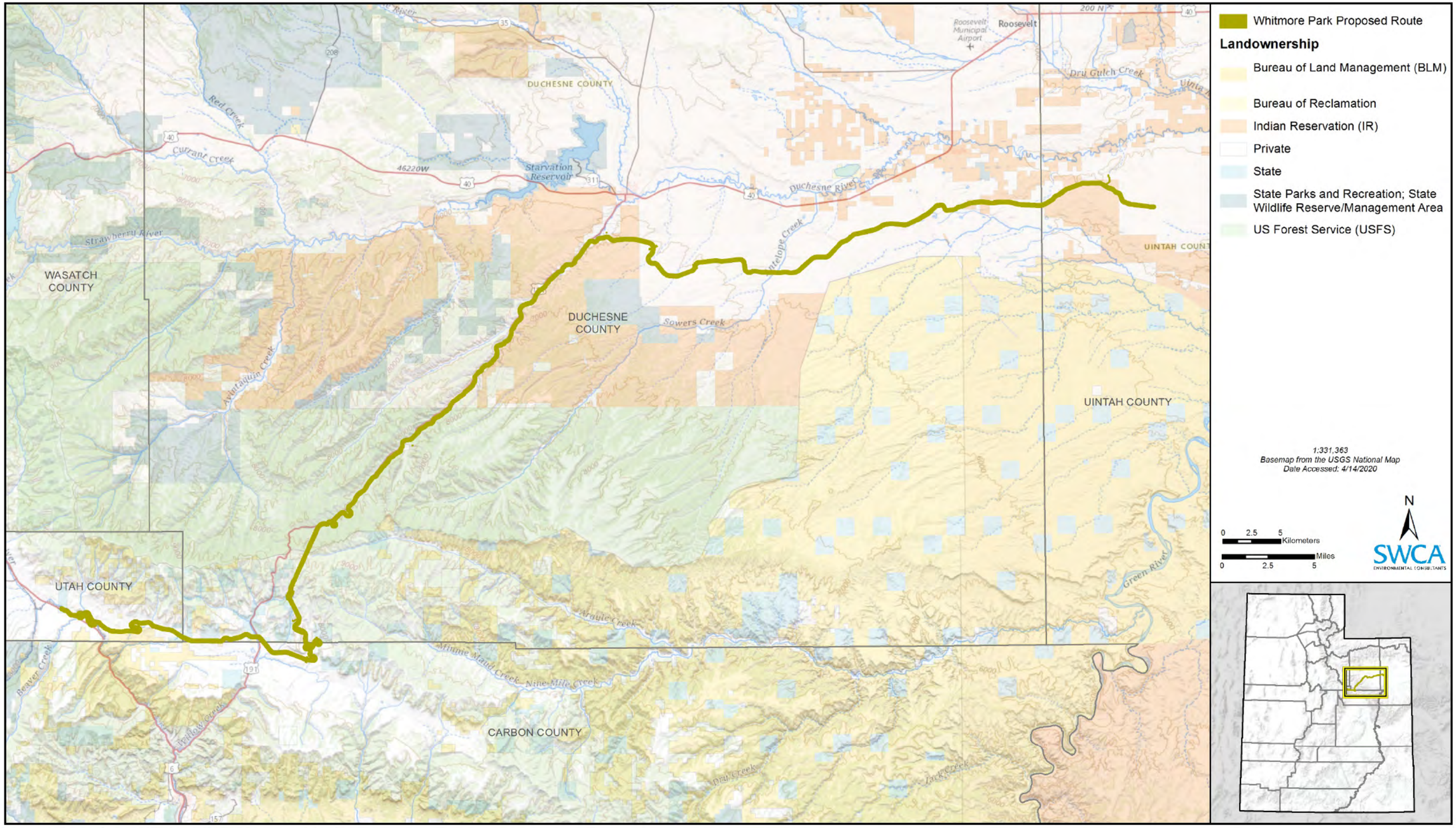

Figure 2. Overview of Whitmore Park Proposed Route.

This page intentionally left blank.

The Whitmore Park Proposed Route passes through four counties: Carbon, Duchesne, Uintah, and Utah. Within those four counties, the proposed route corridor is on the following lands:

- Private lands
- Ute Tribal lands
- Public land regulated by the BLM
- State land regulated by SITLA
- Public land regulated by the USFS

The surveyed portion of the Whitmore Park Proposed Route consists of five survey area blocks totaling 98 acres (Table 2). The shapefiles used to identify the archaeological survey area blocks for the Whitmore Park Proposed Route are displayed on the results maps and were received from HDR on September 27, 2019. Although sample survey areas were selected using the earlier shapefile and archaeologists surveyed within this original corridor. SWCA used the February 12, 2020, shapefiles to create all Whitmore Park maps in order to reflect the most current proposed route. The survey area blocks vary in size and represent the Mountain Valleys and Semiarid Benchlands and Canyonlands ecoregions (see Appendix A, Figures A-17 through A-33).

Table 2. Whitmore Park Proposed Route Survey Area Blocks, Public Land Survey System Location and Meridian, Landowner, Ecoregion, and Acreage

Survey Area Block Number	Township/ Range	Section	Meridian	Land Ownership	Ecoregion	Acres
1	12S 10E	07	Salt Lake	BLM	Mountain Valleys	3
2	12S 10E	09	Salt Lake	BLM	Mountain Valleys	8
3	12S 10E	09	Salt Lake	BLM	Mountain Valleys	1
4	12S 10E	10	Salt Lake	Private	Mountain Valleys	31
5	4S 4W	26	Uintah	Private	Semiarid Benchlands and Canyonlands	55
Total						**98**

Note: BLM = Bureau of Land Management, E = East, S = South, W = West.

1.1.3 *Wells Draw Proposed Route*

From west to east, the Wells Draw Proposed Route begins in Kyune, near US 6 and north of Price in Utah County. It then trends northeast before running east, starting at a point approximately 12 miles northeast of Castle Gate, and roughly parallels Nine Mile Canyon Road before running to the north of Argyle Canyon at a point approximately 24 miles northeast of Sunnyside, Utah (which would be accessed by tunneling through the West Tavaputs Plateau). It terminates at two points, near Leland Bench and southeast of Myton (Figure 3; see Appendix A, Figures A-35 through A-52).

This page intentionally left blank.

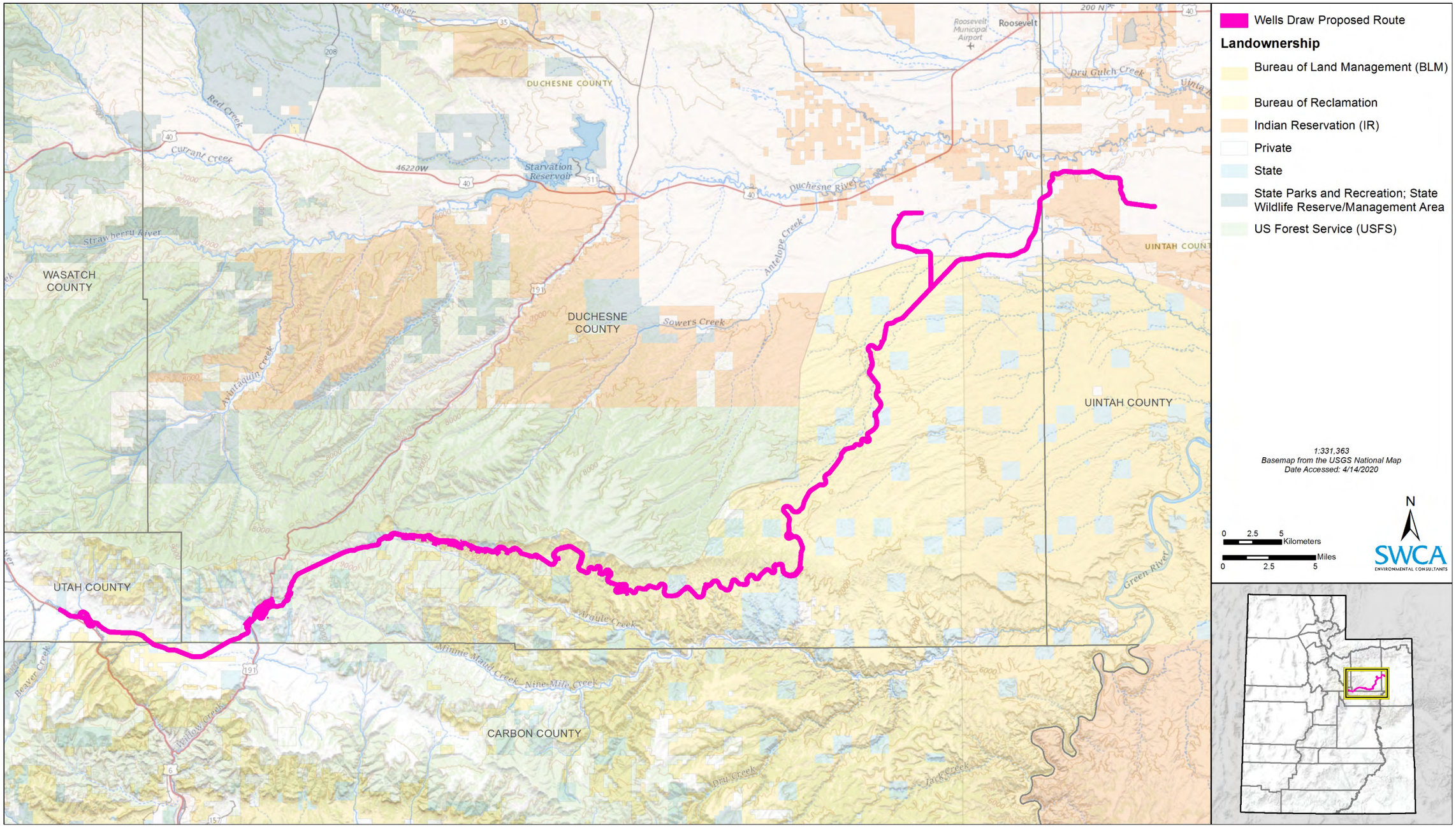

Figure 3. Overview of Wells Draw Proposed Route.

This page intentionally left blank.

This proposed route intersects with the Indian Canyon Proposed Route at its west and east ends. On the west end, it overlaps with the Indian Canyon Proposed Route from its beginning until approximately 12 miles northeast of Castle Gate, where the proposed routes diverge. It also intersects with the Indian Canyon Proposed Route at three points on the east end of the corridor, although the two proposed routes do not coincide for a significant distance on that end. It also intersects with the Whitmore Park Proposed Route on the west and east ends. On the west end, it overlaps with the Whitmore Park Proposed Route from its beginning until approximately 5.5 miles northeast of Castle Gate, where the proposed routes diverge. It also intersects with the Whitmore Park Proposed Route at three points on the east end of the corridor, although the two proposed routes do not coincide for a significant distance on that end.

The Wells Draw Proposed Route passes through four counties: Carbon, Duchesne, Uintah, and Utah. Within those four counties, the proposed route corridor is on the following lands:

- Private lands
- Public lands regulated by the BLM
- State lands regulated by SITLA

The surveyed portion of the Wells Draw Proposed Route consists of 19 survey area blocks totaling 950 acres (Table 3). Although these sample survey areas were selected using the earlier shapefile and archaeologists surveyed within this original corridor, SWCA used the November 22, 2019, shapefiles to create all Wells Draw maps in order to reflect the most current proposed route. The survey area blocks represent the Escarpment, Semiarid Benchlands and Canyonlands, Uinta Basin Floor, and Wasatch Montane Zone ecoregions.

Table 3. Wells Draw Proposed Route Survey Area Blocks, Public Land Survey System Location and Meridian, Landowner, Ecoregion, and Acreage

Survey Area Block Number	Township/ Range	Section	Meridian	Land Ownership	Ecoregion	Acres
1	11S 11E	08	Salt Lake	Private	Wasatch Montane Zone	35
2	11S 11E	09	Salt Lake	Private	Wasatch Montane Zone	47
3	11S 11E	02	Salt Lake	SITLA	Escarpments	25
4	11S 11E	01	Salt Lake	Private	Escarpments	31
5	11S 11E	01	Salt Lake	Private	Escarpments	27
6	11S 12E	06	Salt Lake	BLM	Escarpments	24
7	11S 12E	05	Salt Lake	BLM	Escarpments	27
8	11S 13E	24	Salt Lake	BLM	Escarpments	184
9	11S 14E	18	Salt Lake	BLM	Escarpments	26
10	11S 14E	15	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	35
11	11S 14E	22	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	85
12	11S 14E	13	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	51

Survey Area Block Number	Township/ Range	Section	Meridian	Land Ownership	Ecoregion	Acres
13	11S 15E	10	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	69
14	10S 15E	22	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	50
15	10S 15E	22	Salt Lake	BLM	Semiarid Benchlands and Canyonlands	21
16	9S 16E	32	Salt Lake	SITLA	Semiarid Benchlands and Canyonlands	69
17	9S 16E	19	Salt Lake	BLM	Uinta Basin Floor	44
18	9S 16E	18	Salt Lake	BLM	Uinta Basin Floor	37
19	8S 16E	26	Salt Lake	BLM	Uinta Basin Floor	62
Total						**950**

Note: BLM = Bureau of Land Management, E = East, S = South, SITLA = School and Institutional Trust Lands Administration.

Portions of the survey areas were not intensively surveyed but were visually inspected with binoculars for cultural resources from the closest, safe distance (i.e., a reconnaissance-level survey) due to safety concerns related to steep slopes (Table 4). See Appendix C for survey results maps showing areas surveyed at a reconnaissance level.

Table 4. Number of Acres Surveyed by Route[*]

Proposed Route	Total Route Acreage[†]	Field-Surveyed Acres within Each Route (percentage)[†]	Acreage Surveyed at Intensive Level[†]	Acreage Surveyed at Reconnaissance Level[†]
Indian Canyon	9,809.24[*]	821 (8.37%)	658	163
Whitmore Park	10,609.47[*]	763 (7.19%)	604	159
Wells Draw	13,191.97[*]	1,394 (10.57%)	1,013	381

[*] Mapping and geographic information system calculations for this report used Universal Transverse Mercator North American Datum 83 Zone 12 coordinate system, which is preferred by land management agencies for cultural resources surveys and repor ing; thus, acreages may vary by +/- 5 acres from calculations in other reports.

[†] Acreages and percentages were calculated using the February 12, 2020 shapefiles; however, fieldwork was conducted using earlier shapefiles. These numbers only reflect total acres within the February 12, 2020, shapefiles.

2 ENVIRONMENT

The Uinta Basin physiographic unit is a broad east-west-trending asymmetric basin located at the northern edge of the Colorado Plateau in northeastern Utah (Marsell 1964:30; Stokes 1986:231). It is within the transitional zone between the northern Colorado Plateau, the northwestern Plains, the Rocky Mountains, and the eastern Great Basin. A significant amount of the central portion of the Uinta Basin could be described as typical desert with annual precipitation less than 10 inches and elevations between 5,000 and 6,000 feet (Marsell 1964:29). It is bounded on the west by the High Plateaus province, on the northwest by the eastern slopes of the Wasatch Mountains, and on the north by the Uinta Mountains, where the border of the basin reaches 7,000 feet (Marsell 1964:30–31). The southern boundary rises steadily from an elevation of 5,700 feet at the town of Duchesne to over 9,000 feet at the rim of the West Tavaputs Plateau. The eastern boundary is not easily defined and extends into northwestern Colorado (Marsell 1964:30–31).

The core of the Uinta Mountains is Precambrian Uinta sandstone and quartzite with the High Uintas being characterized by extensive glaciated features, deep cirques, lakes, and moraine deposits (Johnson and Loosle 2002:1). Modern geographic strata are steeply angled in the Uintas with progressively younger sedimentary strata exposed as one travels north or south from the mountain crest along marginal benches. The southern slope descends to the Uinta Basin and has an extensive mid-elevation bench that is 7.5 to 15.5 miles wide, with elevations on the bench ranging from 8,000 to 9,500 feet (Johnson and Loosle 2002:1–3; Madsen et al. 2000).

The Uinta Basin climate is semiarid to arid. Modern total annual precipitation varies from 12 inches at the southern edge to 40 inches in the higher elevation areas, with an average across the watershed of 25 inches, mostly occurring as winter snow (Marsell 1964:31). The Uinta Basin is divided into six topographically distinct areas (Clark 1957:19; Marsell 1964:35): the northeastern district; the central badlands district; the Tavaputs Plateau; the upper Duchesne River Plateau; the Green River Valley; and the Douglas Creek area.

The basin is part of the Uinta Basin Province of the Northern Great Plains Faunal Area with modern floral species dominated by taxa that are common in the Upper Sonoran Life Zone but that vary according to elevation, aspect, and soil type (Spangler 1995:7). Desert scrub is the dominant vegetation community located in lower elevation areas (less than 5,000 feet) such as the central Uinta Basin, the northern slope of the Tavaputs Plateau, and the Desolation Canyon area; desert scrub in these areas is dominated by shadscale, greasewood, saltbush, and various grasses. Pinyon-juniper zones are present in mid-elevation areas (5,000 to 7,000 feet) such as the southern foothills of the Uinta Basin and the higher elevations of the Tavaputs Plateau; these zones are dominated by pinyon pine, Utah juniper, big sagebrush, rabbitbrush, greasewood, and grasses. Above 7,000 feet, alpine zones are present, with aspens, firs, spruce, pine, mountain mahogany, and grass meadows dominating in the Uinta Mountains and the western portion of the Tavaputs Plateau. All three major communities are interspersed with riparian communities with cottonwood, willow, greasewood, and tamarisk dominating (Spangler 1995:7–8). It is important to stress that for the Uinta Basin a lack of effective moisture and the high salinity of soils create sparse vegetation throughout much of the area. This fragile vegetation cover is further affected by heavy erosion of abundant shales. For these reasons, the high salinity of soils has favored the growth of halophyte species adapted to shallow soils and cold temperatures (Spangler 1995:8).

The Uinta Basin is drained by three major streams and associated tributaries. The Duchesne River flows east and the White River runs west. The Green River crosses the Uinta Mountains, the Uinta Basin, and the East Tavaputs Plateau before running over the Roan, or Brown, Plateau and Book Cliffs areas (Marsell 1964:30). Archaeological evidence of prehistoric human occupations is most prevalent in the riparian areas of the Uinta Basin where access to water, soils conducive to horticulture, and abundant wild plant resources are found (Spangler 1995:8). Riparian communities are located along the Green River, which dissects the area from north to south as well as the smaller Strawberry, Duchesne, Lake Fork, White, and Uinta Rivers and perennial streams (Spangler 1995:8).

The Uinta Basin contains more than 300 animal species (Spangler 1995:10), but fewer than two dozen are documented from archaeological contexts. The most extensive faunal records have been recovered from Caldwell Village (Ambler 1966) and Deluge Shelter (Leach 1970). Identified species from Caldwell Village include bushy-tailed woodrat, white-tailed prairie dog, house mouse, beaver, coyote, red fox, mule deer, pronghorn, mountain sheep, and unidentified birds. The Deluge Shelter assemblage also includes muskrat, cottontail rabbit, jackrabbit, beaver, squirrel, marmot, bobcat, elk, bison, unidentified mollusks, birds, and fish. Throughout the Uinta Basin, archaeological assemblages are dominated by deer and rabbit with lower proportions of bison, elk, and antelope (Spangler 1995:10). The exploitation of amphibians and reptiles is well known from ethnographic contexts, but these remains are rarely recovered archaeologically in the region (Spangler 1995:11).

For the Uinta Mountains, Johnson and Loosle (2002:7–11) found evidence of prehistoric human occupation to be concentrated in "locales" based on access, slope, aspect, and resource potential; therefore, they use the descriptive terms "canyons," "low benches," "intermediate benches," "mountain benches," and "high lakes/Uintas divide" to differentiate between locales in the Uinta Mountains region. The canyons locales are present at 4,500 to 6,000 feet and include basins, canyon bottoms, floodplains, and stream terraces. Most sites in these locales are identified on stream terraces or canyon walls, likely as a result of geomorphological factors, with sites in floodplains being eroded or deeply buried by colluvial deposition and seasonal flooding (Johnson and Loosle 2002:8). Because the canyons locales offer a growing season potentially long enough to produce corn and squash, residential or farming bases were likely concentrated there. The low benches locales occur from 6,000 to 6,600 feet and are extensive along the eastern side of the Green River on the northern slope of the Uintas. Dutch John, a low bench locale, has evidence of use since 8000 B.P. (6050 B.C.) (Johnson and Loosle 2002:8; Loosle et al. 2000). The intermediate benches locales are present from 6,600 to 7,200 feet and are extensive along the southern slope of the Uintas; these benches provide important winter range for deer and elk during mild winters. The mountain benches locales are present between 7,900 and 8,900 feet, including an extensive marginal bench along much of the otherwise steep northern slope of the Uintas and small knolls, stream terraces, and ledges near water sources and a wide variety of summer and fall subsistence resources (Johnson and Loosle 2002:10). The high lakes/Uintas divide locales encompass alpine zones between 9,500 and 12,000 feet and have small lakes, streams, and wet meadows present. Archaeological evidence from these locales are concentrated on the southern slope and often near streams or mountain lakes (Johnson and Loosle 2002:12).

3 CULTURAL CONTEXT

The following presents a culture history of the Uinta Basin and vicinity based on an examination of extant archaeological, ethnographic, and historic records. To facilitate this review, four prehistoric periods are designated and employed: the Paleoarchaic, Archaic, Formative (Fremont), and Late Prehistoric/Ethnohistoric. These periods have been determined primarily by differences in artifact assemblages and do not necessarily represent a specific culture or adaptation (Grayson 1993; Madsen and Simms 1998). Similarly, the ensuing synopsis of regional history is divided into four periods: Early Exploration and Settlement, Industry and Growth, The Great Depression and World War II, and Postwar.

3.1 Prehistoric Context

This overview of prehistory affords only a brief synthesis to set a general backdrop for the results of the archaeological resources study area. References for more comprehensive overviews on regional prehistory are presented in Table 5, and reviews of the history of archaeological research in the region can be found in Gatenbee and Beck (2017) and Spangler (1995, 2002). Some discussions incorporate data from neighboring contexts, which are cited below where appropriate.

Table 5. References for Previously Published Regional Prehistoric Overviews and Syntheses by Period

Period	References
Overall archaeological record/prehistory	Aikens and Madsen (1986), Frison (1991), Gatenbee and Beck (2017), Grady (1984), Grayson (1993, 2011), Jennings (1978), Simms (2008), Reed and Metcalfe (1999), Spangler (1995, 2002)
Paleoarchaic	Beck and Jones (1997), Madsen et al. (2015), Schroedl (1991)
Archaic	Jennings et al. (1980), Kelly (1997), Spangler (2000b)

Period	References
Formative (Fremont)	Madsen and Simms (1998), Marwitt (1986), Spangler (2000a, 2000b)
Late Prehistoric/Ethnohistoric	Callaway et al. (1986), Reed (1994), Steward (1938), Stewart (1942)

3.1.1 *Paleoarchaic Period (ca. 10,000–6000 B.C.)*

The Paleoarchaic period marks the waning years of the Pleistocene and the onset of human occupation in the eastern Great Basin and Colorado Plateau corresponding roughly with the beginning of the Younger Dryas stadial approximately 13,000 calendar years ago (Beck and Jones 2001; Grayson 2011). Regional environmental and biotic records indicate that the period was cool and moist and remained so until desertification took hold near the early to middle Holocene transition ca. 8,500 radiocarbon years ago (6550 B.C.) (Grayson 1993, 2011; Madsen et al. 2001; Schmitt and Lupo 2016). This Late Pleistocene climate supported various species of large mammals such as bison, mammoths, camels, and ground sloths, and traditional interpretations of human behavior from this period have suggested that human populations focused on the exploitation of these large mammals (Grayson 2016; Grayson and Meltzer 2015). Diagnostic artifacts from this period, such as fluted Clovis and Folsom points, have been recovered in association with the remains of several species of large mammals in other portions of North America. In fact, this period is generally characterized by a reliance on big game hunting, small populations, and high mobility (Fagan 1991). For the Uinta Basin, however, Spangler (2002:225–226) points out that Paleoindian and Archaic lifeways have not been demonstrated to be significantly different, and the term *Paleoarchaic*, which is typically also used to describe Great Basin foragers during this period (Madsen 2007), may be more appropriate.

In the Uinta Basin, evidence of Paleoarchaic occupation has generally been inferred because archaeological sites with dateable materials have not been documented to any great extent (Patterson et al. 2011; Spangler 1995, 2000a:50). Instead, the record consists of a few diffuse, open lithic scatters and especially isolated projectile points that usually lack associated buried deposits (Beck and Jones 1997). Occupations dating to terminal phases of the Paleoarchaic period are slightly better known. Several different complexes have been defined for this period in the Uinta Basin and indicate the presence of Agate Basin, Hells Gap, Alberta, and Cody complex occupations that reflect influences from the northwestern Plains (Frison 1991; Spangler 2002) and possibly more westerly influences associated with the Western Stemmed tradition (Madsen et al. 2015:9–21).

A lack of Paleoarchaic-aged materials in the Uinta Basin makes it difficult to infer the exact nature of human behavior during this period, particularly during the earlier portions characterized by fluted points. The discovery of Paleoarchaic projectile points in the Uinta Basin implies that Paleoarchaic peoples used the area, but the exact nature of their presence is not well understood and remains the subject of additional research and debates (Spangler 1995:345, 2002:224–225). Because data for the period in the Uinta Basin are currently limited, any Paleoarchaic sites encountered in the survey area would have significant data potential and could contribute to furthering our understanding of Paleoarchaic occupations in the region, especially sites with stratified deposits or dateable material, or both.

3.1.2 *Archaic Period (6000 B.C.–A.D. 550)*

The Archaic period encompasses some regional shifts in climate and biotic communities and a nearly 7,000-year record of prehistoric human activity. To conceptualize such a vast span of time, researchers have typically divided the Archaic period into subperiods identified as the Early Archaic, Middle Archaic, and Late Archaic. Although some variation in the archaeological record is observable across these

subperiods, they are, for the most part, simply convenient analytical tools used to partition this vast time depth. The Early Archaic and Middle Archaic correspond to the relatively hot and arid middle Holocene that was originally described as the Altithermal by Antevs (1948). For the eastern Great Basin and northern Colorado Plateau regions, available climate records for the middle Holocene suggest an increase in mean temperatures and general aridity relative to the early Holocene (Grayson 2000, 2011; Reheis et al. 2005).

The Archaic period has been described as a time when generations of prehistoric populations followed broadly similar hunting and gathering lifeways with distinct regional adaptations to local environmental conditions (Spangler 1995:351). Contrasting with the purported pursuit of big game species that often characterized the earlier Paleoarchaic period, the Archaic has traditionally been defined as a period in which hunter-gatherer populations emphasized a broad-spectrum pattern of resource exploitation that encompassed a wide array of plant and animal species. In the Uinta Basin and vicinity, there is evidence that human occupation increased during this time (Spangler 1995, 2002).

3.1.2.1 EARLY ARCHAIC PERIOD (6000–3000 B.C.)

The Early Archaic period (6000–3000 B.C.) is poorly represented in the archaeological record of the Uinta Basin. Spangler (2000a:50) reports seven radiocarbon dates attributable to Early Archaic occupations, six of which came from sites in the Douglas Creek arch area of northwestern Colorado. Sites from the surrounding regions that date to this period, such as the northwestern Plains, are more numerous, and evidence of human abandonment of portions of the Great Basin and the Colorado Plateau may suggest that the Uinta Basin was also sparsely populated during this phase. Most of these dates come from isolated thermal features with few associated temporally diagnostic artifacts such as Pinto Series, Humboldt, Elko Series, and various large side-notched points; these features have been interpreted as temporary camps and lithic scatters (Spangler 2000a:50). Current evidence from locations in the lower White River drainage, along the Green River, and in other Uinta Basin contexts indicates sporadic use of the area by highly mobile groups that exploited a broad range of resources. Currently, the presence of Elko and Pinto Series projectile points indicates use of the area by groups that appear to reflect Great Basin subsistence patterns, as opposed to influences from the northwestern Plains and northernmost portions of the Colorado Plateau (Spangler 1995:378, 2002:250).

3.1.2.2 MIDDLE ARCHAIC PERIOD (3000–500 B.C.)

The Middle Archaic period (3000–500 B.C.) is distinguished from the Early Archaic in the Uinta Basin by an apparent increase in human population densities (Spangler 2002:251–252), although population size remained low compared to the Late Archaic (Hora-Cook 2017). Many sites dating to this period have been identified, including a number of sites associated with the Yampa River and its tributaries in northwestern Colorado (McDonald and Metcalf 2000). The increased use of this area was likely facilitated by a return to relatively favorable mesic climatic conditions and an expansion of resource patches as grasslands spread and ungulates followed (Frison 1991; Jennings et al. 1980). Middle Archaic sites are often characterized by the presence of McKean complex and Elko Series projectile points that suggest influences from the northwestern Plains and Great Basin, respectively. Although a large part of the tool assemblage from this period implies an emphasis on hunting, a greater presence of ground stone artifacts such as manos and slab metates suggests an increased use of plant resources (Spangler 1995:392). Generally, the settlement-subsistence pattern seen during the Middle Archaic is characterized by a high degree of mobility; however, evidence from sites in the Uinta Basin such as Thorne Cave (42UN469) (Day 1964) and Deluge Shelter (42UN178) (Leach 1967, 1970) indicates the use of semipermanent encampments to exploit locally available resources. Moreover, archaeological evidence from this period suggests the use of different environmental zones such as high-altitude and riverine settings, indicating the development of a seasonally based pattern of mobility and subsistence.

3.1.2.3 LATE ARCHAIC PERIOD (500 B.C.–A.D. 550)

The Late Archaic period (500 B.C.–A.D. 550) has generally been characterized as a transitional period from an Archaic hunter-gather subsistence pattern to the horticultural pattern of later periods. Human population densities in the Uinta Basin appear to have increased, likely in response to more hospitable mesic climates (Hora-Cook 2017). Spangler (2002:278) tentatively defines the Late Archaic as a period when the reliance on wild plant and animal resources was comparable to dependence on domesticated foods. The archaeological record from this period reflects influences from both the Great Basin and the northwestern Plains. The Late Archaic material assemblage is characterized by the decrease of McKean complex projectile points and the increase of Elko Series types (Spangler 2002:282). The Rose Springs type that developed along with the introduction of the bow and arrow appeared in the region ca. 50 B.C., although atlatl technology (inferred primarily from the presence of Elko Series darts) continued to be used after the bow and arrow became part of the toolkit (Spangler 2002:301). Hunting and gathering activities from this period are represented at numerous sites near Browns Park, in Clay Basin, and in Dinosaur National Monument. Analysis of these sites suggests increased seasonality in hunting and gathering, and there is some evidence of extended periods of occupation, which likely indicates the development of more complex logistical organization within the regional settlement-subsistence pattern (Spangler 2002).

Although the pattern of mobilized hunting and gathering by Late Archaic groups remains consistent across the Uinta Basin, evidence of temporary and permanent architecture begins to appear in the archaeological record (Spangler 1995, 2002). Sites such as Cockleburr Wash (42DA393) and Steinaker Gap (42UN2004) show evidence of shallow, circular surface depressions that likely indicate semipermanent housing as early as 300 B.C. Other sites such as Burnt House Village (42UN118) show evidence of permanent architecture that includes semisubterranean structures with compacted earthen floors, internal fire pits, and storage pits beginning around A.D. 50 (Biggs 1970). Many of these sites contain chipped stone and ground stone assemblages indicating hunting and gathering activities, and ca. A.D. 250 maize samples from some of these sites (e.g., Browns Park and Steinaker Gap) suggest the use of horticultural resources during the Late Archaic. As Spangler (2002:301) notes, the construction of semipermanent and permanent architecture and the use of maize and other horticultural resources in the Uinta Basin mark the transition to more complex forms of habitation and subsistence that continued into later periods. Although a substantial number of Archaic period sites have been identified in and adjacent to the Uinta Basin, any additional Archaic materials may provide significant data that could further our understanding of Archaic occupations and subsistence patterns in the region.

3.1.3 *Formative Period (A.D. 550–1300)*

Archaeologically, the Formative (or Fremont) period is by far one of the most interesting and consequently most intensively scrutinized periods in regional prehistory. It is largely defined by farming, but peoples of the period employed various subsistence methods in many different places. The early Formative period overlaps with the end of the Late Archaic period and encompasses the time span from approximately A.D. 550 to A.D. 1300 in the Uinta Basin (Spangler 2000a:49), during which time human populations continued to increase until peaking ca. A.D. 700 to A.D. 900 (Hora-Cook 2017; Massimino and Metcalfe 1999:Figure 9). During the latter portion of the first millennium A.D., portions of the eastern Great Basin and surrounding regions exhibit an apparent intensification of horticulture and sedentary lifeways. This intensification is reflected in the expansion of more permanent architecture and growth in the size, frequency, and complexity of related storage structures. Ceramic (gray ware) pottery also appears at about this time and doubtless represented a significant contribution to the toolkit because it could be employed in a variety of tasks, including resource acquisition, storage, and processing.

Throughout the greater Fremont area, Fremont occupations most commonly date anywhere from A.D. 300 to A.D. 1300, with evidence for Fremont occupations in the Uinta Basin beginning at approximately

A.D. 550 (Madsen and Simms 1998; Marwitt 1986; Spangler 2002). Traditionally characterized as a "culture" (Morss 1931) with several variants (e.g., the San Rafael and Uinta Basin variants) (Lyneis 1994), the Fremont culture has been reconceived as a "complex" (Madsen and Simms 1998). The Formative period in the Uinta Basin is referred to as the Fremont complex, although some evidence for the presence of other contemporaneous cultures has been found in the region (Talbot and Richens 2004). Typical Fremont material culture—pottery, cultigens, pit structure dwellings, and basketry—varies from site to site and therefore may not indicate a culture in the sense of an ethnic group. Instead, what has traditionally been referred to as Fremont culture is more likely a host of traits and activities that varied over the entire region. In particular, Fremont subsistence behavior is highly variable and can encompass "full-time sedentary farmers, full-time mobile foragers, sedentary foragers, seasonal farmer-foragers, and people who could have been all of these at one time or another in their lives" (Marwitt 1986).

At Steinaker Gap (42UN2004), near Vernal, Utah, pit houses dating between A.D. 250 and A.D. 600 show evidence for the site's possible use by Anasazi Basketmaker peoples as an immigrant outpost (Talbot and Richens 2004). Beginning in A.D. 250 and persisting until Fremont occupations appear across the region, the site was a hamlet of lightly built residential structures and bell-shaped maize storage pits typical of Basketmaker II sites in the Four Corners area; this site also has evidence of the earliest irrigation ditches in the region. Inhabitants farmed small plots and foraged from surrounding areas while obtaining nearly half of their calories from maize, as evidenced from stable isotope data recovered from burials interred in the bell-shaped storage features (Simms 2008:211). Other sites, such as Caldwell Village (42UN95), show evidence for Fremont village life with large accumulations of wealth and privatization evidenced by storage inside houses rather than exterior (i.e., publicly displayed) storage features (Ambler 1966; Simms 2008:214). Stable isotope data from Caldwell Village burials showed maize contributed 73 to 85 percent of the diet. Although 22 pit houses were found at the site, only a few were used at a time, thereby suggesting a complex pattern of habitation, abandonment, and re-habitation of the site (Ambler 1966; Simms 2008:188–189). Such a pattern, characteristic of the Fremont described by Madsen and Simms (1998), indicates that groups adapted to varying levels of foraging and horticulture, with Fremont people switching among strategies and farmers and foragers living in symbiosis with one another.

The Fremont appear to have occupied the Uinta Basin later than other areas of the Great Basin and the northernmost rim of the Colorado Plateau. Material culture consistent with the Fremont complex has been dated in the Uinta Basin from shortly after A.D. 550 through at least A.D. 1300 (Johnson and Loosle 2002; Madsen and Simms 1998). Like Fremont groups in other regions, the Uinta Basin Fremont practiced horticulture, lived in permanent pit structures, and used a plain, limestone-tempered gray ware pottery. Some, however, continued foraging or switched between foraging and farming (Madsen and Simms 1998). The Uinta Basin Fremont differed slightly from other Great Basin groups, possibly due to the Uinta Basin's relative geographic isolation. As seen at sites such as Caldwell Village and Boundary Village (42UN236), the Uinta Basin Fremont built shallow, saucer-shaped pit houses and surface structures with off-center hearths and few or no surface storage structures (Barton 1998).

Spangler's (2000b) "Tavaputs Adaptation" describes Fremont occupations of the deep canyons of the East and West Tavaputs Plateau from A.D. 1000 to A.D. 1300 as being characterized by evidence for horticulture and maize storage with only seasonal sedentism and an absence of local ceramic production. Although the adaptation includes semisubterranean residential slabstone masonry architecture along stream terraces and on outcrops within deep canyons, the lack of significant midden accumulations and ceramics suggests short-term, likely seasonal occupations. In addition, large storage structures, which were difficult to access, and elaborately camouflaged and remote subterranean storage structures imply the production of surpluses, abandonment of the storage features, and possible violent human conflict and competition (Spangler 2000b). Nine Mile Canyon is well known for both its Fremont rock art panels and storage and living structures of stone masonry laid with mud mortar (Janetski 2008:107). The iconic

Pillings figurines—a set of 11 clay figurines made by Fremont artisans that closely resemble the anthropomorphs in much of their rock art—were found in 1950 in Range Creek Canyon (Pitblado et al. 2013). Among a few others, excavations at Windy Ridge Village (42EM73), Crescent Ridge (42EM74), and Power Pole Knoll (42EM75) (Madsen 1975) helped to establish local architectural and ceramic chronologies, and excavations at Steinaker Gap and Cub Creek (42UN84), the "classic" Fremont sites of the Uinta Basin, show evidence for intensive occupations from ca. A.D. 400 to A.D. 1000.

In general, Fremont sites in the Uinta Basin are distinguished from Fremont sites in other regions by two traits. First, the Uinta Basin Fremont appear to have lived in smaller social units because few large-scale Fremont villages have been found in the Uinta Basin (Marwitt 1986). Second, the use of lowland settings for horticultural practices was supplemented by use of higher elevation settings during brief logistical forays to obtain other resources. Settlements patterns likely reflected differences across the local topography, with Uinta Basin residential sites located in broad alluvial plains and on Pleistocene river terraces in the Uinta Mountain foothills (Ambler 1966; Shields 1967; Spangler 2000a:59). A number of upland Fremont sites contain ceramics, ground stone implements, and maize, suggesting simultaneous use of both upland and lowland areas (Johnson and Loosle 2002; Loosle et al. 2000; Nash 2012).

The available Uinta Basin data indicate that the Fremont stage ended ca. A.D. 1300 (Johnson and Loosle 2002; Madsen and Simms 1998). But because no Fremont residential sites have yielded dates after A.D. 1000, it appears that sedentary lifeways may have been abandoned while other aspects of the Fremont complex continued (Spangler 2000a:60). With the demise of the Fremont, intensive farming, storage, and use of pottery also appear to have declined in the Uinta Basin (Spangler 1995). The reasons for the demise of the Fremont complex have been the subject of archaeological research and debate, and any Formative period site identified as part of the Project would offer the potential to expand existing knowledge of the Fremont in the Uinta Basin vicinity, especially later period sites that might allow for a better understanding of the shift away from intensive farming and use of pottery.

3.1.4 *Late Prehistoric/Ethnohistoric Period (A.D. 1300–1800)*

The archaeological record of the Great Basin and the northeastern Colorado Plateau at the end of the Formative period is characterized by the decline of farming and a return to hunting and gathering. The migration of non-farming peoples into the region has traditionally been used to explain cultural transitions during this period. The so-called Numic expansion hypothesis proposes that Numic language speakers moved into the Great Basin region late in the prehistoric sequence (Reed 1994), replacing or subsuming people already living there (Bettinger and Baumhoff 1982; Lamb 1958).

It is commonly believed that the Numic-speaking Utes were the primary occupants of eastern and central Utah during the Late Prehistoric/Ethnohistoric period (Horn et al. 1994:130). Evidence from linguistic and archaeological investigations suggest that Numic-speaking peoples immigrated into the region ca. A.D. 1100 or shortly before the disappearance of the Formative-era sites, and researchers have historically attributed this to an expansion of Numic-speaking populations from the southwestern Great Basin (Spangler 1995:599). Currently, however, there is little consensus about the timing of the Numic expansion, why it occurred, the relationship of Numic-speaking populations to pre-existing populations, how settlement patterns and subsistence strategies differed from pre-Numic populations, and whether or not it occurred at all (Madsen and Rhode 1994). Indeed, as early as the 1930s, archaeologists like Julian Steward wrote about a distinctive stratigraphic break between archaeological deposits associated with the Fremont and ones associated with the people who came after (Simms 2008:231).

Evidence of occupation by Numic-speaking peoples during this time period includes rock art panels that could be attributed to Ute groups, occasional Numic ceramic (brown ware) sherds, and the recovery of at least one Numic-style basket in Nine Mile Canyon (Spangler 1995:173). At sites near Thompson and in

the San Rafael Swell, additional finds substantiate a Numic-speaking ethnohistoric presence in the area (Spangler 1995). Most notably, a bundle of Numic artifacts called the Sitterud Bundle was collected in 1999 in Emery County and found to contain leather sinew and cordage, a snare, leather leggings, some *Rhus trilobata* berries, and a number of bone and lithic tools (Benson 1982).

3.2 Historic Context

Several ethnohistoric accounts and histories of the Uinta Basin and vicinity are available. For more detailed information on regional ethnohistory see Callaway et al. (1986), Reed (1994), Steward (1938) and Stewart (1942). Barton (1998), Burton (1996), Holzapfel (1999), Oliver et al. (2017a, 2017b), and Watt (1997) provide syntheses of regional history, and Spangler (1995, 2002) provides comprehensive overviews of both periods.

3.2.1 *Early Exploration and Settlement (A.D. 1776–1880)*

The Early Exploration and Settlement period in the region encompassed A.D. 1776 to ca. 1880. Numic-speaking tribes were the dominant groups in the Uinta Basin when Europeans first entered the area (Embry 1996; Hampshire et al. 1998; Poll et al. 1989). The first documented occurrence of non-native peoples to visit northern Utah happened in 1776 when an expedition led by Spanish friars Francisco Atanasio Dominguez and Silvestre Vélez de Escalante visited northeastern Utah (May 1987:24). The expedition discovered both Ute and Shoshone Tribes occupying the Uinta Basin and Yampa Plateau region and that hostility existed between the two tribes, possibly due to competition for hunting resources (Barton 1998:19). Many other Euro-American groups soon followed, using the same route out of Santa Fe, New Mexico, up through the Green River into the Uinta Basin. Trade relationships were established with some of the local Native American groups in the Uinta Basin, and possibly the northern Colorado Plateau, whereby these groups provided other Native Americans in support of the Spanish slave trade in return for horses, weapons, and other new technologies and food (Spangler 2002).

The earliest Euro-American presence in the region is attributed to traders and fur trappers, who may have arrived as early as 1812. In 1828, the first Euro-American fort, Fort Reed, was established near the confluence of the Whiterocks and Uinta Rivers; it was sold in 1832 to Antoine Robidoux, who built a larger fort 100 yards to the northwest of the original. Robidoux, who also owned the Fort Uncompahgre trading post in present-day Gunnison, Colorado, dominated Uinta Basin fur trading for the next two decades (Burton 1996:61–62). Numerous trading posts were soon established across the region where pelts could be traded or sold. In 1837, Fort Davy Crockett was established in Browns Park, Utah, but was abandoned only 3 years later. Similarly, as many as four other fur trading posts were established and abandoned at various locations in the region between 1839 and 1844, including Fort Uintah and Fort Kit Carson (Spangler 1995:778–782; 2002:480–484). Some trappers aligned with local Native Americans and many Ute and Shoshone peoples benefited from the fur trade, trading pelts and other goods for weapons, iron utensils, and other items of use. But in the process of interacting with Euro-American trappers, many Native Americans were also exposed to new and often catastrophic diseases that reduced their overall health and ultimately their population (Alexander 1996:65; Sillitoe 1996:18). And Euro-Americans often treated the Utes poorly by cheating them on the price of furs, charging them inflated prices on goods, and kidnapping Ute women for slavery or prostitution (Barton 1998). By the early to mid-1840s, the fur trade in North America had declined significantly for two reasons: 1) changes in fashion, and 2) the high degree of exploitation of regions, leaving them nearly devoid of the animals sought by the fur trade (Burton 1996; Spangler 2002). In addition, Robidoux's unfair business practices antagonized local Native Americans; by 1844, the Utes had burned both his forts (Burton 1996:66). Many Euro-American fur trappers and traders became guides for government explorers and immigrants, whereas many Native

Americans who had become dependent on the fur trade became increasingly destitute (Burton 1996; Spangler 2002).

Following closely behind the collapse of the fur trade in the 1840s and the widely available accounts of the West by trappers and traders, the United States began looking west with the desire to expand the nation's territorial holdings (Spangler 2002). Numerous scientific expeditions were created and sent to the western United States. These expedition reports and descriptions available to the public caused increased interest in the region for settlement beginning in the mid-1850s. Additionally, shortly after the functional end of the fur trade in the Uinta Basin, a new group of Euro-Americans came to Utah: members of The Church of Jesus Christ of Latter-day Saints (Church of Jesus Christ or Church). The first group of Latter-day Saints, led by Brigham Young, arrived in the Salt Lake Valley in 1847 and quickly founded Salt Lake City. Extensive settlement of the Great Basin and the surrounding areas occurred over the following decades. These settlements were usually founded by members of the Church who were called upon to colonize outlying areas.

Three years after members of the Church of Jesus Christ settled in the Salt Lake Valley, the Compromise of 1850 created the Utah Territory. The leader of the Church, Brigham Young, acted as governor of the territory (Bringhurst 2012; May 1987). Although relations between the Latter-day Saints and the Utes were friendly at first, as Mormon settlements expanded south into Ute territory, the two groups began to clash. A series of aggressions and retaliations between the Utes and Latter-day Saints known as the Walker War continued for 10 months between 1853 and 1854. Although the Walker War ended in a peace agreement between Brigham Young and the Ute chief, Wakara, tensions continued. Latter-day Saint settlements rapidly developed areas across the new territory and, in 1861, Young sent an expeditionary group to the Uinta Basin to assess the region's potential for settlement (Burton 1996:82–83). This initial survey reported that the region lacked fertile valleys, meadows, or pasture ranges, and was "entirely unsuitable for farming purposes, and the amount of land at all suitable for cultivation extremely limited" (*Deseret News* 1861:4).

Although not fit for Church migrants due to these limitations, the 1861 expedition confirmed that the Uinta Basin was a suitable place to relocate the Ute Indians, as the land was deemed "valueless excepting for nomadic purposes, hunting grounds for Indians" (Barton 1998:49; Spangler 1995:700), and shortly thereafter, Abraham Lincoln issued an executive order establishing the Uintah Reservation. There was an increasingly tense period in the late 1850s and early 1860s that included the Tintic War in Juab, Tooele, and Millard Counties; the so-called Utah War; the beginning of the Civil War; and the Bear River massacre (Barton 1998:50). Church leadership petitioned the U.S. government to move the tribes onto the Uintah Reservation (Barton 1998:49; Spangler 1995:700). Motivated by Church pressure and related economic and demographic factors, the U.S. government forcefully moved several Ute tribes onto the Uintah Valley Reservation in 1864 (Barton 1998:49; Spangler 1995:700). Similarly, in western Colorado, a series of armed conflicts between miners and Utes led to the Colorado Ute tribes' removal to the Uintah Reservation beginning in 1877 (Barton 1998:57–64; Spangler 1995:699–709). By the early 1880s, most of the Colorado Utes were living on reservations in the Uinta Basin, sharing lands with the Uintah Utes. Not surprisingly, the loss of traditional lifeways and especially the movement of different Ute tribes into a geographically restricted and environmentally marginal area caused tension and conflict between the various tribes.

After the Civil War, increasing federal involvement in Utah affected the settlement patterns in the state. The first federal land office opened in Utah Territory in 1869, allowing the territory's residents to enter patents for federally held land. But the traditional Latter-day Saint settlement patterns did not mesh with the federal land system (Sauder 1996:59). Not only were Church farms usually organized in nucleated villages rather than in widely scattered individual holdings, as standard homesteading practices demanded, they were usually far smaller than the 160 acres dictated by the Homestead Act (Sauder

1996:59). As a result, after 1869, Latter-day Saint farming communities often turned to alternative strategies to continue their traditional community design and farming patterns, particularly through the use of trusteeships to gain title to land.

Despite the relative serenity suggested by various histories of early Latter-day Saint settlement, it is important to note that between the 1850s and 1870s, Utah was still very much in flux, particularly in terms of relationships between Euro-American settlers and Native American groups. Unfortunately, the very practice of settlement and agriculture that Latter-day Saints followed made conflict with Native Americans almost inevitable (Smaby 1975:41). Early livestock raising increased this problem as "competing pony, cattle, and sheep herds quickly depleted the grasses of settled valleys" (Cornia 1998:7). With increasing numbers of Latter-day Saint settlers, and with a corresponding disruption in the natural environment, traditional Native American ways of life were progressively threatened.

These changes led to increasing tensions between Euro-American settlers and Native Americans. With their resources depleted by the increase in population and their movements restricted by settlement and agriculture, Native Americans in the area were forced to curtail their hunting and gathering activities and subsist by other means. At a Manti town meeting between the Utes and Euro-Americans, John Lowery accused one Tribal member of stealing his horse and proceeded to beat the man severely (Bishop 1997:70; Hittman 2013:74–75). This act set off a series of raids, skirmishes, and chases referred to as the Black Hawk War, which lasted from 1865 to 1872. Although some sources allege that Utes from the Uinta Basin did participate in the conflict, no confirmation from a reputable historic source could be found. If indeed Utes did participate, their part in the fight was primarily limited to areas outside the Uinta Basin, and, after an early defeat by the Latter-day Saints at the Diamond Fork River, the leader, Chief Tabby-To-Kwanah was instrumental in working to establish peace between the Timpanogos Ute Tribe and the Latter-day Saint pioneers and he signed the Spanish Fork Treaty in 1865. He later led the Utes to the Uintah Reservation (Timpanogos 2019).). As a result of these raids and associated conflict over limited resources, "territorial officials, as well as Church leaders (one in the same during this period) realized the need to force Native Americans to leave their ancestral valleys" if the Latter-day Saint way of life was to achieve dominance (Cornia 1998:7).

By the early 1870s, the conflict had largely ceased, leaving Euro-American settlers the victors, and a new era of agricultural development in Utah—the rise of ranching—began. The first Latter-day Saint pioneers brought stock with them, but during the earliest years these animals were usually kept for subsistence (such as a family milk cow, poultry, and perhaps a few pigs) or for transportation and farming (such as a limited number of oxen, horses, or mules) (Walker 1964:184). By 1850, however, Latter-day Saints had begun to trade in cattle. Initially trading was mostly limited to supplying oxen to pull the wagons of "gold-seekers" en route to California rather than for meat, but by 1853, Latter-day Saints began to trade beef cattle (Walker 1964:183). This sort of trading continued to be limited, and cattle numbers remained low until the mid-1870s, when the increasing demand for meat in mining and railroad camps created a spike in the market. Although the demand initially resulted in the importation of cattle, particularly from Texas, by 1878, Utah was both helping to meet local demand and exporting beef to eastern markets (Walker 1964:185–186). Despite several setbacks, particularly the brutal winter of 1879–1880 that killed many stock animals, cattle numbers continued to increase during the 1880s and 1890s (Walker 1964:189). The earliest Euro-American settlements in the Uinta Basin depended on ranching, which came to involve crop raising for supplementary feed; as a result, the importance of livestock is a key aspect of Uinta Basin history.

3.2.2 *Industry and Growth (A.D. 1880–1928)*

By 1905, much of the Uintah Reservation was declared open to white settlement due to discoveries of mineral resources on the reservation and pressure by white settlers for new land, as stated under the

Dawes Act of 1887 (May 1987:106–109; Poll et al. 1989:367–368). This rapid growth of new Euro-American settlements across the northern Colorado Plateau also caused ever-increasing water reclamation activities (Oliver et al. 2017a). Beginning in 1872, settlers in the region began constructing irrigation ditches to carry water to their lands. Several of these ditches, such as Dodds Ditch. located north of Maeser, are still in use today (Burton 1996:295–296). The Uintah Indian Irrigation Project and the Dry Gulch Irrigation Company constructed most of the canals and reservoirs in the Uinta Basin after 1905 (Burton 1996:316). In turn, the construction of more canals and reservoirs made agriculture an increasingly attractive enterprise throughout the early 1900s (Spangler 1995, 2002).

The excellent winter conditions in the Uinta Basin allowed for the development of the livestock industry (both cattle and sheep) during the late 1800s. A lack of sufficient law enforcement allowed less legitimate enterprises to take hold between 1870 and the early 1900s. Cattle and horse rustling in particular became commonplace (Burton 1996:374). Because Browns Park was remote and difficult for law enforcement officials to enter undetected, many of the region's outlaws, including the infamous Wild Bunch led by Butch Cassidy, used the area as a place of refuge (Burton 1996:374). After 1898, increased cooperation between lawmen from Utah, Wyoming, and Colorado led to the decline of the outlaw era in Browns Park (Spangler 2002:493–495).

In addition to agriculture and ranching, the potential of mineral wealth brought numerous settlers to the region. The discovery of Gilsonite in 1888 led to one of the first large, commercial undertakings in the region. Gilsonite is a solid, lustrous, black hydrocarbon mineral that is found in large quantities in the Uinta Basin. It is used in more than 150 products, including printing inks, explosives, radiator paint, and automobile body sealer (Burton 1998:343). Numerous mines were established, and in 1904 the Gilsonite industry led to the construction of the narrow-gauge Uintah Railway, which was initially established as far as Dragon, Utah, with the intent of hauling Gilsonite to the main Denver and Rio Grande Western Railroad (Burton 1996:130–133). In 1911, the line extended northwest to Watson, Utah (Bender 1970:95). The Barber Asphalt Company constructed the Uintah Toll Road in 1905, which provided stage and freight wagon service between the towns and mines to the Uintah Railway (Bender 1970:95:57; Covington 1964; Hilton 1990). The toll road ran from Dragon to Vernal and Fort Duchesne and served both the booming Gilsonite and sheep (wool) industries (Spangler 2002:500). Other resources commonly extracted and transported by rail in Uintah County included coal, copper, gold, iron, oil, shale, silver, and asphalt. The Uintah Railway was discontinued in 1939, and resources were thereafter transported by truck. The old railroad bed "was utilized and was built into a road over Baxter Pass" (Covington 1964). The mining industry played (and continues to play) a significant role in the financial development of the Uinta Basin region (Burton 1996) by providing jobs, bringing valuable revenue through the purchase of goods and services, and providing tax revenue for Uintah County.

The development of the oil and gas industry has been of equal importance to the economy of the Uinta Basin. The first known exploratory oil drilling occurred in 1900 at the John Pope No. 1 well (Burton 1996:139). The venture proved unsuccessful, and further efforts in the area showed few positive results. Further exploration during the 1920s led to the discovery of a productive gas well between Jensen and Vernal near Ashley Creek; the ensuing establishment of the Ashley Field resulted in increased exploration throughout the Uinta Basin. In addition, early exploration and mining of oil shale began in 1921 but was discontinued shortly thereafter because the operation proved unfeasible (Burton 1996).

By 1910, several newly surveyed towns were established and settled, with individuals performing a variety of jobs, though farming made up most of the work in the region (Barton 1998). As town populations grew, so did the need for carpenters, merchants, laborers, teachers, and teamsters, just to name a few. Slowly and steadily the small communities in the Uinta Basin and northern Colorado Plateau grew in size and offered more services to inhabitants of the region. The economy also diversified beyond

ranching and agriculture to include timber extraction from the Uinta Mountains, mining of a number of resources, and freighting goods, people, and equipment to and from the region (Burton 1996).

Because of the various extractive industries in the Uinta Basin and the northern Colorado Plateau, infrastructure and workers to support these industries were needed. The Uintah Railway, a narrow-gauge railroad, was constructed in 1904 to haul Gilsonite from the Uinta Basin to Colorado (Burton 1996; Spangler 2002). The northern Colorado Plateau near Price and Helper, Utah, experienced a much greater economic benefit from the construction of the Denver and Rio Grande Western Railroad, which supported the growing coal mining industry and the growing population (Watt 1997). Several railway companies built rail lines in this region; some of the smaller companies were later bought out and consolidated by larger companies. The relationship between the coal mining industry and the railroads was mutually beneficial. Coal was transported out of the region using the railroads, at a profit to both coal and railroad companies (Holzapfel 1999; Watt 1997). Railroad companies expanded operations of their rail lines as well as encouraged coal companies to establish new mines that could then be connected to the rail system (Watt 1997).

The Denver and Rio Grande Western Railroad was constructed in Utah between 1881 and 1883. The railroad was a key route through the Rocky Mountains, and it linked the silver mines in western Colorado to Santa Fe, New Mexico, in the south and with coal and other mines in Utah to the north, linking with the Central Pacific Railroad in Salt Lake City and Ogden. It was originally built as a narrow-gauge railroad to save costs but was converted to standard-gauge track beginning in 1890. This railroad developed a wide network of lines through Colorado and Utah, but the railroad's management continually stressed growth over stability, resulting in economic difficulties. Competition with other railroads, including the Union Pacific, fueled this need to constantly expand. The railroad's finances continued to be shaky, and the company went into receivership multiple times between 1915 and 1924 (Burns 2020; Taniguchi 1994).

Indian Canyon has been used as a transportation route since early settlement in the region (Barton 1998:116). Initial improvements to the road through the canyon to the Denver and Rio Grande Western Railroad at Castle Gate were finished by 1919 and allowed farmers to transport their crops to the railroad faster (Barton 1998:221). The improvements eliminated dangerous portions of road and shaved off several miles (Barton 1998:221). A state road was built through Indian Canyon after World War II, but it was not until the 1970s when the Indian Canyon road was "completely reworked [and] widened, and at places the old route was abandoned in favor of better grades and less turns" (Barton 1998:280).

Little information exists about the history of Whitmore Park. It is named after J. M. Whitmore, who established a grazing claim on public lands in the area ca. 1900. The land was later granted to the Denver and Rio Grande Railroad in ca. 1908 (Strack 2019; Van Cott 1990:397).

Wells Draw was originally known as Gamma Grass Canyon. It was renamed in 1891 after Owen Smith established a well and stage stop at what would become known as "Smith Wells." Significant commercial traffic passed along Nine Mile Road past the location of Smith Wells in what is now Wells Draw. Smith Wells served as a waystation for travelers on the road, as well as an overnight stage stop. By 1905, commerce began to drop off from Nine Mile Road due to several causes: the construction of the Uintah Railway to Dragon, Utah, in 1904; the abandonment of Fort Duchesne by the army in 1912; and the construction of improved roads into the Uinta Basin starting in 1915. By 1922, Smith Wells was largely abandoned (Jenson 1993).

3.2.3 *The Great Depression and World War II (A.D. 1929–1945)*

The entrance of the United States into World War I in 1917 provided a boost to both national and local industries. This boom was short lived, however, and the beginning of the Great Depression left millions

of Americans jobless (Burton 1996:174-175). The Uinta Basin region did not escape the effects of the Depression. Farmers, once able to grow successful crops like alfalfa or collect honey from bee colonies used to pollinate alfalfa fields, were initially hit hard by infestations of grasshoppers in the early 1920s. In addition, competition abroad and from growers in the midwestern United States, persistent drought conditions from 1925 to 1936, and the degradation of the quality of alfalfa seeds by weeds and parasites also impacted local farmers (Barton 1998; Watt 1997). Cattle and sheep ranchers were affected by drought conditions that reduced the acreage of good grazing lands and by the poor economic conditions of the livestock industry during the Great Depression. Nearly all of the agricultural or ranching economies in the region were affected by the drought, the overproduction of goods, and poor market prices. Many basin inhabitants consequently lost ranches, lands, and homes as banks foreclosed on loans, and most families were soon living below the poverty line (Barton 1998; Burton 1996). Several relief and assistance programs were created by the federal government and supported by state and county governments across the United States. These programs were designed to assist farmers and ranchers and to correct the agricultural marketing and production structure of the nation (Barton 1998; Burton 1996; Watt 1997). Despite the efforts of several New Deal programs designed to create jobs in the basin, recovery was slow.

In Utah, recovery from the Great Depression was driven primarily by World War II provisioning. Demand grew for mineral exports, leading to the expansion of mining efforts and the creation of jobs in the mines. Oil and natural gas exploration began to boom in the Uinta Basin during the mid-twentieth century, and the construction of the government-funded Geneva Steel Corporation plant in Utah County offered employment opportunities with good wages to numerous Juab County residents. All the young men that America sent to fight required food and clothing and as a result, the price of crops, beef, and wool increased, which assisted in the recovery in the agricultural, cattle, and sheep ranching markets (Antrei and Roberts 1999:105).

3.2.4 *Postwar (A.D. 1945–present)*

After World War II, Uinta Basin communities experienced a period of prosperity and growth. The total number of farms declined, and the overall size of the farms increased (Barton 1998). Agricultural productivity increased with the use of mechanized farm equipment. Raising cattle and dairy cows was also an important industry after the war. With the oil boom, the economy surrounding agriculture and ranching began to shift in the late 1950s. Farmers and ranchers often leased part of their land for oil drilling and pumping, which greatly increased their incomes and allowed them to purchase more land (Barton 1998). But land prices and interest rates increased in the 1970s, and some farmers with smaller holdings sought to consolidate. Ultimately, the inflated and fluctuating prices of land, equipment, and goods reduced the number of farms in the Uinta Basin as well as changed the types of crops produced. Agricultural activities moved away from food crops to crops grown to support livestock and associated industries (Barton 1998).

In the 1970s, another attempt was made at mining oil shale in the region. The White River Company, Geokinetics, Inc., and several other companies leased lands from the federal government and the state of Utah to mine oil shale in the basin. Geokinetics, Inc., successfully mined oil shale and extracted oil for nearly 10 years at its plant called Kamp Kerogen. Oil shale mining ceased in 1984 due to high production costs and low oil prices (Burton 1996:145–146).

Further oil and gas exploration resulted in the discovery of oil in commercial quantities by the Equity Oil Company (Burton 1996:141). The discovery unleashed an oil and gas boom that would persist at various levels through the 1980s. The rapid expansion of oil and gas fields in the Uinta Basin resulted in significant community and economic development as workers and their families entered the region to take advantage of the expanding market. After the Equity Oil discovery, oil and gas development became one of the leading industries in the Uinta Basin, and it soon became apparent that the strength of the local

economy was affected by fluctuating production in the oil and gas fields (Burton 1996:141). In the 1970s, oil shale production in the Uinta Basin was seriously investigated to help alleviate the oil crisis (Burton 1996:145). During the 1980s, a slump in oil shale projects and declining oil prices led to an economic crisis throughout the region (Burton 1996:146). By the end of 1987, Uintah County had the highest out-migration rate in Utah, at 4.9 percent. Job opportunities improved in the basin during the 1990s, leading to a population increase of nearly 30 percent between 2000 and 2010 due largely to increased energy production (Office of Legislative Research and General Counsel 2012).

The growth of the tourism industry has helped improve the economic situation of the region. In particular, the dinosaur quarry near Jensen, Utah, and the Utah Field House of Natural History in Vernal have proven to be popular tourist attractions (Burton 1996:185–187). As the Uinta Basin area continues to develop, oil, mining, agriculture, and the growing tourism industry continue to play vital economic roles.

4 BACKGROUND RESEARCH

Per requirements in BLM Manual 8110 (BLM 2004) and Utah SHPO's compliance guidance (Utah Division of State History 2019), SWCA conducted background research prior to conducting the reconnaissance-level survey. SWCA requested data cuts directly from the UDSH. The data cut contained geographic information system (GIS) shapefiles of all previously recorded sites and previously conducted archaeological studies within a 0.5-mile buffer for each of the proposed routes. (The "proposed route" refers to the potential construction area that is defined as the APE plus a 1,000-foot buffer in most areas and parts of the APE that go outside the buffer). SWCA's GIS specialists used this data to conduct a complete review and analysis of previous survey data (i.e., file search) for the entire APE plus a 1,000-foot buffer and a 0.5-mile file search buffer. Additionally, SWCA requested a data cut directly from the USFS (Ashley National Forest) for site and archaeological study location information on lands managed by the USFS within the Project, and a 0.5-mile buffer was applied to these as well; these results were integrated into the file search results. This file search informed the 2019 archaeological resources survey by providing additional context; Appendix B includes tables for archaeological studies (Table B-1) and sites (Table B-2) identified within both the 0.5-mile buffer and within individual proposed routes. A total of 490 archaeological studies were identified during the file search of all proposed routes, and 233 have portions that fall within the APEs and buffers. As a result of those archeological studies, 341 sites have been recorded within the area covered by the file search. Only those sites identified in the file search as being located within the APE and related buffer (totaling 102 sites) are presented in Table 6. The file search results are separated by proposed route (see Indian Canyon Proposed Route project location maps A-1 to A-16 in Appendix A, Whitmore Park Proposed Route project location maps A-17 to A-34 in Appendix A, and Wells Draw Proposed Route project location maps A-35 to A-52), and they indicate whether the sites/archaeological studies are inside or outside the proposed route corridors. SWCA did not conduct a file search for cultural resources on Ute Tribal lands at the request of the Ute Indian Tribe. The STB held an initial consultation meeting with the Tribe on November 20, 2019, and an archaeological resources survey is anticipated to be completed during the summer of 2020 (personal communication, Kevin Keller, HDR, March 20, 2020).

SWCA also examined GIS layers and General Land Office (GLO) plats for possible cultural resources in and near the Project. The GIS layers, available from state and federal agencies, include properties eligible for or listed on the National Register of Historic Places (NRHP), Utah historic trails, Utah historic districts, historical topographic maps, historic mining layers, and historical aerial imagery. Multiple features were noted within the 0.5-mile file search buffer and within each proposed route (see Appendix B, Tables B-1 through B-4).

Table 6. Previously Recorded Sites Identified within Proposed Routes

Smithsonian Trinomial	Site Class	Site Type	Names (if applicable)	NRHP Eligibility	Within Proposed Route
42CB1415	Historic	Railroad		Eligible	Indian Canyon, Wells Draw
42CB1871*	Historic	Road		Not eligible	Indian Canyon, Wells Draw
42CB1872	Prehistoric	Feature		Eligible	Indian Canyon, Wells Draw
42CB1874	Multicomponent	Artifact scatter		Eligible	Indian Canyon, Wells Draw
42CB1875	Multicomponent	Artifact scatter		Eligible	Indian Canyon, Wells Draw
42CB1876	Historic	Homesite		Eligible	Indian Canyon, Wells Draw
42CB1877	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Wells Draw
42CB1878	Prehistoric	Feature		Eligible	Indian Canyon, Wells Draw
42DC32	Prehistoric	Pictographs and lithic scatter		Eligible	Whitmore Park
42DC348	Historic	Government		Eligible	Indian Canyon, Whitmore Park
42DC354	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42DC374	Historic	Canal	Pleasant Valley and Lower Pleasant Valley Canals	Eligible	Indian Canyon, Wells Draw, Whitmore Park
42DC534	Prehistoric	Feature		Eligible	Wells Draw
42DC1120	Prehistoric	Lithic scatter		Eligible	Wells Draw
42DC1381**	Historic	Canal	Myton Townsite Canal	Eligible	Wells Draw
42DC1498	Historic	Stock driveway		Eligible	Wells Draw
42DC1724	Historic	Canal	Upper Pleasant Valley Canal	Eligible	Indian Canyon, Wells Draw, Whitmore Park
42DC2144	Historic	Feature		Eligible	Wells Draw
42DC2233	Multicomponent	Rockshelter		Eligible	Wells Draw
42DC2391	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42DC2392	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42DC2419	Prehistoric	Rock art		Eligible	Indian Canyon, Whitmore Park
42DC2423	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42DC2442	Prehistoric	Temporary camp		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42DC2864	Historic	Transportation	Price to Myton Freight Road	Eligible	Wells Draw
42DC3336	Historic	Feature		Eligible	Indian Canyon, Whitmore Park
42DC3802	Historic	Road		Eligible	Indian Canyon, Whitmore Park
42UN2787**	Historic	Canal	Myton Townsite Canal	Eligible	Wells Draw
42UN5954	Prehistoric	Temporary camp		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UN5955	Prehistoric	Temporary camp		Eligible	Wells Draw
42UN5956	Prehistoric	Temporary camp		Eligible	Indian Canyon, Whitmore Park

Smithsonian Trinomial	Site Class	Site Type	Names (if applicable)	NRHP Eligibility	Within Proposed Route
42UN5959	Prehistoric	Rock art		Eligible	Indian Canyon, Whitmore Park
42UN5961	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42UN5972	Prehistoric	Temporary camp		Eligible	Indian Canyon, Whitmore Park
42UN6009	Prehistoric	Quarry		Eligible	Indian Canyon, Whitmore Park
42UN6059	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6063	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6067	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6076	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6077	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6079	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6081	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6087	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6089	Prehistoric	Camp		Eligible	Indian Canyon, Whitmore Park
42UN6090	Prehistoric	Rock art		Eligible	Indian Canyon, Whitmore Park
42UN6094	Prehistoric	Rock art		Eligible	Indian Canyon, Whitmore Park
42UN6100	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Whitmore Park
42UN6102	Prehistoric	Rockshelter		Eligible	Indian Canyon, Whitmore Park
42UN7968	Prehistoric	Lithic scatter		Eligible	Wells Draw
42UN7969	Prehistoric	Rock art		Eligible	Wells Draw
42UT1082	Prehistoric	Lithic scatter		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1085*	Historic	Road		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1086	Historic	Railroad		Eligible	Indian Canyon, Wells Draw
42UT1124	Historic	Road	U.S. Highway 6	Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1126	Historic	Wood pipeline		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1591	Historic	Wood pipeline		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1592	Historic	Pipeline		Eligible	Indian Canyon, Wells Draw, Whitmore Park
42CB786	Prehistoric	Quarry		Not eligible	Indian Canyon, Wells Draw
42CB1873	Historic	Corral		Not eligible	Indian Canyon, Wells Draw
42DC307	Prehistoric	Lithic scatter		Not eligible	Wells Draw
42DC328	Historic	Transportation		Not eligible	Indian Canyon, Whitmore Park
42DC427	Historic	Trash scatter		Not eligible	Indian Canyon, Whitmore Park
42DC531	Prehistoric	Lithic scatter		Not eligible	Wells Draw
42DC789	Prehistoric	Lithic scatter		Not eligible	Wells Draw
42DC790	Historic	Trash scatter		Not eligible	Wells Draw
42DC791	Historic	Trash scatter		Not eligible	Wells Draw

Smithsonian Trinomial	Site Class	Site Type	Names (if applicable)	NRHP Eligibility	Within Proposed Route
42DC1142	Historic	Sheep camp		Not eligible	Wells Draw
42DC1202	Historic	Transportation	Road to Pariette	Not eligible	Wells Draw
42DC1499	Historic	Mining		Not eligible	Wells Draw
42DC1501	Historic	Trash scatter		Not eligible	Wells Draw
42DC1541	Historic	Trash scatter		Not eligible	Wells Draw
42DC1975	Historic	Trash scatter		Not eligible	Wells Draw
42DC2136	Prehistoric	Lithic scatter		Not eligible	Wells Draw
42DC2143	Prehistoric	Lithic scatter		Not eligible	Wells Draw
42DC2195	Historic	Campsite		Not eligible	Wells Draw
42DC2393	Historic	Trash scatter		Not eligible	Indian Canyon, Whitmore Park
42DC2443	Prehistoric	Artifact scatter		Not eligible	Wells Draw
42DC2881	Historic	Transportation	Nine Mile Canyon Road	Not eligible	Wells Draw
42DC3003	Historic	Irrigation		Not eligible	Indian Canyon, Whitmore Park
42DC3205	Historic	Trash scatter		Not eligible	Wells Draw
42DC3543	Historic	Ranch		Not eligible	Indian Canyon, Whitmore Park
42DC4008	Historic	Trash scatter		Not eligible	Indian Canyon, Wells Draw
42UN5986	Prehistoric	Lithic scatter		Not eligible	Indian Canyon, Whitmore Park
42UN6024	Prehistoric	Lithic scatter		Not eligible	Indian Canyon, Whitmore Park
42UN6035	Prehistoric	Quarry		Not eligible	Indian Canyon, Whitmore Park
42UN6051	Prehistoric	Camp		Not eligible	Indian Canyon, Whitmore Park
42UN6053	Prehistoric	Camp		Not eligible	Indian Canyon, Whitmore Park
42UN6069	Prehistoric	Lithic scatter		Not eligible	Indian Canyon, Whitmore Park
42UN6071	Prehistoric	Camp		Not eligible	Indian Canyon, Whitmore Park
42UN6073	Prehistoric	Camp		Not eligible	Indian Canyon, Whitmore Park
42UN6078	Prehistoric	Camp		Not eligible	Indian Canyon, Whitmore Park
42UN6084	Prehistoric	Rockshelter		Not eligible	Indian Canyon, Whitmore Park
42UN6093	Prehistoric	Temporary camp		Not eligible	Indian Canyon, Whitmore Park
42UT1084	Historic	Utility line		Not eligible	Indian Canyon, Wells Draw
42UT1087	Prehistoric	Lithic scatter		Not eligible	Indian Canyon, Wells Draw
42UT1352	Historic	Quarry		Not eligible	Indian Canyon, Wells Draw, Whitmore Park
42UT1593	Historic	Telephone line		Not eligible	Indian Canyon, Wells Draw
42DC343	Historic	Cabin	Jones Hollow Historic Cabin	Unevaluated	Indian Canyon, Whitmore Park
42DC368	Historic	Cabin	Clement Hollow Historic Log Cabin	Unevaluated	Indian Canyon, Whitmore Park
42DC2092	Historic	Irrigation		Unevaluated	Indian Canyon, Whitmore Park
42UT1083	Prehistoric	Lithic scatter		Unevaluated	Indian Canyon, Wells Draw, Whitmore Park

Smithsonian Trinomial	Site Class	Site Type	Names (if applicable)	NRHP Eligibility	Within Proposed Route
42CB1898	Historic	Utility		Unknown	Indian Canyon, Wells Draw
42DC3	Prehistoric	Petroglyph		Unknown	Indian Canyon, Whitmore Park
42DC4	Prehistoric	Petroglyph		Unknown	Indian Canyon, Whitmore Park

Note: NRHP = National Register of Historic Places.

*Sites 42UN2787 and 42DC1381 are the same site spanning two counties.

**Sites 42CB1871 and 42UT1085 are the same site spanning two counties.

4.1 Indian Canyon Proposed Route

The file search indicated that 197 archaeological studies and 193 previously recorded archaeological sites are located in the proposed route or within the 0.5-mile file search buffer of this proposed route (see Section 1 for the definition of this area). Of the previous archaeological studies, 92 occurred within the proposed route. A total of 73 previously recorded sites are within the proposed route study area and 120 sites are within 0.5 mile of it. Forty-two sites within the proposed route are NRHP eligible, seven are unevaluated or unknown, and 24 are not eligible. Many of these sites and archaeological studies overlap those identified on other routes.

4.2 Whitmore Park Proposed Route

The file search indicated that 190 archaeological studies and 178 previously recorded archaeological sites are located in the proposed route or within the 0.5-mile file search buffer of this proposed route (see Section 1 for the definition of this area). Of the previous archaeological studies, 85 occurred within the proposed route. A total of 60 previously recorded sites are within the proposed route. Thirty-five sites within the proposed route are NRHP eligible, six are unevaluated or unknown, and 19 are not eligible. Many of these sites and archaeological studies overlap those identified on other routes.

4.3 Wells Draw Proposed Route

The file search indicated that 365 archaeological studies and 237 previously recorded archaeological sites are located in the proposed route or within the 0.5-mile file search buffer of this proposed route (see Section 1 for the definition of this area). Of the previous archaeological studies, 176 occurred within or the proposed route. A total of 55 previously recorded sites are within the proposed route. Twenty-nine sites within the proposed route are NRHP eligible, two are unevaluated or unknown, and 24 are not eligible. Many of these sites and archaeological studies overlap those identified on other routes.

5 FIELD SURVEY METHODS

SWCA archaeologists conducted a selective intensive-level survey of archaeological sites over four field sessions from June 5 to October 13, 2019, to identify and record any cultural sites visible on the ground surface. The SWCA field crew used the intensive-level survey methods summarized in the Utah SHPO and Antiquities Section *Archaeological Compliance Guidance* (Utah State Historic Preservation Office and Antiquities Section 2019). The environmental zones are based on the Environmental Protection Agency Level IV ecoregions.

Methods to identify the sample survey areas have been outlined above in the description of the survey area; however, they are repeated here. The survey area consists of selected sample survey areas, or survey area blocks, of approximately 10 percent of the land within each of the three proposed routes before they were finalized. To identify sample survey areas, SWCA treated quarter-sections as sampling units and then reduced the sampling units to exclude land that, according to data provided by the UDSH, had been surveyed at an intensive level in 2011 or later. SWCA then stratified the sample by ecoregion and land ownership or status such that the survey encompassed approximately 10 percent of the land within each environmental zone (based on ecoregions developed by the Environmental Protection Agency) and landowner represented within each route. The SWCA field crew only surveyed intact ground surfaces with the potential to contain archaeological material. SWCA then screened the initial sample survey areas to ensure field crews had access to them. Any areas that did not meet the above criteria were replaced by other selected areas with similar land mass, ownership, and ecoregion. SWCA also sought input from land management agencies and private property owners regarding accessible terrain that would be suitable for surveys and modified the initial sample survey areas, as appropriate, in response to that input.

An SWCA principal investigator who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology and who is permitted by the Utah BLM, the Ashley National Forest, and the Utah Public Lands Policy Coordination Office as a principal investigator and project director directly supervised all pre-field file searches, fieldwork, and reporting.

Fieldwork occurred on four separate field sessions (Table 7) and consisted of one to three crews composed of three to five SWCA archaeologists surveying the sample survey areas with at least one crew member on each crew permitted by the Utah BLM and the Ashley National Forest as crew chiefs/field directors (Lisa Stenten, Liz Baldwin, Mike Skidmore, Tiara Nestel, and David Schmitt). The archaeologists walked parallel transects spaced 15 meters (m) (50 feet) apart across the sample survey area. Handheld Trimble GeoExplorer XT global positioning system (GPS) units and aerial photograph maps were used to navigate the area. Field crews took a survey point with the GPS at the start of each transect, and turned on the tracking data for each GPS unit to ensure that the entire area was sufficiently covered. This data included information on where the GPS was located relative to the rest of the crew (three people transecting to the west, the middle of the five-person transect, etc.). Field crews visually inspected the ground on both sides of each transect to an approximate distance of 7.5 m (25 feet). The survey line was abandoned only when necessary to evaluate a particular feature or area. After inspection of such a feature or area, the survey line was resumed.

Table 7. Proposed Route, Survey Dates, Survey Area Blocks Surveyed, and Survey Team Composition/Roles

Proposed Route	Survey Dates	Survey Area Blocks Completed	Acreage	Team
Indian Canyon	June 5–12, 2019	1–19	2,203	Field directors/Crew chiefs: Lisa Stenten, Michael Skidmore, Elizabeth Baldwin; crew members: Joshua Rosario, Haley Cooper, Vicki Meyers, Ben Zumkeller, Alexandra Case, and Alicia Evans
Whitmore Park	August 21–28, 2019	1–5	98	Field directors/Crew chiefs: Tiara Nestel, Elizabeth Baldwin; crew members: Chris Lowry, Leah Wood, Amanda Carroll, Sarah Basso
Wells Draw	September 18–25, 2019	1–5 and 9–19	715	Field directors/Crew chiefs: Tiara Nestel, David Schmitt; crew members: Chris Lowry, Leah Wood, Ben Zumkeller
Wells Draw	October 11–13, 2019	6–8	235	Field directors/Crew chiefs: Dan Shelton, Brandon Austin

Overall ground visibility varied, ranging from high visibility on the slopes and benches of each proposed route to low to no visibility in the valley, where dense riparian vegetation thrives. Visibility along rivers, streams, and creeks around the growth of understory where vegetation is dense was also very low. The field crew visually assessed slopes, steep canyons, and escarpments using binoculars when inaccessible due to safety concerns. Field crews thoroughly inspected the ground surface in in all areas. Portions of the survey area blocks were not accessible where slopes were too steep (slope exclusion), where there was no road access, on parcels of land with only private access, and where waterways were too wide to pass through safely. These portions of the survey area were visually inspected with binoculars for cultural resources from the closest and safest distance (i.e., at a reconnaissance level) due to safety concerns. This reconnaissance-level survey consisted of careful visual investigation from the nearest accessible point to identify features that are common in steep terrain (e.g., mining features, granaries, rock art).

SWCA employed BLM site definitions for the Project, followed project-specific details documented in the technical memorandum outlining the proposed field reconnaissance methodology (Cannon 2019) and documented all resources to the standards of the Utah BLM and the Utah SHPO. Site and isolated occurrence (IO) definitions are presented in Guidelines for Identifying Cultural Resources, Manual H-8110 (BLM 2002). Minimum criteria for defining an archaeological site that requires the use of the Utah Archaeology Site Form (UASF) are as follows (BLM 2002):

- At least 10 artifacts of a single class (e.g., 10 sherds) within a 10-m-diameter area, except when all pieces appear to originate from a single source (e.g., one ceramic pot, one glass bottle)
- At least 15 artifacts that include at least two classes of artifact types (e.g., sherds, nails, or glass) within a 10-m-diameter area
- One or more archaeological features in temporal association with any number of artifacts
- Two or more temporally associated archaeological features without artifacts

SWCA recorded all linear archaeological resources per the Utah Professional Archaeological Council linear site guidelines (Utah Professional Archaeological Council 2008). All archaeological sites encountered during the survey were documented on UASFs, and each site was evaluated for NRHP eligibility. Previously documented sites located in the survey area were revisited, and their site records updated, as required by agency guidelines. To the extent practical, given landowner considerations, archaeological resources were documented in their entirety, and documentation was not limited to the survey area block boundary. Fully re-recorded sites include all pertinent parts of the UASF (i.e., Part A and Part C for historic sites), updated sketch and location maps, and full site photographs (i.e., two site overview photographs and feature and artifact photographs). Updated sites include just Part A and site overview photographs showing the site's current condition.

The field crew returned to the office and used Trimble's Pathfinder Office to process the GPS data collected in the field. The GPS data were differentially corrected and then exported into Esri's ArcGIS 10.5 shapefile format using the Universal Transverse Mercator, Zone 12, North American Datum 83 coordinate system. All maps for this report were generated using ArcGIS 10.5 to process the field data. No artifacts or samples were collected during this survey.

As per Title 36 of the Code of Federal Regulations, Parks, Forests, and Public Property, all cultural resources sites over 50 years old must be evaluated for NRHP eligibility under four criteria and with consideration for seven elements of integrity. A site may be recommended eligible for the NRHP if it meets any one of the following criteria:

- Criterion A: The site is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: The site is associated with the lives of persons significant in our past.
- Criterion C: The site embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: The site has yielded, or may be likely to yield, information important in prehistory or history.

Sites considered significant under at least one of these four criteria must also be evaluated for integrity of location, design, setting, materials, workmanship, feeling, and association. To be eligible for the NRHP, a site must possess integrity of those elements directly related to the criterion or criteria under which it is considered significant.

6 SURVEY RESULTS AND EVALUATIONS

A total of 25 archaeological sites were identified during the field survey, including 11 previously recorded sites and 14 newly documented sites. (This number reflects only those sites recorded during fieldwork, not those that were identified in the file search. Appendix B includes a table of all sites identified during the file search.) In addition, eight isolated features (IFs), and 26 IOs were also recorded. Survey results maps are included in Appendix C. The IFs are discussed in more detail in Appendix D and are also listed below.

6.1 Isolated Features and Isolated Occurrences

Eight IFs and 26 IOs were recorded (Table 8; see Appendix D). The IFs consist of six trails/roads, one fence line, and a survey marker). All of the IFs are historic.

The IOs consist of 14 historic metal cans, a historic glass bottle, and 11 prehistoric artifact(s), including a mano, utilized flakes, debitage, and a core.

Table 8. Isolated Features and Isolated Occurrences Identified in the Field Survey in Each Proposed Route

Isolate Number	Type	Indian Canyon	Wells Draw	Whitmore Park
IF-01*	Trail/Road	No	No	No
IF-02	Fence	No	Yes	No
IF-03	Trail/Road	Yes	Yes	Yes
IF-04	Trail/Road	Yes	No	No
IF-05	Trail/Road	Yes	No	Yes
IF-06	Trail/Road	Yes	No	Yes
IF-07	Trail/Road	No	Yes	No
IF-09*	Other Historic (non-architectural), survey marker	No	No	No
IO-02*	Historic metal can, hole-in-top	No	No	No
IO-04	Historic metal can, hole-in-top	Yes	No	Yes

Isolate Number	Type	Indian Canyon	Wells Draw	Whitmore Park
IO-06	Historic metal can, other	Yes	No	No
IO-07*	Historic glass, aqua bottle, machine made	No	No	No
IO-08*	Historic metal can, other	No	No	No
IO-09*	Prehistoric stone, chert tool, utilized flake	No	No	No
IO-10	Prehistoric stone, chert, debitage	Yes	No	Yes
IO-11*	Prehistoric stone, chert tool, utilized flake	No	No	No
IO-12*	Prehistoric stone, chert, debitage	No	No	No
IO-13*	Prehistoric stone, quartz/quartzite, debitage	No	No	No
IO-14	Prehistoric stone, chert, debitage	No	Yes	No
IO-15	Prehistoric stone, quartz/quartzite, debitage	No	Yes	No
IO-16	Prehistoric stone, quartz/quartzite, ground stone, mano (one hand)	No	Yes	No
IO-17	Prehistoric stone, tool core	No	Yes	No
IO-18	Historic metal can, hole-in-top	Yes	Yes	Yes
IO-20*	Historic metal can, other	No	No	No
IO-22*	Historic metal can, hole-in-cap	No	No	No
IO-25	Historic metal can, hole-in-top	No	Yes	No
IO-27	Historic metal can, hole-in-cap	No	Yes	No
IO-29	Historic metal can, hole-in-cap	No	Yes	No
IO-31	Prehistoric stone, CCS, debitage	No	Yes	No
IO-33	Historic metal can, hole-in-cap	No	Yes	No
IO-35	Prehistoric stone, CCS tool, utilized flake	No	Yes	No
IO-36	Historic metal can, hole-in-cap	No	Yes	No
IO-37	Historic metal can, hole-in-cap	No	No	Yes
IO-38	Historic metal can, hole-in-cap	No	No	Yes

* Outside all routes (as of February 2020, the site was within an initial proposed route prior to a change).

6.2 Sites

In total, 25 archaeological sites were either documented or field verified during the archaeological resources survey (Table 9). The site descriptions and NRHP recommendations are included below. All sites were evaluated for the NRHP based on their significance under all four criteria and the sites' ability to convey that significance through the seven aspects of integrity. Table 9 includes SWCA's recommendation of eligibility and indicates under which criteria sites are recommended eligible. Photographs, maps, and completed UASFs for each of the sites can be found in Appendix E.

Table 9. Archaeological Sites Identified in the Field Survey

Site Number	Site Class	Site Type	Eligibility (Criterion)	Indian Canyon	Wells Draw	Whitmore Park
42DC348	Historic	USFS Ranger Station	Eligible (Criteria A, C, D)	Yes	No	Yes
42DC3802	Historic	Road	Eligible (Criterion A)	Yes	No	Yes
42DC4128	Prehistoric	Rock art, artifact scatter	Eligible (Criteria C, D)	No	Yes	No
42UN2787/ 42DC1381	Historic	Canal	Eligible (Criterion A)	No	Yes	No
42UN8923	Historic	Domestic	Eligible, Criterion D	No	No	Yes
42UT1370	Historic	Railroad	Eligible (Criterion A), non-contributing element)	Yes	Yes	Yes
42CB786	Multicomponent	Lithic scatter, artifact scatter	Not eligible	Yes	Yes	No
42CB1871/ 42UT1085	Historic	Road	Not eligible	Yes	Yes	Yes
42CB1898	Historic	Telephone line	Not eligible	Yes	Yes	No
42CB3493*	Historic	Artifact scatter	Not eligible	No	No	No
42DC328	Historic	Road	Not eligible	Yes	No	Yes
42DC3543	Historic	Homestead	Not eligible	Yes	No	Yes
42DC4129*	Prehistoric	Lithic scatter	Not eligible	No	No	No
42DC4130	Prehistoric	Lithic scatter	Not eligible	No	Yes	No
42DC4131	Historic	Artifact scatter, inscription	Not eligible	Yes	No	Yes
42DC4132	Historic	Artifact scatter	Not eligible	Yes	No	Yes
42DC4133	Historic	Artifact scatter	Not eligible	No	Yes	No
42DC4134	Historic	Artifact scatter	Not eligible	No	Yes	No
42DC4135	Historic	Artifact scatter	Not eligible	No	Yes	No
42DC4136	Historic	Road	Not eligible	Yes	No	Yes
42DC4137	Historic	Artifact scatter	Not eligible	No	Yes	No
42DC4138	Historic	Road	Not eligible	Yes	No	No
42UN8919*	Prehistoric	Lithic scatter	Not eligible	No	No	No
42UT1084	Historic	Telephone line	Not eligible	Yes	Yes	Yes
42UT2149	Historic	Artifact scatter	Not eligible	Yes	Yes	Yes

* Outside all routes (as of February 2020, the site was within an initial proposed route prior to a change).

6.2.1 *Results*

42CB786

Site Type: Task Specific, Other Historic
Date: Unknown Prehistoric, 1904–present
NRHP Eligibility: Not eligible
Documentation Status: Full re-record
Proposed Route(s): Indian Canyon, Wells Draw

Site Description

Site 42CB786 is a previously recorded prehistoric lithic quarry [redacted] On-site deposition is the result of alluvial processes on a residual landscape. Sediments are poorly sorted light gray and reddish-brown sandy loam with 20 percent fine-grained volcanic and CCS pebble and cobble intrusions. The alluvial processes are slow moving and ongoing with artifacts eroding downslope, indicating a secondary context for any subsurface cultural materials. Recreational activities have also impacted the site. The site is heavily impacted by erosion and livestock. A modern fence (D-01) bisects the western portion of the site and a two-track road (D-02) bisects the eastern portion of the site.

The site was originally recorded in 1991 by the BLM (Miller 1991). It was described as a lithic quarry with 100 to 500 primary and secondary flakes and shatter. No temporally diagnostic artifacts, artifact concentrations, or features were observed. The site was originally listed in poor condition with impacts from a road and erosion.

The site was updated in 2014 by HDR, Inc. (Page and Edwards 2014a). The site was found to be in a similar condition as the original recording. HDR, Inc. noted heavy impacts from erosion and a dirt two-track. No temporally diagnostic artifacts were observed.

In 2019, SWCA re-located and fully re-recorded 42CB786 as a multicomponent prehistoric task-specific site and historic artifact scatter [redacted]. The prehistoric component consists of one late stage biface (P-01), an early stage biface, and expedient cores as well as a scatter of CCS primary and secondary flakes. Naturally occurring and culturally modified shatter was also observed. No prehistoric features or artifact concentrations were observed.

The historic component consists of a diffuse scatter of sanitary cans and various metal fragments. No historic features or artifact concentrations were observed.

The multicomponent assemblage suggests that 42CB786 is a prehistoric lithic procurement area dating to an unknown prehistoric period and a historic artifact scatter dating from 1904 to the present.

Historical Background Research

A search of the BLM GLO records online indicates that no patent was issued for [redacted]. No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42CB786 is a previously recorded multicomponent task-specific site and historic artifact scatter. The site was originally recorded in 1991 and updated in 2014. The site was recommended not eligible for the

NRHP due to the limited assemblage, the lack of diagnostic artifacts, and its limited data potential. The SHPO concurred with the 1991 and 2014 recommendations (Page and Edwards 2014a). The site's historic and prehistoric artifacts provide a broad date range and therefore the site cannot be associated with any events that have made a significant contribution to the broad patterns of prehistory. In addition, there is no evidence that this site was connected to any significant individuals, nor does it contain any artistic components of high value. For these reasons, 42CB786 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Prehistoric lithic procurement sites have the potential to address research questions pertaining to region-specific adaptations seen through settlement patterns and distribution, material source use, and subsistence strategies and patterns. But 42CB786 lacks the artifact assemblage and features that would provide information pertaining to settlement patterns and distribution. The site can provide information regarding material source questions, but the material appears to be orange chert and of poor quality. Lastly, the site lacks the artifact assemblage and features related to subsistence activities and therefore cannot answer important research questions pertaining to subsistence patterns and strategies. Given these factors, 42CB786 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42CB786 contains a sparse historic artifact scatter and likely represents a single-use episode. There is limited potential for subsurface cultural materials and the site has been thoroughly documented; it is unlikely to yield any additional data. Because the site is unable to address region-specific research questions pertaining to Euro-American settlement patterns in the 1900s, the historic component does not meet the criteria of significance for the NRHP under Criterion D.

Although the site retains integrity of location and workmanship, it has limited potential for additional subsurface cultural materials and lacks the diagnostic artifacts to associate the site with a specific historic period or theme. In summary, SWCA recommends 42CB786 not eligible for the NRHP under any criterion.

42CB1871/42UT1085

Site Type: Transportation/Communication
Date: 1883–present
NRHP Eligibility: Not eligible
Documentation Status: Full re-record
Proposed Route(s): Indian Canyon, Wells Draw, Whitmore Park

Site Description

Site 42CB1871/42UT1085 is a historic linear site in Emma Park [redacted]. It crosses privately held and BLM-managed lands. The on-site depositional context is alluvial, and sediments along the alignment vary from light brown to reddish-brown sandy silt. The alignment has been impacted by slow-acting alluvial processes along most of its length. The road is paved but not well maintained, and historic USGS maps suggest it was not paved until after 1969 (USGS 1969a, 1969b). Additional impacts from erosion, modern trash, construction disturbances, and grazing are causing the site condition to deteriorate.

The site is a segment of a road that trends east from [redacted]. The eastern portion of the site in Carbon County (42CB1871) is known as [redacted] and the western end of the site in Utah County (42UT1085) is known as [redacted]. The recorded segment is 9.3 miles long; 42CB1871 measures 3.5 miles and 42UT1085 measures 5.8 miles. The road alignment is paved and measures approximately 24 feet wide, with gravel shoulders. No features or artifacts were observed in association with the road.

Historical Background Research

The western end of the Carbon County portion of the road (42CB1871) is visible in [redacted] on the 1915 GLO plat [redacted] (Ferron 1915). The road is labeled "Road from Colton to Theodore and Price" on the 1915 GLO plat, in the same corridor as a railroad. The remainder of the segment is visible in [redacted] on the 1895 GLO plat for [redacted] Ferron 1895) and is labeled the "Road to P.V. Junction," although this alignment continued east past the end of the current road. The current alignment of this portion of the road is plotted on the 1924 GLO plat for [redacted] and is labeled "Colton to Duchesne and Helper," where it ends in [redacted] the north-south-trending road labeled "Helper to Duchesne" (Miller 1924). This portion of the road is also plotted on several USGS historical topographic maps: the Price, Utah, 1886 USGS 1:250,000 scale quadrangle, where the road extends to the east past its current end point (USGS 1886); the Price, Utah, 1956 USGS 1:250,000 scale quadrangle (USGS 1956); and the Kyune, Utah, and Matts Summit, Utah, 1969 USGS 1:24,000 scale quadrangles (USGS 1969a, 1969b), where its extent is limited to the current alignment.

A search of BLM GLO records shows the Utah County portion of the road (42UT1085) in [redacted] (Ferron 1883), but the unnamed road continues to the northwest through [redacted] The road is also plotted on two USGS historical topographic maps, where the road follows this original alignment, including the Price River, Utah, 1886 and Price, Utah, 1956 USGS 1:250,000 scale quadrangles (USGS 1886, 1956). The Kyune, Utah, 1969 USGS 1:24,000 scale quadrangle (USGS 1969a) shows the western end of the road following the current alignment, and additional documentation suggests the realignment took place ca. 1966 (Harja 2008).

NRHP Eligibility Recommendation

Site 42CB1871/42UT1085 is a newly recorded historic road alignment that is first visible on 1883, 1915, and 1895 GLO plats. Historic roads fall into the transportation and communication areas of significance for the NRHP (National Park Service 1997b:40–41). Despite its early presence in the area, the road appears to have always been a small, local access road through Emma Park. It does not appear to have been an important transportation route in the area and therefore does not meet the criteria of significance for the NRHP under Criterion A.

Historical background research for 42CB1871/42UT1085 did not identify any persons significant in our past in a local, state, or national context, and the site has no elements that could be important for their physical design or construction. Therefore, 42CB1871/42UT1085 does not meet the criteria of significance for the NRHP under Criteria B and C.

Historic roads in the Uinta Basin and surrounding areas can potentially provide data to address research questions pertaining to Euro-American settlement of the region; however, no artifacts or features were associated with the surface manifestation of the site, and it is therefore unlikely that there are subsurface deposits that could provide information about the site's history. In addition, further archival research is unlikely to yield additional information about the site. For these reasons, the site does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location, as only minor realignments occurred during the Historic period and the surrounding landscape is relatively unaltered. It does not retain integrity of workmanship, materials, design, setting, or feeling, as historical topographic maps suggest it was not paved until after 1969 (USGS 1969a, 1969b).

In summary, SWCA recommends 42CB1871/42UT1085 not eligible for the NRHP under any criterion.

42CB1898

Site Type: Transportation/Communication
Date: Pre-1915 to 1950s
NRHP Eligibility: Not eligible
Documentation Status: Full re-record
Proposed Route(s): Indian Canyon, Wells Draw

Site Description

Site 42CB1898 is a previously documented historic linear site, known as the "Colton to Duchesne Telephone Line, Colton to Price," and associated artifact scatter [redacted]. It crosses both BLM-managed land and private property. The depositional context is alluvial, with ongoing alluvial erosion impacting the slope. While there is a potential for subsurface cultural deposits based on deposition, telephone lines are surface manifestations by nature.

Site 42CB1898 was also recorded as an architectural resource. Its architectural report parcel number/ID number is 2A-0313-0000.

Montgomery Archaeological Consultants (MOAC) originally documented the telephone line in Carbon County in 2003 (MOAC 2003). The line extends into Utah County, and MOAC recorded that portion in 1999 as 42UT1084 (Montgomery and Montgomery 1999). MOAC described the line as a new portion of the "dismantled telephone line extending northwest-southeast across the valley to the southeast of Horse Creek" (MOAC 2003). The site consisted of numerous poles, spaced approximately 110 feet apart. Some poles were intact and upright while the majority were cut or broken, with the remaining stumps varying in height between 5 and 15 inches above the modern ground surface. Numerous glass insulators and shards, in colorless, aqua, and green glass, were found in association with the poles. The insulators were embossed with Hemingray Glass Company, Pyrex, and Brookfield Glass Company maker's marks. MOAC dated the site to between 1921 and the 1950s (MOAC 2003).

In 2019, SWCA conducted a full re-recording of the site. Portions of the alignment still have several upright poles, but the remainder were lying on the ground. Associated artifacts consist of insulators (including H-01, H-02, and H-03), four crushed hole-in-top cans, one tobacco tin (ca. 1907–1960) (Rock 1993:10; Waechter 2010), and more than 100 glass insulator shards. H-01 is a complete CD 155 style colorless glass insulator (1938–ca. 1960s) (Willis 2019a); H-02 is a complete CD 121 type dark green glass insulator (1864–1922) (Whitten 2019a); and H-03 is a complete CD 122 type aqua glass insulator (1920s–ca. 1938) (Willis 2019b). The observed artifacts date between 1907 and the 1950s.

Historical Background Research

A search of BLM GLO records online produced two patents for that portion of [redacted]. No additional information was found for this area. The first serial patent was granted to the State of Utah on July 16, 1894, under the Utah Enabling Act (28 Stat. 107) (GLO 1894). The second serial patent was granted to the State of Utah on September 23, 1964, under the State Grant-School Section Patent (48 Stat. 1185) (BLM 1964). In addition, the telephone alignment appears on the 1915 GLO map for Township 12 South, Range 9 East, but it bears no label (Ferron 1915). No further information was available for these sections.

NRHP Eligibility Recommendation

Site 42CB1898 is a previously documented historic linear site and associated artifact scatter that dates to before 1915. The alignment was previously recommended not eligible for the NRHP under any criterion due to the line having been dismantled (Montgomery and Montgomery 1999).

While 42CB1898 can be placed in a general historic period, background research has not provided information to provide a connection to a specific era of telephone line construction. Site 42CB1898 cannot be associated with any events that have made a significant contribution to the broad patterns of history. In addition, there is no evidence that this site was connected to any significant individuals, nor does the site contain any artistic components of high value. For these reasons, 42CB1898 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42CB1898 is primarily a surface manifestation that is unlikely to yield intact subsurface cultural deposits. In addition, the site has been thoroughly documented, and any additional data is unlikely to be procured. Additional archival research is unlikely to produce important information about this site or answer research questions. Overall, 42CB1898 is unlikely to yield important information about telephone alignments and associated artifact scatters. Therefore, 42CB1898 does not meet the criteria of significance for the NRHP under Criterion D.

Although 42CB1898 retains integrity of location, setting, and feeling, the site lacks the significance that might be conveyed though its location. Integrity of materials, design, workmanship, and association have been impacted by the dismantling of the line.

In summary, SWCA recommends 42CB1898 not eligible for the NRHP under any criterion.

42CB3493

Site Type: Other Historic
Date: 1850–1950
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): None (previously Whitmore Park)

Site Description

Site 42CB3493 is a newly recorded historic artifact scatter on private property on the gentle eastern slope of a low, eroded knoll adjacent to a large ephemeral drainage. The on-site depositional context is alluvial. While no disturbances were observed in or adjacent to the site, most of the cans/can fragments present are heavily rusted and degraded.

In 2019, SWCA recorded 42CB3493 as a dense ca. 10 × 10–m cluster of historic domestic artifacts dominated by cans. The can assemblage contains approximately 200 specimens and includes assorted sanitary cans and can fragments, a few hole-in-top cans, one paint can, and 57 hole-in-cap cans (1820 through the mid-1930s) (Rock 1984:100–106). Identified glass artifacts include shards from a sun-colored amethyst bottle (1890–ca. 1920) (Lindsey 2018), neck and shoulder fragments of an unidentified aqua bottle (1850s–1920s) (Lindsey 2018), one colorless bottle fragment, and a complete Owens-Illinois amber Duraglas bottle (H-01) (1951) (Lockhart and Hoenig 2018:299–301). Six chunks of Gilsonite were also observed along with a cut piece of PVC pipe. Historic materials, notably crushed cans, are clustered in the center of the site and radiate out to thin scatters that mark the site boundaries. Based on the artifact assemblage, the site dates to between 1850 and the 1950s, with a narrower primary date of use between 1900 and 1920; the site size and content strongly suggest that the site represents a refuse domestic dump.

Historical Background Research

A search of GLO records online did not produce a specific patent for this portion of Section 10 of Township 12 South, Range 10 East, although numerous patents can be traced to the section. Most of the land surrounding this location was issued to landowners under the authority of the December 29, 1916, Stock-Raising Homestead Act (39 Stat. 862) patent (GLO 1930), but no other information was available for this land.

NRHP Eligibility Recommendation

Site 42CB3493 is a small historic artifact scatter along the eastern slope of a low knoll. It contains a few broken glass bottles and hundreds of crushed cans and appears to be a refuse dump dating sometime between 1900 and 1920. Only broadly temporally diagnostic artifacts were observed at the site, and it cannot be directly associated with "a specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation" or "any individuals whose activities are demonstrably important within a local, State, or national historic context" (National Park Service 1997b:12, 14). The site does not contain any features or significant artifacts that "embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction" (National Park Service 1997b:17). Given these factors, 42CB3493 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Historic artifact scatters have the potential to address research questions pertaining to the agricultural and subsistence practices of early Euro-American settlers in the region. This site, however, consists almost entirely of commonplace food and beverage cans that are well documented in the area and cannot be ascribed to specific people or events. There is also little to no potential for depth of cultural deposits or extracting any additional data beyond that gathered in survey recordation. For these reasons, the site is unlikely to provide any "information to contribute to our understanding of human history or prehistory" (National Park Service 1997b:21), and it does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location because it appears in its original context; however, due to the erosional impacts and modern roads, ranching, and other developments in the area, its integrity of setting, design, association, and feeling are not preserved. Moreover, integrity of materials and workmanship are not retained, as the site contents do not convey a particular pattern or signal a particular period.

In summary, SWCA recommends 42CB3493 not eligible for the NRHP under any criterion.

42DC328

Site Type: Transportation/Communication
Date: Protohistoric to present
NRHP Eligibility: Not eligible
Documentation Status: Update
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC328 is the previously recorded Indian Canyon Trail (Indian Canyon Road), which is a historic transportation route located through Indian Canyon in the South Unit of the Ashley National Forest along the foothills of the canyon. The Indian Canyon Trail consists of a Ute trail, a historic Euro-American

wagon road, modern road segments, and US 191 (Isaacs and Knox 2017). The on-site depositional context includes both alluvial fan and colluvial deposits from the adjacent sandstone cliff bands that have transported sediments to and from the site. Overall, the site is in stable condition. Due to the nature of the site and evidence of erosion, there is little potential for intact subsurface deposits. Part of the site has been disturbed by a three-strand barbed wire fence constructed over the wagon road.

The site was originally recorded in the 1960s by the USFS, but the initial documentation was anecdotal rather than a full recordation and largely focused on the use of the canyon by the Ute Indian Tribe. It was partially investigated in 2006 and then recorded in 2017 by the USFS (Isaacs and Knox 2017) as part of the Badlands ATV Trail survey as a historic transportation and communication site that was broken up into four chronological periods of use and purpose: prehistoric/ethnohistoric Ute trail, Euro-American wagon road, historic road, and modern highway. Twenty features were recorded along the site (F1 through F20) as well as fourteen artifacts (A1 through A14). The USFS noted that the site had been altered significantly due to US 191 and the trail and roads that overlap the site and did not retain any integrity; therefore, the site was recommended not eligible for the NRHP. The SHPO concurred with the eligibility determination.

SWCA updated two segments of the site in 2019 as part of the Uinta Basin Railway Project. Two of the previously recorded segments intersected the survey area (one section in the previously recorded Segment 10 and the other in the previously recorded Segment 11). The previously recorded wagon road was observed within Segment 11. The previously recorded culverts (F1, F5, F10, and F20), fences (F2, F3, and F8), rock walls (F4), concrete (F6), post (F7), telegraph poles (F9, F13, F14, F15, F16, F17, and F19), wood (F11 and F18), and arborglyph (F12) are located outside the survey area. A new feature (F-21) was observed within Segment 10. It consists of a heavily weathered, shallow concrete foundation with exposed rebar. F-21 measures 18 × 9 feet with a depth of 1/2 to 13 inches above the modern ground surface and has a modern three-strand barbed wire fence that runs northwest from Segment 11 and connects to a nearby corral. The corral is outside of the survey area, so it was not surveyed or recorded as part of this Project. The fence was built over the top of the foundation (F-21) and also crosses the wagon road, representing a disturbance/impact. F-21 is located between the wagon road and US 191 and is in poor condition; it is likely a road-related feature, but its function is unknown. No artifacts were observed in the 2019 recording and due to the nature of the site, no subsurface testing was conducted.

Based on the features present, 42DC328 is a transportation site that has been used from the Late Prehistoric/Ethnohistoric period to the present.

Historical Background Research

Indian Canyon has been utilized by multiple cultures as a travel route from the Prehistoric period through modern times. The prehistoric/ethnohistoric Ute trail is no longer visible within the survey area, and the only remaining documentation of the trail comes from the original 1960s USFS anecdotal recordation.

The Euro-American wagon road remains visible within the survey area, although it is overgrown with vegetation and is disturbed by barbed wire fencing. The road likely dates from the mid- to late 1880s to the mid-1910s.

The historic road was in use from the 1910s to the 1960s, and only some segments and features of this road remain, including culverts and drainage ditches (Isaacs and Knox 2017). This road later gave way to the current US 191 that was built in the early 1970s and is still in use today.

The trail and roads overlap each other and have obscured their predecessors; thus, only segments of the former trails and roads remain. For a detailed historic context of each of these segments throughout the canyon, please see the USFS 2017 recording.

NRHP Eligibility Recommendation

Site 42DC328 is the Indian Canyon Trail (Indian Canyon Road) located in Indian Canyon. The USFS 2017 site form determined that this long-term transportation site was not eligible for the NRHP due to the disturbances caused by other routes limiting the site's integrity (Isaacs and Knox 2017). The SHPO concurred with this eligibility determination.

Because the site was utilized for generic transportation uses and is not part of a particular historic event or trend, the site does not meet the criteria of significance for the NRHP under Criterion A. The site is not linked to any specific individual(s) or their craftmanship within the historic context and therefore it does not meet the criteria of significance for the NRHP under Criterion B. No buildings or structures were observed within the site and therefore it does not meet the criteria of significance for the NRHP under Criterion C. The site has been thoroughly documented, and its context and the nature of the site leaves little potential for subsurface cultural materials that would offer the potential to provide any important information on regional history. Therefore, 42DC328 does not meet the criteria of significance for the NRHP under Criterion D.

Although 42DC328 was previously listed as not retaining any integrity, SWCA believes that the site retains integrity of location, as the roads and trails have remained in their original location. The site does not retain integrity of setting, feeling, or association due to the changes within the canyon over the last ca. 100 years, and it does not retain integrity of workmanship, materials, or design because the construction and creation of such roads are general and nonspecific as well as the number and extent of modern modifications to the road segments.

In summary, SWCA agrees with the previous determination and recommends 42DC328 not eligible for the NRHP under any criterion.

42DC348

Site Type: Conservation, Politics/Government, Architecture
Date: 1914 to 1940s
NRHP Eligibility: Eligible
Documentation Status: Full re-record
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC348 is the historic Indian Canyon Ranger Station, located on USFS property on a ridge adjacent to a two-track access road. Evidence of minor alluvial accumulation was observed, with little evidence of deposition of cultural materials, except on the south-facing slope. A modern fire ring (D-01) was observed near the two-track road.

Site 42DC348 was also recorded as an architectural resource. Its architectural report parcel number/ID number is UDSH ID 42465.

In 1981, the USFS initially recorded 42DC348 in an effort to document the ranger station for USFS files (Mlazovsky 1981a, 1981b). The site consisted of the 1914 guard station building, the 1921 barn, the 1926 outdoor latrine, the foundation for the 1935 garage and storeroom, a pole corral, and a hitching post. Mlazovsky (1981b) noted that "due to the highly disturbed nature of the area, no prehistoric cultural remains were found on the ground surface" and observed no historic artifacts.

The Indian Canyon Ranger Station was officially listed on the NRHP in 1999. The nomination form described the ranger station as consisting of three contributing buildings/structures (the barn, a wood pole-fenced corral, a stone retaining wall and associated concrete foundation) and two "nonsubstantial structures" (a log hitching post and a galvanized-metal structure) (Jensen 1998). The ranger station was described as a "wood-frame, sawed log-siding structure (approx. 16' x 40') on a fieldstone and mortar foundation, with a wood shingle-covered, gable roof, and shingles in the gable ends" (Jensen 1998). The barn, measuring 25 × 27 feet, was built "of wood-frame and sawed-log-siding construction with a wood shingle-covered, gable roof" "contain[ed] 2 horse stalls with a feed trough and a separate storage room" on the interior (Jensen 1998). The site's period of use was noted as 1914 through the 1940s.

In 2015, the USFS produced a historic context statement and evaluations for the administrative facilities associated with the Ashley National Forest that included 42DC348 (Wilson 2015). Wilson noted that the pit toilet was not addressed in the 1998 nomination and the concrete foundation no longer retained integrity. The garage was previously "moved to the Duchesne Ranger Station in 1947-48" (Wilson 2015:135). In addition, Wilson noted that the barn collapsed after a flood in Mill Hollow, a direct result of the Church Camp wildfire that destroyed much of the vegetation in the area (Wilson 2015:135, 186–187). He noted the period of use as 1914 through ca. 1950.

In 2019, SWCA conducted a full re-recording of 42DC348. The ranger station (F-09) appears to be in a similar condition as indicated in the 1998 NRHP nomination form. The barn, wood pole–fenced corral, and concrete garage pad were not observed. The modern metal all-weather precipitation gage (F-05), noted as the "galvanized metal structure" in the NRHP nomination form, was observed near the southwest corner of F-09. SWCA archaeologists also documented a pit toilet/outhouse (F-08), the retaining walls (F-01, F-02, and F-04), the hitching post (F-03), a social trail (F-06), and a two-track road (F-07) in detail, since they were not included in the NRHP nomination form. Several dirt paths surrounding the station and leading to the pit toilet were also observed. Artifacts consist of four unidentifiable metal objects, five sanitary cans, five crushed unidentifiable cans, one metal beer can, one metal spark plug, one amber glass shard, three colorless glass shards, five metal screws with washers attached, and 12 metal nails. SWCA suggests no changes to the period of use.

Historical Background Research

Additional background history for the ranger station can be found in Jensen (1998) and Wilson (2015). No additional information could be found for the site.

NRHP Eligibility Recommendation

Site 42DC348 is the NRHP-listed Indian Canyon Ranger Station. The NRHP nomination form listed the station eligible under Criteria A and C and noted that the site fell into the conservation, politics/government, and architecture areas of significance (Jensen 1998). The 2015 USFS evaluation states that "the Indian Canyon Ranger Station Dwelling is eligible for continued listing on the National Register" (Wilson 2015:187). In addition, the USFS recommended that "[i]f the Ashley NF chooses to maintain the site, the National Register Nomination should be amended to add the pit latrine as a contributing resource, remove the barn as a contributing resource, and change the concrete pad to a non-contributing feature" (Wilson 2015:187). Site 42DC348 falls into the domestic and agriculture/subsistence areas of significance for the NRHP (National Park Service 1997b:40–41). Given its content and context, 42DC348 offers the potential to yield additional information about regional history and meets the criteria of significance for the NRHP under Criterion D.

Site 42DC348 has been previously listed on the NRHP. The additional documented features contribute to the overall site and its associated integrity. As such, SWCA recommends that 42DC348 remains eligible for the NRHP under Criteria A, C, and D.

42DC3543

Site Type: Agriculture/Subsistence
Date: 1929
NRHP Eligibility: Not eligible
Documentation Status: Update
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC3543 is a previously recorded historic homestead on private property adjacent to Indian Creek in Indian Canyon. The depositional context is alluvial. The site was originally recorded in 2013 by Montgomery Archaeological Consultants (MOAC). It was described as an abandoned ranch consisting of two corrals, a dilapidated animal shed, a ditch, and a depression. The artifact assemblage consisted of one colorless glass bottle, wire nails, and metal fragments. The site was noted to be in poor condition, with impacts from erosion and structural decay (New 2013). MOAC recommended the site not eligible for the NRHP under any criterion.

SWCA re-located and updated the site in 2019. The site is in deteriorating condition as a result of severe impacts, including sheetwash erosion, the Indian Creek arroyo that is encroaching on a site feature, and ephemeral drainages that are cutting through multiple features. In addition, disturbances from a road that cuts through the southern portion of the site and dense vegetation are present. All features from the original recording were re-located, but the colorless bottle was not found. No additional artifacts or features were observed. Based on the artifact assemblage and historic patent information, 42DC3543 appears to be a homestead site dating to the late 1920s.

Historical Background Research

A search of the BLM GLO records online indicates that a patent was issued for 160 acres of the SE ¼ of Section 21, Township 4 South, Range 5 West in the area where this site is located. The patent was issued to Charles W. Giles in 1929 (GLO 1929). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42DC3543 is a previously recorded historic agriculture/subsistence site that is likely associated with a land patent issued to Charles W. Giles in 1929. The site was originally recorded in 2013 and recommended not eligible for the NRHP (with SHPO concurrence) due to its lack of association with any important events and lack of potential for additional data (New 2013). The site's artifact assemblage is too small to provide a specific date range and therefore the site cannot be associated with any events that have made a significant contribution to the broad patterns of history. In addition, historic background research did not identify any persons significant in our past in a local, state, or national context, and the site does not contain any features or artifacts with artistic components of high value. For these reasons, 42DC3543 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42DC3543 falls into the agriculture area of significance for the NRHP (National Park Service 1997a:40–41). Historic agricultural sites are a common site type in the Uinta Basin and can answer research questions pertaining to early settlement patterns and agriculture and subsistence strategies. But the site lacks features that suggest a permanent habitation. While the site has agriculturally related

features, they are in poor condition and cannot answer specific questions related to agricultural practices. Additionally, the site has been extensively impacted by erosion, and there is little, if any, potential for subsurface cultural materials in their original context. Therefore, the site does not meet the criteria of significance for the NRHP under Criterion D.

Although the site retains integrity of location and setting, it has limited potential for additional subsurface cultural materials and lacks the diagnostic artifacts and domestic features that would associate it with a specific historic period or theme. In summary, SWCA agrees with the original determination that 42DC3543 remains not eligible for the NRHP under any criterion.

42DC3802

Site Type: Transportation/Communication
Date: 1885–1960s
NRHP Eligibility: Eligible, Criterion A
Documentation Status: Update
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC3802 is a previously recorded historic transportation route that travels through Indian Canyon in the South Unit of the Ashley National Forest, along the foothills of the canyon. The historic road runs adjacent to US 191, with segments of US 191 overlapping the historic road. The on-site depositional context is characterized by light alluvial and colluvial erosion from the adjacent sandstone cliff bands that have transported sediments to and off the site. Overall, the site is in poor condition. Due to the nature of the site and the erosional activity, there is little potential for intact subsurface deposits.

The site was originally recorded in 2014 by HDR, Inc. as part of the Uinta Basin Railway Project (Page and Edwards 2014b) and documented as a historic road. The road was noted to be broken up into visible segments, with some sections destroyed by the construction of US 191 or two-track roads and trails. In total, 23 segments of the road were recorded. The earthen road included 13 features (culverts, walls, and concrete features), and the artifacts observed consisted of metal fragments, milled lumber, culvert fragments, wire fragments, rubber, tin cans, glass shards, brick, a wooden door, and a nail. The site was noted to have been disturbed by barbed wire fencing, which was likely used for agriculture. HDR, Inc. recommended the site eligible for the NRHP under Criterion A with SHPO concurrence.

SWCA updated the site in 2019 as part of the Uinta Basin Railway Project. The previously recorded segments that were updated in 2019 are S17 through S23. These sections included the previously recorded features F6 and F8 through F13; however, no new or previously recorded artifacts or features were observed along the segment of the site within the survey area, suggesting that further erosion to the site has occurred since the 2014 recording. The road first appears on GLO plats from the early 1900s (Uintah Meridian), and in some areas has been destroyed by modern US 191.

To summarize, 42DC3802 is a transportation site that had the most use from the late 1880s to 1960 and, in some portions, through the present day.

Historical Background Research

Site 42DC3802 is a road that has been utilized from the late 1880s through the present day. The recorded segments appear on the 1904 GLO plat for Township 4 South, Range 5 West (Stewart 1904) as the “Colton Vernal Road” and on the 1905 GLO plat for Township 6 South, Range 7 West (Stewart 1905) as the “Old Road” that runs through Left Fork Indian Canyon. Previous research suggests it may have

originally been built prior to 1883 by the U.S. Army and likely follows a Native American trail previously used by the Ute Indian Tribe (Page and Edwards 2014b). The historic road was used until the 1960s, and only some segments of this road remain. This road later gave way to the current US 191, which was built in the early 1970s and is still in use today (Barton 1998).

The Ute trail mentioned in the original site form may refer to 42DC328, which was fully recorded by the USFS in 2017 as the Indian Canyon Trail (Indian Canyon Road). Site 42DC328 includes a historic wagon road and US 191 along with the original trail (Isaacs and Knox 2017). While the two wagon roads may be related, these resources have been recorded separately, and SWCA has also updated the segments of 42DC328 encountered during this Project.

NRHP Eligibility Recommendation

Site 42DC3802 is a historic road located in Indian Canyon. The 2014 site form noted possible early Native American use of the area and recommended the site eligible for the NRHP under Criterion A. The SHPO concurred with this eligibility determination.

Historic research indicates that the site was built prior to 1883 and was a major transportation route between the Uintah Basin and the Emma Park area. Additionally, research suggests that the site may also have been an important trail used by the Ute Tribe (Page and Edwards 2014b). Therefore, the site is eligible under Criterion A.

The site is not linked to any specific individual(s) or their craftmanship within the historic context and therefore does not meet the criteria of significance for the NRHP under Criterion B. No buildings or structures were observed within the site and therefore the site does not meet the criteria of significance for the NRHP under Criterion C. The site has been thoroughly documented, and the ongoing erosion and nature of the site as a road leave little potential for intact subsurface cultural materials; therefore, 42DC3802 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC3802 maintains integrity of location, as the road has remained in its original alignment and the transportation the site facilitated happened in the area. The site does not maintain integrity of setting, feeling, or association due to the changes within the canyon across the last hundred years, nor does it retain integrity of workmanship, materials, or design, as the construction and creation of such roads is general and nonspecific.

In summary, SWCA agrees with the previous determination that 42DC3802 remain eligible for the NRHP under Criterion A.

42DC4128

Site Type: Specialty Site
Date: Formative
NRHP Eligibility: Eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42DC4128 is a newly recorded prehistoric rock art and artifact scatter located on a sandstone boulder on a small mesa, south of Sand Pass on private property. The rock art panel is located on a boulder in a larger boulder field at the base of a mesa. Deposition is both alluvial and colluvial. Sediments are poorly sorted light brown sandy loam with 5 to 10 percent gravel inclusions. Sediments at the base of the mesa

appear stable and indicate a potential for buried cultural materials. The site has been impacted by visitation; modern beer cans, vandalism, and possible looting were observed near the rock art panel. The panel is also located near a two-track road that provides easy access to the area.

The site consists of one petroglyph (F-01) and a small artifact scatter. F-01 is located on a large sandstone boulder and consists of three stipple-pecked figures: one anthropomorph, one wavy line, and one abstract figure. The anthropomorph has a slightly trapezoidal body and a bucket-shaped head with extensions suggesting a Fremont association. The artifact assemblage consists of one quartzite projectile point (P-01), one sandstone mano (P-02), two quartzite core fragments, and 10 fragments of fire-affected rock (FAR). The FAR is scattered around the site and does not exhibit evidence of patterning or concentrations. The petroglyph style and the artifact assemblage suggest that 42DC4128 is a Fremont specialty site dating to the Formative Period.

NRHP Eligibility Recommendation

Site 42DC4128 is a newly recorded Fremont specialty site consisting of one rock art panel and a small artifact scatter south of Sand Pass. The small artifact assemblage and temporally diagnostic rock art style cannot be directly associated with a "specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of a community, a state, or the nation" or "any individuals whose activities are demonstrably important within a local, State, or national historic context" (National Park Service 1997b:12, 14). Given these factors, 42DC4128 does not meet the criteria of significance for the NRHP under Criteria A and B.

Site 42DC4128 has one Fremont-style rock art panel with three figures. Given that the panel does embody "the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction" (National Park Service 1997b:17), 42DC4128 meets the criteria of significance for the NRHP under Criterion C.

Prehistoric sites in the Uinta Basin have the potential to address research questions pertaining to region-specific adaptations seen through settlement patterns and distribution, material source use, and subsistence strategies and patterns. Site 42DC4128 lacks the artifact assemblage and features that would suggest habitation; therefore, it cannot answer research questions pertaining to settlement patterns. The site also lacks the raw material that could answer questions related to material source use; however, the site does have artifacts related to subsistence activities and has the potential for cultural materials in a buried context that could answer questions pertained to subsistence strategies and patterns. Given these factors, 42DC4128 meets the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location, workmanship, and association. Although modern oil and gas infrastructure surrounding the site has altered the original landscape and diminished the site's temporal aesthetic, the site still retains the integrity needed to convey significance for the NRHP.

In summary, SWCA recommends 42DC4128 eligible for the NRHP under Criteria C and D.

42DC4129

Site Type: Task Specific

Date: Unknown Prehistoric
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): None (previously Indian Canyon)

Site Description

Site 42DC4129 is a newly recorded prehistoric task-specific site on private property in a shallow wash on an alluvial plain south of Sand Pass. On-site deposition is alluvial. The site has ongoing impacts from sheetwash erosion that has deposited the artifacts in a secondary context. No additional impacts or disturbances were observed.

The site consists of a small, sparse lithic scatter consisting of 30 CCS and quartzite flakes. Tertiary flakes dominate the assemblage. The maximum density of artifacts is three flakes per m^2. No temporally diagnostic artifacts, features, or concentrations were observed. The assemblage suggests that the site is a secondary deposit of a lithic reduction area dating to an unknown prehistoric period.

NRHP Eligibility Recommendation

Site 42DC4129 is a newly recorded lithic scatter dating to an unknown prehistoric period in a wash south of Sand Pass. The small assemblage lacks temporally diagnostic artifacts and cannot be placed in a specific prehistoric period; therefore, it cannot be associated with any events that have made a significant contribution to the broad patterns of prehistory. In addition, there is no evidence that this site was connected to any significant individuals, nor does the site contain any artistic components of high value (National Park Service 1997b). For these reasons, 42DC4129 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Prehistoric artifact scatters in the Uinta Basin have the potential to address research questions pertaining to region-specific adaptations seen through settlement patterns and distribution, material source use, and subsistence strategies and patterns (Gatenbee and Beck 2017). But 42DC4129 lacks the artifact assemblage and features that would provide information pertaining to settlement patterns as well as the raw material that could answer questions related to material source use. Lastly, the site does not contain any subsistence-related features or artifacts and therefore cannot answer research questions pertaining to subsistence patterns and strategies (National Park Service 1997b). The site's location in a wash with ongoing erosion indicates a lack of potential for cultural materials in primary buried context; therefore, 42DC4129 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC4129 does not retain integrity of setting or location because it is in secondary context surrounded by oil and natural gas infrastructure, and it also does not retain integrity of design, materials, workmanship, feeling, and/or association. In summary, SWCA recommends 42DC4129 not eligible for the NRHP under any criterion.

42DC4130

Site Type: Task Specific

Date: Unknown Prehistoric
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42DC4130 is a newly recorded prehistoric task-specific site located on private property in a floodplain at the base of a small bench south of the Duchesne River. On-site deposition is the result of ongoing alluvial processes. Sediments are light brown sandy loam with approximately 2 percent pebble inclusions. The site has been impacted by sheetwash erosion that has left the artifacts in a secondary context. A fence is nearby, but it is not an impact; no other impacts or disturbances were observed.

The site consists of a small lithic scatter. The lithic assemblage consists of 22 quartzite and CCS flakes and a quartzite core fragment. The assemblage is dominated by tertiary flakes, but all stages of reduction were observed. No temporally diagnostic artifacts, features, or concentrations are present. The site appears to be a lithic reduction area dating to an unknown prehistoric period.

NRHP Eligibility Recommendation

Site 42DC4130 is a newly recorded prehistoric artifact scatter dating to an unknown prehistoric period located at the base of a bench in a floodplain. The small assemblage lacks temporally diagnostic artifacts and cannot be placed in a specific prehistoric period; therefore, it cannot be associated with any events that have made a significant contribution to the broad patterns of prehistory. In addition, there is no evidence that this site was connected to any significant individuals, nor does the site contain any artistic components of high value. For these reasons, 42DC4130 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Prehistoric artifact scatters in the Uinta Basin have the potential to address research questions pertaining to region-specific adaptations seen through settlement patterns and distribution, material source use, and subsistence strategies and patterns. But 42DC4130 lacks the artifact assemblage and features that would provide information pertaining to settlement patterns and distribution. Also, the site lacks the raw material that could answer questions related to material source use. Lastly, the site lacks the artifact assemblage and prehistoric features related to subsistence activities and therefore cannot answer important research questions pertaining to subsistence patterns and strategies. The site's location on alluvial deposits with ongoing erosion indicates a lack of potential for cultural materials in a buried context; therefore, 42DC4130 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC4130 is in a secondary context surrounded by oil and gas activities and does not retain integrity. In summary, SWCA recommends 42DC4130 not eligible for the NRHP under any criterion.

42DC4131

Site Type: Other Historic
Date: 1940–1960
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC4131 is a newly recorded historic domestic site on private property on top of a gently sloping knoll on South Myton Bench. On-site deposition is alluvial and colluvial erosion is ongoing as a number of artifacts are visibly eroding downslope. The area around the site is used for oil and natural gas activities, including pad construction, roads, and fences. The majority of artifacts are crushed and broken and may be in a secondary context due to erosion. An improved dirt road (D-01) also cuts through the northern portion of the site.

The site consists of a small, sparse historic artifact scatter. The assemblage consists of a few ceramic tableware fragments, glass, and approximately 31 cans that include sanitary cans, two hole-in-cap cans, and 15 hole-in-top types. The glass assemblage includes colorless, amethyst, amber, and aqua glass shards and two bottles with maker's marks (H-01 and H-02). H-01 is a colorless glass bottle base with a Glass Containers Corporation maker's mark (ca. 1934–1968) (Lockhart et al. 2015b). H-02 is a colorless glass bottle with a Northwestern Glass Company maker's mark (1931–1987) (Lockhart et al. 2015g). No features or concentrations were observed. The artifact assemblage suggests that 42DC4131 is a historic domestic site dating between 1934 and the 1960s.

Historical Background Research

A search of BLM GLO records online indicates that a patent was issued for the NW ¼ of the NE ¼ of Section 27, Township 4 South, Range 3 West in the area where this site is located. The Stock-Raising Homestead Act patent was issued to Jesse Rhodes in 1936 (39 Stat. 862) (GLO 1936). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42DC4131 is a newly recorded historic artifact scatter on South Myton Bench. Diagnostic artifacts at the site suggest multiple and broad date ranges, with a probable use episode(s) between 1934 and the 1960s.

The presence of ceramic tableware suggests this historic artifact scatter falls into the domestic area of significance for the NRHP (National Park Service 1997a:40–41). Historical background research 42DC4131 did not identify any persons significant in our past in a local, state, or national context. In addition, 42DC4131 only consists of an artifact scatter, with no features or elements that could be important for their physical design or construction. Therefore, 42DC4131 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42DC4131 is a diffuse scatter of historic artifacts dominated by cans and represents a common site type in the Uinta Basin. The site is located on top of a gently sloping knoll with artifacts eroding downslope, indicating a limited potential for buried cultural materials in their original context. The site has been thoroughly documented and is unlikely to yield any additional data beyond that reported here. Overall, the site is unlikely to yield important information about broad patterns of regional history. Therefore, 42DC4131 does not meet the criteria of significance for the NRHP under Criterion D.

The site appears to largely be in secondary context and is surrounded by oil and natural gas activities; it retains no integrity of feeling, design, and/or association. The only aspect of integrity the site does retain is location. In summary, SWCA recommends 42DC4131 not eligible for the NRHP under any criterion.

42DC4132

Site Type: Other Historic
Date: 1934–1960
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC4132 is a newly recorded historic domestic artifact scatter located on private property in a drainage along the edge of South Myton Bench. Erosion has impacted the site; artifacts have been displaced and are not in their original context. No additional impacts or disturbances were noted.

The historic artifact assemblage consists of 60 sanitary cans, glass shards from an estimated 28 vessels, ceramic sherds from an estimated six vessels (white ware and earthenware, with no trademarks), various metal pieces, and a rubber boot sole. Glass shards include cobalt, colorless, green, amber, and white milk glass. H-01 is a colorless glass bottle base with an embossed "LB" maker's mark (n.d.) (Lockhart et al. 2015d); and H-02 is an amber bottle base with a Glass Containers Corporation maker's mark (1934–1968) (Lockhart et al. 2015b). Milk glass and cobalt glass can be dated to between circa 1890 and circa 1960 (Lindsey 2015). No features were observed. The artifact assemblage suggests that 42DC4132 dates to between 1934 and 1960 and appears to be a single dumping event.

Historical Background Research

A search of the BLM GLO records online indicates that a patent was issued for the NW ¼ of Section 17, Township 4 South, Range 2 West in the area where this site is located. The patent was issued to A. J. Willis Moon in 1959 (GLO 1959). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42DC4132 is a newly recorded historic artifact scatter that based on the diagnostic artifacts observed dates to between 1934 and 1960. Historic artifact scatters could fall into the domestic, recreation and culture, or agriculture/subsistence areas of significance for the NRHP, but the site lacks a direct connection to any of these themes (National Park Service 1997a:40–41). Historical background research for 42DC4132 did not identify any persons significant in our past in a local, state, or national context. In addition, 42DC4132 consists of an artifact scatter, with no features or elements that could be important for their physical design or construction. Therefore, 42DC4132 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42DC4132 is a historic artifact scatter, a common site type in the Uinta Basin. The site is located in a drainage with artifacts eroding downslope indicating a lack of potential for cultural materials in a buried context. The site has been thoroughly documented, and it is unlikely any additional data could be procured. Archival data is unlikely to produce important information about this site or answer any important research questions. Overall, 42DC4132 is unlikely to yield important information. Therefore, 42DC4132 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC4132 does not retain any aspect of integrity. In summary, SWCA recommends 42DC4132 not eligible for the NRHP under any criterion.

42DC4133

Site Type: Other Historic
Date: 1960–1970
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Well Draw

Site Description

Site 42DC4133 is a newly recorded historic artifact scatter on BLM-managed land [redacted]. The site is on alluvially deposited sediments and has been subject to moderate impacts from sheetwash erosion and two seasonal drainages that cut through the site area. Although there is potential for buried cultural materials, the erosional nature of the site suggests that artifacts will not be in their original context. Additional disturbances include a north-south-trending barbed wire fence (D-01) that transects the site. Based on the extent of these adverse impacts, the overall site condition is deteriorating.

The site assemblage consists of two distinct artifact concentrations (C-01 and C-02) of metal, glass, porcelain, building materials, and historic ceramics. No features were observed. H-01 through H-12 were recorded in C-01: H-01 is a green glass Mentholatum jar (1952–1959) (Adkison 2002); H-02 is a colorless glass bottle base embossed with "Helene Curtis"; H-03 is a milk glass cosmetics jar with "POND'S" embossed on the base; H-04 is a colorless glass liquor bottle base fragment; H-05 is a colorless glass jar with a Glass Containers Corporation maker's mark (1934–ca. 1968) (Lockhart et al. 2015b); H-06 is a colorless glass bottle base with "Duraglas" and Owens-Illinois maker's marks (1954–1963) (Lockhart and Hoenig 2018); H-07 is a colorless glass shoe polish bottle embossed with "Equire Scuff-Kote" on the body and "Knomark Mfg. Co. Inc. / Bklyn, N.Y." along with an "Oil City Glass Bottle Co." maker's mark (1952–1969) (Toulouse 1971:560); H-08 is a cobalt glass jar embossed with "Noxema"; H-09 is a colorless glass bottle with a Ball maker's mark (1933–1960) (Lockhart et al. 2013:68); H-10 is a colorless glass bottle base with a Hazel-Atlas maker's mark (1923–ca. 1982) (Lockhart et al. 2018a); H-11 is a colorless glass bottle; and H-12 is an amber glass prescription bottle. Both H-11 and H-12 have Owens-Illinois maker's marks (1959–present) (Lockhart and Hoenig 2018). H-13 is a colorless glass bottle fragment and base with an Owens-Illinois maker's mark (1959–present) (Lockhart and Hoenig 2018); it was recorded outside of either artifact concentration.

H-100 through H-111 were recorded in C-02 and consist of metal car parts (H-100 and H-111), an undetermined metal coin (H-107), and nine glass bottle bases with various makers' marks. H-101 is a pink milk glass jar with "Pond's" embossed on the base; H-102 is a colorless glass jar with an Owens-Illinois maker's mark (1959–present) (Lockhart and Hoenig 2018); H-103 is a brown/dark amber glass aspirin bottle embossed with "Whitehall" on a side panel, with an Owens-Illinois maker's mark (1959–present) (Lockhart and Hoenig 2018); H-104 is a green glass Mentholatum jar (1952–1959) (Adkison 2002); H-105 is a colorless glass medicine bottle with a Kerr Glass Manufacturing Corporation maker's mark (1944–ca. 1999) (Lockhart et al. 2015c); H-106 is a milk glass bowl or mug base with a Fire King maker's mark (1951–1960) (Fire-King Mug 2019); H-108 is a fragment of a milk glass Seaforth aftershave bottle with a partial "Scotch Heather" label (1956–ca. 1981) (Bennett 2019); H-109 is a colorless three-sided glass bottle with a plain keystone maker's mark (1870–1900) (Lockhart et al. 2015e); and H-110 is a colorless glass bottle marked "Listerine" on the shoulder with a Hazel-Atlas maker's mark on the base (1923–ca. 1982) (Lockhart et al. 2018d). Additional artifacts include numerous sanitary, coffee, and oils cans; a "FORD" key (H-111); and a 1956 Utah license plate (H-100). Based on the site assemblage, 42DC4133 is a likely trash dump(s) that dates to between 1900 and the present, with a more narrow period of use during the 1960s.

Historical Background Research

A search of the BLM GLO records online indicates that no patent was issued for Section 18, Township 8 South, Range 17 East in the area where this site is located. No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42DC4133 is a newly recorded historic artifact scatter with a broad date range of 1900 to the present. Given the lack of information found in archival research, the presence of diagnostic artifacts that date to a later date (i.e., 1960s), and the fact that the site represents materials commonly found in Uinta Basin historic artifact scatters (Oliver et al. 2017b), the site cannot be directly associated with "a specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation" or "any individuals whose activities are demonstrably important within a local, State, or national historic context" (National Park Service 1997b:12, 14). The site does not contain any features or significant artifacts that "embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction" (National Park Service 1997b:17). Given these factors, 42DC4133 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42DC4133 is a historic artifact scatter that could fall into the domestic, recreation and culture, or agriculture/subsistence areas of significance for the NRHP, but the site lacks a direct connection to any of these themes (National Park Service 1997b:40–41). Historic artifact scatters are a common site type in the Uinta Basin and can answer research questions pertaining to early settlement patterns and agriculture and subsistence strategies; however, 42DC4133 is a surface manifestation in an erosional depositional context with little (if any) potential for intact subsurface cultural deposits. The site is likely a single or double dumping event and is unlikely to provide any additional data beyond what was documented in survey recordation; additional archival data is unlikely to produce important information about this dumping locus. Therefore, 42DC4133 is unlikely to yield important information about regional history and does not meet the criteria of significance for the NRHP under Criterion D.

Although the site retains integrity of location, design, setting, and materials, the erosional nature of the site area and lack of significant diagnostic artifacts limit the site's ability to be narrowed to a specific historic theme. In summary, SWCA recommends 42DC4133 not eligible for the NRHP under any criterion.

42DC4134

Site Type: Other Historic
Date: 1945–1951
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42DC4134 is a newly recorded historic artifact scatter on BLM-managed land in the Uinta Basin [redacted]. The on-site depositional context is largely residual subangular gravels with a thin veneer of aeolian silt and very fine sand capping the surface. Sediments are shallow and display no potential for depth. Except for some possible deflation and erosion, no evidence for post-depositional disturbance was observed.

In 2019, SWCA documented the site as a diffuse ca. 50 × 50–m scatter of domestic trash dominated by cans. A total of 15 cans, three pieces of milled lumber (lath), and one complete amber Duraglas bottle (H-01) that dates to 1951 (Lockhart and Hoenig 2018:299–301) were observed. The cans consist of 11 sanitary cans and four hole-in-top types, three of which are embossed with "PUNCH HERE" (1935–1945) (Rock 1989:107). Based on the types of artifact, the site dates to between 1945 and 1951. Although most of the materials were found in the western portion of the site in association with the amber bottle, materials occur in a sparse scatter and no artifact concentrations or features were observed. The site size and content strongly suggest that it represents a single dumping episode.

Historical Background Research

A search of the BLM GLO records online indicates that no patent was issued [redacted]. No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42DC4134 is a historic artifact scatter atop a plateau south of Myton. Although temporally diagnostic artifacts were observed and signal use ca. 1945–1951, the site cannot be directly associated with "a specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation" or "any individuals whose activities are demonstrably important within a local, State, or national historic context" (National Park Service 1997b:12, 14). The site does not contain any features or significant artifacts that "embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction" (National Park Service 1997b:17). As such, 42DC4134 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Historic artifact scatters in the Uinta Basin can provide significant data to address research questions pertaining to the early settlement and ranching activities of Euro-Americans; however, 42DC4134 consists of one bottle and a nondescript, homogeneous assemblage of cans that are well documented and common in the area. The site contains temporally diagnostic artifacts that can be placed in a date range but cannot be ascribed to specific people or events. There is also no potential for cultural deposits in buried context or extracting any additional data beyond that gathered in survey recordation. For these reasons, the site is unlikely to provide any "information to contribute to our understanding of human history or prehistory" (National Park Service 1997b:21), and it does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC4134 retains integrity of location and design because it appears to be in its original context, and integrity of materials is retained because the artifacts are complete and well preserved. But given the types of artifacts present and because they now sit in a developed oil field, integrity of setting, association, workmanship, and feeling are not retained.

In summary, SWCA recommends 42DC4134 not eligible for the NRHP under any criterion.

42DC4135

Site Type: Other Historic

Date: 1910–1921
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42DC4135 is a newly recorded historic artifact scatte [redacted] The on-site depositional context is largely residual. Although a veneer of aeolian silt and very fine sand caps the surface, sediments are shallow and display no potential for depth. A few small rills signal some alluvial erosion down the gentle slope, but no significant disturbances were observed; the site is in stable condition.

The artifact assemblage consists largely of domestic items that include cans (dominant) and fragments of two colorless canning jars. Cans (n = 24) include sanitary, hole-in-top, and hole-in-cap (1820 to the mid-1930s) (Rock 1984:100–106) types along with a small rectangular meat tin and one coffee can (H-01). Most of the cans are crushed. H-01, the coffee can, is embossed with "CANCO" on the base (1910–1921) (Reilly 2017). Three lengths of wire were also identified, including one small bundle. Artifacts are diffusely scattered across the site area, and no features or discrete artifact concentrations were observed. Based on the artifact assemblage, the site dates to between 1820 and the present, with most artifacts dating to between 1910 and 1921. The site size and content strongly suggest that it represents a domestic refuse site.

Historical Background Research

A search of BLM GLO records online indicates that no patent was issued [redacted]. No additional information was found for this area.

NRHP Eligibility Recommendation

42DC4135 is a newly documented diffuse historic artifact scatter that dates to sometime between 1910 and 1921. Only commonplace artifacts were observed at the site, and it cannot be directly associated with "a specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation" or "any individuals whose activities are demonstrably important within a local, State, or national historic context" (National Park Service 1997b:12, 14). The site does not contain any features or significant artifacts that "embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction" (National Park Service 1997b:17). Given these factors, 42DC4135 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Historic artifact scatters can provide useful data in addressing research questions pertaining to early settlement and ranching activities in the Uinta Basin (Oliver et al. 2017b). This site consists almost entirely of food and beverage cans that represent a common (and well-documented) artifact class in the area that cannot be ascribed to specific people or events. Moreover, no concentrations or features were observed; the site is atop a plateau where there is no potential for materials in buried context; and further archival research or field investigations would not be likely to yield any additional data beyond what was gathered in survey recordation. For these reasons, the site is unlikely to provide any "information to

contribute to our understanding of [regional] human history" (National Park Service 1997b:21), and it does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location, setting, and feeling because it appears to be in its original location and the immediate environment is relatively unchanged. Integrity of materials is also retained because the observed artifact assemblage is well preserved. But due to the types of artifacts present and their distribution, the site does not convey a particular pattern, signal a particular period, or provide new or useful information on regional history, and integrity of design, workmanship, and association are not retained.

In summary, SWCA recommends 42DC4135 not eligible for the NRHP under any criterion.

42DC4136

Site Type: Transportation/Communication
Date: Pre-1905 to ca. 1950
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Indian Canyon, Whitmore Park

Site Description

Site 42DC4136 is a newly recorded historic linear site in a small valley in Jones Hollow Canyon south of Left Fork Indian Canyon and US 191. The site crosses USFS land and private property. The on-site depositional context is alluvial, and a portion of the road travels through a streambed. The alignment has been impacted by alluvial erosion, continued use along the northern end of the site, as well as vegetation growth along the southern portion, which has nearly obscured the road in this area.

The site is a segment of a road alignment that trends south from US 191 across Indian Creek, through a private inholding and into Jones Hollow Canyon, where it enters USFS land, then follows the ephemeral canyon drainage before it turns to the southeast and climbs a low alluvial fan. The recorded segment is 1,595 feet long. The road alignment is generally a little-used, shallowly incised two-track with a maximum width of 15 feet, although it averages 7 feet across. No features or artifacts were observed in association with the site.

Historical Background Research

A search of BLM GLO records online shows the road in Sections 11–13 on the 1905 GLO plat for Township 6 South, Range 7 West (Stewart 1905). The road is labeled "Road to Colton" on the 1905 GLO plat, and the alignment that is now US 191, southwest of the intersection, is named "Road from Colton to Mines." The road is not present on any available USGS quadrangle, but "Cabins" are marked near the road's intersection with US 191 on the Price, Utah, 1956 USGS 1:250,000 scale quadrangle (USGS 1956), and a structure is plotted there on the Jones Hollow, Utah, 1968 USGS 1:24,000 scale quadrangle (USGS 1968).

A search of BLM GLO records online indicates that three patents were issued in Section 13, Township 6 South, Range 7 West. A Mineral Patent-Placer (015 Stat. 0251) was issued to the Raven Mining Company in 1907 for the Thoman No. 1 claim in the S ½ of the SE ¼ of Section 13, at the southeastern end of the road (GLO 1907). A second mineral patent was issued to the Pittsburg Salt Lake Oil Co. in 1911 for the Carbon No. 2 claim overlapping the southern edge of the Thoman No. 1 claim (GLO 1909, 1911a). A third patent was issued under the authority of the 1862 Homestead Act (12 Stat. 392) to Eyner

Nielsen in 1920 for a total of 160 acres in Sections 11–14, at the confluence of the two canyons and where the cabins are located (GLO 1920). No additional information was found for this area.

Site 42DC4136 likely accessed the Thoman and Carbon claims and connected them to the "Road from Colton to Mines"/US 191; however, the mines are not plotted in the Mineral Resources Data System (MRDS) database, which suggests there was little to no mineral production. Colton, Utah, was founded in Utah County in the 1880s; it originated as a railway station on the Denver and Rio Grande Western Railroad line and was primarily a coal town (Holzapfel 1999:134).

NRHP Eligibility Recommendation

Site 42DC4136 is a newly recorded historic road alignment that is visible on a 1905 GLO plat. Historic roads fall into the transportation and communication areas of significance for the NRHP (National Park Service 1997a:40–41). The road is labeled "Road to Colton" on the 1905 GLO plat, and it appears to be an access road to the nearby Carbon and Thoman mining claims. But these claims do not appear in the MRDS database and the road does not appear to have been an important transportation route in the area; therefore, the site does not meet the criteria of significance for the NRHP under Criterion A.

Historical background research for 42DC4136 did not identify any persons significant in our past in a local, state, or national context, and the site has no elements that could be important for their physical design or construction. Therefore, 42DC4136 does not meet the criteria of significance for the NRHP under Criteria B and C.

Historic roads in the Uinta Basin and surrounding areas can potentially provide data to address research questions pertaining to Euro-American settlement of the region; however, no artifacts or features were associated with the surface manifestation of the site, and it is therefore unlikely that there are subsurface deposits that could provide information about the site's history. In addition, further archival research is unlikely to yield additional information about the history of the site. For these reasons, the site does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location and setting, as it appears to still follow its original alignment and the surrounding landscape is relatively unaltered except for where the road crosses private lands. The site does not retain integrity of workmanship, materials, association, or design because the construction and creation of roads is general and nonspecific; integrity of feeling is impacted by vegetation overgrowth due to lack of use. In summary, SWCA recommends 42DC4136 not eligible for the NRHP under any criterion.

42DC4137

Site Type: Other Historic
Date: 1945–1955
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42DC4137 is a newly recorded historic artifact scatter [redacted] Because much of the site is scattered [redacted], the depositional context is residual and colluvial, and a few rills mark some alluvial erosion. Some artifacts were found partially buried [redacted]; these doubtless occur

in secondary context, and the potential for additional artifacts buried in primary context is unlikely. Aside from the discernable downslope movement of many artifacts, no other disturbances were observed.

The site is a diverse scatter of historic artifacts dominated by domestic items. Included are canning jar fragments, windowpane glass, pieces of glazed tableware with a floral pattern, a metal door handle plate, two muffler parts (H-07), a Utah license plate that dates to 1948 (H-03), one Conoco Continental Oil Company can (H-06) (1933–present) (Rock 1993:12), and two halves (top and bottom) of a metal toy car that appears to have been painted green (H-08). Forty-two cans were identified and consist of sanitary and hole-in-top types, two rectangular meat tins, and two crushed external friction cans and their lids. Glass vessels include four colorless bases that have maker's marks: H-01 has a Hazel Atlas maker's mark (1923–ca. 1982) (Lockhart et al. 2015a); H-02 has a Northwestern Glass Co. maker's mark (1931–1987) (Lockhart et al. 2015f); H-04 and H-09 both have Owens-Illinois maker's marks (1929–1954) (Lockhart and Hoenig 2018:299–301); and H-05 is an amber bottle body shard adorned with an unknown embossed "A" design. Materials appear continuously down the steep ridge slope onto the neighboring sagebrush flat and no features or artifact concentrations were identified.

Based on the artifact assemblage, the site dates to between 1923 and the present, with most artifacts occurring between 1945 and 1955. The site's size and content strongly suggest that it represents a domestic refuse scatter.

Historical Background Research

A search of BLM GLO records online did not produce any patents [redacted]

NRHP Eligibility Recommendation

Site 42DC4137 is a newly recorded historic artifact scatter that based on the observed diagnostic artifacts dates between the late 1940s and early 1950s. Historic artifacts at the site fall into the recreation and culture, transportation, and domestic areas of significance for the NRHP; the site lacks a direct connection to any of these themes (National Park Service 1997a:40–41), and it appears to represent a single trash dumping episode.

Historic artifact scatters can provide useful data in addressing research questions pertaining to early settlement and ranching activities in the Uinta Basin (Oliver et al. 2017b). However, historical background research did not identify any connections to important events or trends, and the literature review did not identify any persons significant in our past in a local, state, or national context. In addition, the site only consists of an artifact scatter with no features or other elements that could be important for their physical design or construction. Therefore, 42DC4137 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42DC4137 is a historic artifact scatter, a common site type in the Uinta Basin. The site is largely a surface manifestation, and given its depositional setting, most (if not all) materials are in a secondary context. In addition, the site has been thoroughly documented, and it is unlikely to yield any additional data from further archival research or subsequent field investigations. Overall, 42DC4137 does not offer the potential to yield important information about Uinta Basin history, and therefore it does not meet the criteria of significance for the NRHP under Criterion D.

Site 42DC4137 retains only integrity of setting because it appears that the immediate area has changed little since it was occupied. All other aspects of integrity have been adversely impacted by the downslope movement and degradation of artifacts.

In summary, SWCA recommends 42DC4137 not eligible for the NRHP under any criterion.

42DC4138

Site Type: Transportation/Communication
Date: Pre-1904–present
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Indian Canyon

Site Description

Site 42DC4138 is a newly recorded historic road that is visible on historic GLO and USGS maps on private property in a small valley in Coyote Canyon south of US 40. The on-site depositional context is alluvial. The alignment has been impacted by alluvial erosion as well as regular road maintenance and improvements.

The site is a segment of road alignment that trends east-west through the valley. The recorded segment is 3.2 miles long. Most of the alignment is crowned and ditched and has a maximum width of 30 feet. The maintained road becomes a two-track at its eastern end, with a maximum width of 8 feet. The maintained section has been graded and is used to access residential areas. No features or artifacts were observed in association with the road.

Historical Background Research

A search of BLM GLO records online shows a portion of the road in Section 18 on the 1904 GLO plat for Township 4 South, Range 4 West (Anderson 1904), although the GLO plat does not cover Sections 16 and 17; the road is labeled "Colton-Vernal Road." The recorded segment within Sections 16 and 17 is visible on the Duchesne, Utah, 1939 USGS 1:125,000 scale quadrangle and the Duchesne NE, Utah, 1964 USGS 1:24,000-scale quadrangle (USGS 1939, 1964).

Vernal was founded in the 1880s and became the Uintah County seat in 1897 (Burton 1996:8, 87). Colton was also founded in Utah County in the 1880s, but it originated as a railway station on the Denver and Rio Grande Western Railroad line and was primarily a coal town (Holzapfel 1999:134). A stage mail route between the two cities was established in 1912 that crossed Indian Canyon and likely used the Colton-Vernal Road; it was likely supplanted by the introduction of air mail in 1929 (Holzapfel 1999:219). No other information about the road could be found.

NRHP Eligibility Recommendation

Site 42DC4138 is a newly recorded historic road alignment that is visible on historic GLO and USGS quadrangles. Historic roads fall into the transportation and communication areas of significance for the NRHP (National Park Service 1997a:40–41). The road is labeled "Colton-Vernal Road" on the 1904 GLO plat, and it may have been the primary mail route during the early twentieth century. But Colton was a small coal town that was abandoned in the 1950s; the road does not appear to have been an important transportation route in the area and therefore does not meet the criteria of significance for the NRHP under Criterion A.

Historical background research for 42DC4138 did not identify any persons significant in our past in a local, state, or national context, and the site has no elements that could be important for their physical design or construction. Therefore, 42DC4138 does not meet the criteria of significance for the NRHP under Criteria B and C.

Historic roads in the Uinta Basin and surrounding areas can potentially provide data to address research questions pertaining to Euro-American settlement of the region; however, no artifacts or features were associated with the surface manifestation of the site, and it is therefore unlikely that there are subsurface deposits that could provide information about the site's history. Lastly, further archival research is unlikely to yield additional information about the history of the site. For these reasons, the site does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location but lacks integrity of setting, materials, feeling, and association. The landscape surrounding the road has modern infrastructure, which detracts from the site's historic character. The site also lacks integrity of workmanship and design due to impacts from erosion and modern maintenance activities. In summary, SWCA recommends 42DC4138 not eligible for the NRHP under any criterion.

42UN2787

Site Type: Agriculture/Subsistence
Date: 1905–present
NRHP Eligibility: Eligible
Documentation Status: Update
Proposed Route(s): Wells Draw

Site Description

Site 42UN2787 is the previously recorded historic Myton Townsite Canal located on an alluvial plain south of the Duchesne River at the base of Leland Bench in the Uinta Basin. It is located on private property and the Uintah and Ouray Indian Reservation east of Myton, Utah, and southwest of Randlett, Utah. The site is adjacent to the floodplain of the Duchesne River and is in relatively stable condition. Due to the nature of the site, there is little (if any) potential for subsurface cultural-bearing deposits. Save for some inherent erosion, no adverse impacts or disturbances were observed.

Various segments of the site have been documented at different times, and this documentation covers a newly recorded segment within the Uinta Basin Railway Project survey area. Overall, 42UN2787 is a linear site that trends roughly east-west and extends from the segment recorded in this documentation into Duchesne County to the west, where the Smithsonian number changes to 42DC1381 (Nielson 2017).

In 2019, SWCA revisited the site and documented a previously unrecorded segment of the 42UN2787 canal system located on private property and the Uintah and Ouray Reservation. The newly recorded segment consists of a wood water control feature (F-01), a metal and wood water control feature (F-02), a south lateral off of the main canal alignment (F-03), a metal water control feature (F-04) that is associated with the south lateral, and a faint sublateral (F-05) that appears to no longer be in use. An overgrown two-track road parallels the main alignment but does not intersect or impact the alignment. No artifacts were formally recorded, but a large, nondiagnostic metal fragment was observed at the eastern extent of the main alignment. Based on the site assemblage and previous documentations, 42UN2787 is a historic canal system that was constructed beginning in 1905 and is still utilized today to serve farming and ranching interests of the local Ute Indian Tribe and Anglo-American settlements (Hayden et al. 2012; Nielson 2017). The lack of temporally diagnostic artifacts associated with this segment does not allow for a more refined date range.

Historical Background Research

A search of BLM GLO records online indicates that a patent was issued for the NE ¼ of Section 36, Township 3 South, Range 1 West in the area where this site is located. The patent was issued to the State of Utah in 1965 (GLO 1965a). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42UN2787 is the previously documented Myton Townsite Canal located on an alluvial plain south of the Duchesne River at the base of Leland Bench. Historic canals in the Uinta Basin can answer research questions pertaining to early settlement patterns and agriculture and subsistence strategies throughout the region (Oliver et al. 2017a). Previous site forms indicate that construction of the canal began in 1905 to serve farming and ranching interests of local Ute Tribal and Anglo-American settlements. The canal system is still in use and consists of numerous laterals and water control features to distribute water throughout the basin, marking an important event in historic irrigation efforts in the region. Given the historic significance of the canal system and the fact that it is still utilized today, 42UN2787 meets the criteria of significance for the NRHP under Criterion A.

Site 42UN2787 falls into the agriculture/subsistence areas of significance for the NRHP (National Park Service 1997a:40–41) and has features consistent with other canals and laterals in the area, including wooden and concrete water control features. These are typical of canals in the Uinta Basin and do not demonstrate an association with any persons significant in our past in a local, state, or national context. The site does not contain any features or artifacts with artistic components of high value. Therefore, 42UN2787 does not meet the criteria of significance for the NRHP under Criteria B or C.

Site 42UN2787 has been well documented and researched. Historical background research associated with this segment did not yield any additional information on the history of the Myton Townsite Canal. Additionally, the lack of temporally diagnostic artifacts in association with this segment indicates that minimal additional data potential could be gained from this site segment. Additional archival data is unlikely to produce important information about early settlement and agricultural patterns in the Uinta Basin; therefore, 42UN2787 does not meet the criteria of significance for the NRHP under Criterion D.

The site is in good condition overall and retains integrity of location, design, workmanship, and association. Integrity of setting, feeling, and materials have not been retained, as modern infrastructure surrounds the site area that has detracted from the site's ability to convey a temporal aesthetic. But because the site is part of a larger canal system that proved important to early settlement and agricultural practices in the region, SWCA recommends 42UN2787 eligible for the NRHP under Criterion A.

42UN8919

Site Type: Task Specific
Date: Unknown Prehistoric
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): none (previously Indian Canyon)

Site Description

Site 42UN8919 is a newly recorded prehistoric task-specific site located on private property on an alluvial fan near Sand Pass, south of the Duchesne River. The alluvial processes impacting the site are slow moving and ongoing, causing artifacts to erode downslope and indicating mixed associations for any subsurface cultural materials. No additional impacts or disturbances were noted.

The site consists of a small lithic scatter; no features, tools, or concentrations were observed. The lithic assemblage consists of 30 red, white, gray, and brown CCS flakes. Tertiary flakes dominate the assemblage and secondary flakes were also observed. The maximum density of artifacts is five per m^2. No temporally diagnostic artifacts were observed. The assemblage suggests that the site is a lithic reduction area dating to an unknown prehistoric period.

NRHP Eligibility Recommendation

Site 42UN8919 is a newly recorded prehistoric task-specific lithic scatter dating to an unknown prehistoric period located at the base of an alluvial fan south of the Duchesne River. The small assemblage lacks temporally diagnostic artifacts and cannot be placed in a specific prehistoric period; therefore, it cannot be associated with any events that have made a significant contribution to the broad patterns of prehistory. In addition, there is no evidence that this site was connected to any significant individuals, nor does the site contain any artistic components of high value. For these reasons, 42UN8919 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Prehistoric artifacts scatters in the Uinta Basin have the potential to address research questions pertaining to region-specific adaptations seen through settlement patterns and distribution, material source use, and subsistence strategies and patterns; however, 42UN8919 lacks the artifact assemblage and features that could provide information pertaining to settlement patterns and distribution. Also, the site lacks the raw material that could answer questions related to material source use. Lastly, the site lacks the artifact assemblage and prehistoric features related to subsistence activities and therefore cannot answer important research questions pertaining to subsistence patterns and strategies. The site's location on alluvial deposits with ongoing erosion indicates a lack of potential for cultural materials in a buried context; therefore, 42UN8919 does not meet the criteria of significance for the NRHP under Criterion D.

Site 42UN8919 is in a secondary context surrounded by oil and gas activities; it retains no integrity. In summary, SWCA recommends 42UN8919 not eligible for the NRHP under any criterion.

42UN8923

Site Type: Domestic, Agriculture/Subsistence
Date: 1929–1960
NRHP Eligibility: Eligible
Documentation Status: First recording
Proposed Route(s): Wells Draw

Site Description

Site 42UN8923 is a newly recorded historic homestead site on private property with an associated artifact scatter on private property on the alluvial plain between Windy Ridge and Leland Bench. The site is on a plain fed by a lateral of the Myton Townsite Canal (42UN2787). Because erosional and alluvial impacts are minimal and sediments appear to be stable, the site could yield intact subsurface cultural deposits. The surface artifact scatter appears to have been impacted by recent visitors, evidenced by modern cans near the site area and the site's proximity to the road. A modern paved road (D-01) crosses the site boundary. The site is in a deteriorating condition.

Site 42UN8923 was also recorded as an architectural resource. Its architectural report parcel number/ID number is 170720004.

The site consists of a two-room log cabin (F-01), one dugout (F-02), a pile of rubble and fence posts (F-03), a corral (F-04), and a 30 × 30–foot artifact concentration (C-01) containing approximately 52 cans

(including tobacco tins, paint cans, and sanitary and hole-in-top types), glass fragments, and ceramic fragments, with a maximum artifact density of 20 artifacts per m². Two diagnostic artifacts were found in the concentration: H-01 is a brown glass bottle base fragment with an Obear-Nester Glass Co. maker's mark that dates to ca. 1915 to 1978 and H-02 is a colorless glass bottle base fragment with an Owens-Illinois Glass Company maker's mark dating to ca. 1929 to 1960 (Lockhart and Lindsey 2019). Additional artifacts include a stove part, three crushed wash tubs, and various pieces of milled wood and baling and barbed wire. The site's features and assemblage indicate that 42UN8923 is likely a homestead dating to between 1929 and 1960.

Historical Background Research

A search of BLM GLO records online indicates that patents were issued for the SE ¼ of Section 36, Township 3 South, Range 1 West in the area where this site is located. The patents were issued to the State of Utah in 1894 and 1965 (GLO 1894, 1965b). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42UN8923 is a newly recorded historic homestead site on an alluvial plain between Windy Ridge and Leland Bench. Historic homesteads in the Uinta Basin can answer research questions pertaining to early settlement patterns and agriculture and subsistence strategies throughout the region (Oliver et al. 2017b). The artifact assemblage provides a date range of 1929–1960. Although the log cabin is in good condition, historic background research did not identify any persons of historical significance in a local, state, or national context, and the site does not contain any features or artifacts with artistic components of high value. For these reasons, 42UN8923 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

Site 42UN8923 is a historic homestead that falls into the domestic and agriculture/subsistence areas of significance for the NRHP (National Park Service 1997a:40–41). The site has features consistent with historic homesteading, including a collapsed dugout, that could yield additional artifacts. Additional archival data could produce important information about this site and place it in the larger context of early settlement and agricultural patterns in the Uinta Basin. Given its content and context, 42UN8923 offers the potential to yield additional information about regional history and meets the criteria of significance for the NRHP under Criterion D.

The site is in good condition overall and retains several aspects of integrity: location, design, workmanship, and association. Integrity of setting, feeling, and materials have not been retained because modern infrastructure surrounds the site area and the artifact assemblage is likely incomplete; however, the site has features and artifacts consistent with other significant historic homesteads in the region.

In summary, SWCA recommends 42UN8923 eligible for the NRHP under Criterion D.

42UT1084

Site Type: Transportation/Communication

Date: 1880s–1950s
NRHP Eligibility: Not eligible
Documentation Status: First recording
Proposed Route(s): Indian Canyon, Wells Draw, Whitmore Park

Site Description

Site 42UT1084 is a newly recorded segment of the previously recorded historic "Colton to Duchesne Telephone Line, Colton to Price" on private property near the confluence of the Price River and Kyune Creek. The depositional context is alluvial. While there is a potential for subsurface cultural deposits based on deposition, utility lines are surface manifestations by nature. The site has been disturbed by the installation of fiber-optic cable, a railway, and modern transmission lines, and its overall condition is deteriorating.

The site was originally recorded in 1999 by Montgomery Archaeological Consultants (Montgomery and Montgomery 1999) as a dismantled historic telephone line that was visible on the 1917 GLO plat for Section 34, Township 11 South, Range 9 East. This portion of the line was in good condition, with upright poles but few intact cross members or wires.

A few poles had insulators still present on the cross beams, and fragments of a Hemingray No. 16 insulator were identified along with several modern insulators.

In 2019, SWCA recorded a new segment of the telephone line northwest of the previously recorded segment. The new segment consists of a standing, intact utility line that measures 609 feet long and an associated surface artifact scatter of glass insulators and metal fragments. The utility line parallels the northeastern side of the Denver and Rio Grande Western railroad tracks in the Price River canyon, just northwest of Kyune, with one side spur that extends northeast into a side canyon. The poles are standard wood utility poles with two crossbars and 10 insulator pegs on each crossbar. Eight lines are still strung along the poles and many glass insulators are still in place. Associated surface artifacts consist of seven glass insulators (including H-01 through H-04) and nondiagnostic metal fragments. A total of 500 metal and glass artifacts is estimated along the recorded segment, but some of the metal fragments may be associated with the railroad rather than the utility line. H-01 is a CD 145 aqua glass insulator fragment marked "W. Brookfield / 45 Cliff St / NY" (1882–1890) (McDougald and McDougald 1990:26); H-02 is a complete CD 214 olive green glass insulator on a metal peg (1921–1950s) (Willis 2019c); H-03 is a nearly complete CD 145 aqua glass insulator marked "B" (ca. 1903–1921) (McDougald and McDougald 1990:26); and H-04 is a colorless glass insulator fragment likely made by Corning Glass Works (1920s) (McDougald and McDougald 1990:131). Based on the artifacts observed, the site dates to between the 1880s and the 1950s.

Historical Background Research

A search of BLM GLO records online shows a "telegraph" line in Section 30 on the 1883 GLO plat for Township 11 South, Range 9 East paralleling the "D&RG RR" (Ferron 1883). A building labeled "Arthur L. Towles" is also present in a side canyon to the east of the line, in the direction of the side spur. A search of BLM GLO patents indicates that several patents, including homestead, mineral, cash sales, and Utah Enabling Act patents, were issued for portions of Section 30 between 1890 and 1927. The utility line is not visible on any of the available historic USGS quadrangles, but based on the 1917 GLO plat that shows the previously recorded line segment (Montgomery and Montgomery 1999), the telegraph line appears to have been converted to a telephone line prior to it being dismantled. Colton began as a railroad station in the 1880s and primarily housed coal miners from the nearby mines; it was abandoned in the 1950s (Holzapfel 1999:134).

NRHP Eligibility Recommendation

Site 42UT1084 is a newly documented segment of a historic linear site and associated artifact scatter that was built before 1883 and was in use possibly into the 1950s. The site was previously recommended not eligible for the NRHP under any criterion, with SHPO concurrence.

Telegraph lines fall into the communication area of significance for the NRHP (National Park Service 1997a:40–41). The telephone line is visible on the 1883 and 1917 GLO plats, but it does not appear to be associated with a specific event or pattern of events important to local, state, or national history and therefore does not meet the criteria of significance for the NRHP under Criterion A. Historical background research for 42UT1084 did not identify any persons significant in our past in a local, state, or national context, and the site has no elements that could be important for their physical design or construction. Therefore, 42UT1084 does not meet the criteria of significance for the NRHP under Criteria B and C.

Historic utility lines in the Uinta Basin and surrounding areas can potentially provide data to address research questions pertaining to Euro-American settlement and economic development of the region; however, utility lines are surface manifestations by nature, and it is unlikely that there are subsurface deposits that could provide information about the site's history. In addition, further archival research is unlikely to yield additional information about the history of the site. For these reasons, the site does not meet the criteria of significance for the NRHP under Criterion D.

The site retains integrity of location, as it appears to still follow its original alignment. It does not retain integrity of workmanship, materials, or design, as the construction and creation of utility lines is general and nonspecific, and integrity of setting and feeling are impacted by the construction of a fiber-optic cable and modern transmission lines.

In summary, SWCA recommends that 42UT1084 remains not eligible for the NRHP under any criterion.

42UT1370

Site Type: Transportation/Communication
Date: 1881–present
NRHP Eligibility: Eligible, Criterion A (non-contributing segments)
Documentation Status: Update
Proposed Route(s): Indian Canyon, Wells Draw, Whitmore Park

Site Description

Site 42UT1370 is two newly recorded segments of the previously recorded historic Denver and Rio Grande Western Railroad. The newly recorded segments are southwest of Emma Park along US 6, in Utah Valley along the Price River, and they cross private property and SITLA land. The western segment measures 4,200 feet long and the eastern segment measures 2,500 feet long. The on-site depositional context is imported gravels that were used to construct the railroad grade. Overall, these segments are in good condition. Due to the nature of the site and construction disturbance, there is little potential for intact subsurface cultural deposits.

A 1-mile segment of the railroad was originally recorded in 2002 by Sagebrush Consultants, LLC (Sagebrush) for the North University Greenway project in Provo, Utah, approximately 50 miles northwest of the new segments (Southworth 2002). The site was documented as a historic railroad grade that was in poor condition because it had been converted into a paved bike path by Utah County, and the grade to the south of that project area had been destroyed by residential and commercial construction.

Sagebrush noted in its site record (Southworth 2002) that another segment of the Denver and Rio Grande Western Railroad had previously been recorded in Provo Canyon under 42WA112. No features or artifacts were observed, but that railroad segment continued to be used and maintained. The transmission line associated with the railroad was out of commission, and some of the wires and insulator caps were on the ground surface.

The same 1-mile segment of 42UT1370 in Provo was updated in 2013 by Bighorn Archaeological Consultants as part of the PRO Edgemont Proposed Cell Tower project (Baxter 2013). No map was included with the update, and while the bike path was still present outside of that project area, the site was noted to have been completely destroyed within it.

In 2019, SWCA recorded two new segments of 42UT1370 in Utah County approximately 0.5 mile northwest of Kyune. The newly recorded segments are part of a line that continued west to Colorado and was completed in 1883 (Taniguchi 1994). Both of these railroad segments have two lines that are currently in use, and two culvert features were recorded in association with the eastern segment. The two culverts, F-01 and F-02, are constructed with board poured concrete footings, riveted steel I-beams for the span, and wood railroad ties for the deck.

F-01 is located east of F-02. F-01 also has a stencil on its south side that reads “Painted 9/6/54.” A third feature, F-03, is a railroad siding and its associated transmission line that runs parallel to the main railroad tracks. Various unidentifiable metal fragments were also observed in association with the recorded segments.

Historical Background Research

The Denver and Rio Grande Western Railroad was constructed in Utah between 1881 and 1883. The railroad was a key route through the Rocky Mountains, and it linked the silver mines in western Colorado to Santa Fe, New Mexico, in the south and with coal and other mines in Utah to the north, linking with the Central Pacific Railroad in Salt Lake City and Ogden. The railroad’s management continually stressed growth over stability, resulting in economic difficulties, and it was frequently in competition with other railroads, including the Union Pacific. In order to improve efficiency, several spur routes were abandoned beginning in the 1950s (Burns 2020; Taniguchi 1994). The previously recorded segment was one of these; it was dismantled in 1969 and turned into a paved bike path in 1981 (Southworth 2002). However, the newly documented segments are still active and remain in good condition.

NRHP Eligibility Recommendation

Site 42UT1370 is the historic Denver and Rio Grande Western Railroad, portions of which have been in use from 1881 to the present day. The previously recorded segment was determined not eligible for the NRHP under any criterion, with SHPO concurrence (Baxter 2013; Southworth 2002).

The Denver and Rio Grande Western Railroad falls under the transportation/communication, commerce, and industry areas of significance (National Park Service 1997a:41–42). The newly recorded segments have been in use since 1883.The Denver and Rio Grande Western Railroad contributed to a pattern of events that made a significant contribution to national transportation and commerce, as well as development in Utah and the Mountain West region, because it impacted the development of multiple towns and mining and other industries in both Utah and Colorado (National Park Service 1997b:12). The site therefore meets the criteria of significance for the NRHP under Criterion A. The site is not linked to any specific individual or their craftmanship within the historic context and therefore does not meet the criteria of significance for the NRHP under Criterion B. The railroad and its associated features were converted from narrow-gauge to standard-gauge rails in the 1890s; they demonstrate standard railroad construction techniques and do not embody the work of a master or have high artistic value. Therefore,

the site does not meet the criteria of significance for the NRHP under Criterion C. The railroad is primarily a surface manifestation with little potential for buried cultural deposits, and additional archival research is unlikely to result in important data; therefore, 42UT1370 does not meet the criteria of significance for the NRHP under Criterion D.

The destroyed segment of 42UT1370 was previously recommended not eligible for the NRHP under any criterion, with SHPO concurrence (Baxter 2013; Southworth 2002). But SWCA disagrees and recommends the overall Denver and Rio Grande Western Railroad eligible for the NRHP under Criterion A. The site maintains integrity of location, as the railroad grade has remained in its original location and the transportation that the site facilitated is ongoing. The newly recorded segments have been upgraded and modified through constant use and therefore lack integrity of materials and workmanship; however, they retain integrity of design. Due to the changes and development within the canyon over the last 100 years, the newly recorded segments lack integrity of setting, feeling, and association. As a result, these segments lack the integrity to convey the site's significance.

In summary, SWCA recommends 42UT1370 eligible to the NRHP and recommends the segments recorded here as non-contributing elements to the site's overall NRHP eligibility.

42UT2149

Site Type: Agricultural/Subsistence
Date: 1906–present
NRHP Eligibility: Not eligible
Documentation Status: Update
Proposed Route(s): Indian Canyon, Wells Draw, Whitmore Park

Site Description

Site 42UT2149 is a newly recorded historic artifact scatter on private property on the slope of a small bench in Emma Park north of the Price River. The on-site depositional context is alluvial and colluvial. The site is impacted by ongoing erosion as artifacts are eroding downslope and into ephemeral drainages, suggesting that any buried cultural materials would be in a secondary context. The mainline of the Denver and Rio Grande Western Railroad is approximately 100 m to the south but is not a direct impact. No other impacts to the site were observed.

The site consists of a small, diffuse artifact scatter containing two hole-in-top cans, glass shards, one ceramic sherd, a metal bucket, and various metal fragments. The glass assemblage consists of amethyst, aqua, colorless, amber, and green shards as well as one aqua bottle base (H-01) with an American Bottle Company maker's mark, with a date range from 1906 to 1909 (Lockhart et al. 2015c). The ceramic assemblage consists of a neck fragment of a white ceramic bottle. No features or artifact concentrations were observed. The artifact assemblage suggests that 42UT2149 is a domestic and/or agricultural artifact scatter dating to the early 1900s.

Historical Background Research

A search of BLM GLO records online indicates a patent was issued (a mineral patent placer) in 1866 to James Hamill and Adly B. Laurence for the SW ¼ of the SE ¼ of the NE ¼ of Section 30, Township 11 South, Range 9 East in the vicinity of the site (GLO 1866). A second patent was issued in 1911 to Anton Bargahr for the NE ¼ of the SE ¼ of Section 30, Township 11 South, Range 9 East, also in the area where the site is located (GLO 1911b). No additional information was found for this area.

NRHP Eligibility Recommendation

Site 42UT2149 is a small scatter of historic glass and metal that, based on diagnostic artifacts, dates to between 1906 and 1909. Historic artifact scatters fall into a host of types, including domestic, recreation and culture, agriculture/subsistence, and possibly industrial; however, the site lacks a direct connection to any of these areas and the historical background research did not identify any persons significant in our past in a local, state, or national context. Additionally, the site consists of an artifact scatter with no features or elements that could be important for their physical design or construction. Therefore, 42UT2149 does not meet the criteria of significance for the NRHP under Criteria A, B, and C.

The site is a sparse, nondescript historic artifact scatter, a common site type in the Uinta Basin. Because it is on a slope with artifacts eroding into ephemeral drainages, it has been adversely impacted by post-depositional processes. The site has been thoroughly documented, and it is unlikely to provide any additional data beyond that observed in survey recordation. Archival data is unlikely to produce important information about this site or answer any important research questions. Therefore, 42UT2149 does not meet the criteria of significance for the NRHP under Criterion D.

Due to ongoing impacts from alluvial and colluvial erosion and modern changes to the landscape surrounding the site, 42UT2149 does not retain any aspect of integrity. In summary, SWCA recommends 42UT2149 not eligible for the NRHP under any criterion.

7 MANAGEMENT SUMMARY

7.1 Summary and Recommendations

This summary characterizes each project alternative in terms of its potential effects to historic properties. The data from both the file search (see Appendix B) and the field survey were used in this analysis (Table 10). But in the absence of cultural resources data for the entirety of each route, these data were also used to estimate the relative archaeological sensitivity of the various ecoregions traversed by the proposed routes to more accurately compare their relative potential effects. By emphasizing the overall effect of each proposed route, this approach also helps to contextualize those sites that are potentially affected by more than one proposed route.

The result of this reconnaissance-level survey was a representative sample of archaeological resources per environmental zone, allowing for a valid comparison of the likely presence of archaeological resources among all proposed routes. SWCA's methods outlined prior to the survey intended for roughly 15 percent of each environmental zone to be covered (both by previously surveyed areas and areas surveyed during the current reconnaissance-level survey). These expectations were met, as 18 percent of the Indian Canyon Proposed Route, 13 percent of the Whitmore Park Proposed Route, and 14.5 percent of the Wells Draw Proposed Route were covered, for an average of 15 percent.

The purpose of this report is to establish the likely presence of cultural resources within each proposed route (Table 11). A preliminary finding of effects will be prepared to analyze effects based on the information presented in this report. In addition, an agreement document will be prepared at a later date to memorialize the process for implementing and completing the field survey and final findings of effect and resolving any adverse effects.

The previously recorded sites revisited during the 2019 intensive-level survey (see Table 10) fall into one of the randomly selected survey blocks. All previously recorded sites that were inside the survey blocks were re-located and either updated or re-recorded.

Table 10. Previously Recorded and Newly Recorded Sites Identified within Proposed Routes

Site Number	Site Class	Site Type	Eligibility	Indian Canyon	Wells Draw	Whitmore Park
42CB1415	Historic	Railroad	Eligible	Yes	No	Yes
42CB1872	Prehistoric	Feature	Eligible	Yes	No	Yes
42CB1874	Multicomponent	Artifact scatter	Eligible	Yes	No	Yes
42CB1875	Multicomponent	Artifact scatter	Eligible	Yes	No	Yes
42CB1876	Historic	Homesite	Eligible	Yes	No	Yes
42CB1877	Prehistoric	Lithic scatter	Eligible	Yes	No	Yes
42CB1878	Prehistoric	Feature	Eligible	Yes	No	Yes
42DC32	Prehistoric	Pictographs and lithic scatter	Eligible	No	Yes	No
42DC348	Historic	Government	Eligible	Yes	Yes	No
42DC354	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42DC374	Historic	Canal	Eligible	Yes	Yes	Yes
42DC534	Prehistoric	Feature	Eligible	No	No	Yes
42DC1120	Prehistoric	Lithic scatter	Eligible	No	No	Yes
42DC1381	Historic	Canal	Eligible	No	No	Yes
42DC1498	Historic	Stock driveway	Eligible	No	No	Yes
42DC1724	Historic	Canal	Eligible	Yes	Yes	Yes
42DC2144	Historic	Feature	Eligible	No	No	Yes
42DC2233	Multicomponent	Rockshelter	Eligible	No	No	Yes
42DC2391	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42DC2392	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42DC2419	Prehistoric	Rock art	Eligible	Yes	Yes	No
42DC2423	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42DC2442	Prehistoric	Temporary camp	Eligible	Yes	Yes	Yes
42DC2864	Historic	Transportation	Eligible	No	No	Yes
42DC3336	Historic	Feature	Eligible	Yes	Yes	No
42DC3802	Historic	Transportation/Communication	Eligible	Yes	Yes	No
42DC4128	Prehistoric	Specialty site	Eligible	No	No	Yes
42UN2787	Historic	Agriculture/subsistence	Eligible	No	No	Yes
42UN5061[†]	Historic	Canal	Eligible	No	No	No
42UN5954	Prehistoric	Temporary camp	Eligible	Yes	Yes	Yes
42UN5955	Prehistoric	Temporary camp	Eligible	No	No	Yes
42UN5956	Prehistoric	Temporary camp	Eligible	Yes	Yes	No
42UN5959	Prehistoric	Rock art	Eligible	Yes	Yes	No
42UN5961	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42UN5972	Prehistoric	Temporary camp	Eligible	Yes	Yes	No
42UN6059	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6063	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6067	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6076	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6077	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6079	Prehistoric	Camp	Eligible	Yes	Yes	No

Site Number	Site Class	Site Type	Eligibility	Indian Canyon	Wells Draw	Whitmore Park
42UN6081	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6087	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6089	Prehistoric	Camp	Eligible	Yes	Yes	No
42UN6090	Prehistoric	Rock art	Eligible	Yes	Yes	No
42UN6094	Prehistoric	Rock art	Eligible	Yes	Yes	No
42UN6100	Prehistoric	Lithic scatter	Eligible	Yes	Yes	No
42UN6102	Prehistoric	Rockshelter	Eligible	Yes	Yes	No
42UN7933†	Historic	Irrigation	Eligible	No	No	No
42UN7968	Prehistoric	Lithic scatter	Eligible	No	No	Yes
42UN7969	Prehistoric	Rock art	Eligible	No	No	Yes
42UN8921†	Prehistoric	Trade	Eligible	No	No	No
42UN8923	Historic	Domestic	Eligible	No	No	Yes
42UN8924†	Historic	Domestic	Eligible	No	No	No
42UT1082	Prehistoric	Lithic scatter	Eligible	Yes	Yes	Yes
42UT1086	Historic	Railroad	Eligible	Yes	No	Yes
42UT1124	Historic	Road	Eligible	Yes	Yes	Yes
42UT1126	Historic	Wood pipeline	Eligible	Yes	Yes	Yes
42UT1370	Historic	Transportation/Communication	Eligible (non-contr buting)	Yes	Yes	Yes
42UT1591	Historic	Wood pipeline	Eligible	Yes	Yes	Yes
42UT1592	Historic	Pipeline	Eligible	Yes	Yes	Yes
42CB786	Multicomponent	Task specific	Not eligible	Yes	No	Yes
42CB1871**	Historic	Transportation/Communication	Not eligible	Yes	No	Yes
42CB1873	Historic	Corral	Not eligible	Yes	No	Yes
42CB1898	Historic	Transportation/Communication	Not eligible	Yes	No	Yes
42CB3493†	Historic	Artifact scatter	Not eligible	No	No	No
42DC307	Prehistoric	Lithic scatter	Not eligible	No	No	Yes
42DC328	Historic	Transportation/Communication	Not eligible	Yes	Yes	No
42DC427	Historic	Trash scatter	Not eligible	Yes	Yes	No
42DC531	Prehistoric	Lithic scatter	Not eligible	No	No	Yes
42DC789	Prehistoric	Lithic scatter	Not eligible	No	No	Yes
42DC790	Historic	Trash scatter	Not eligible	No	No	Yes
42DC791	Historic	Trash scatter	Not eligible	No	No	Yes
42DC1142	Historic	Sheep camp	Not eligible	No	No	Yes
42DC1202	Historic	Transportation	Not eligible	No	No	Yes
42DC1499	Historic	Mining	Not eligible	No	No	Yes
42DC1501	Historic	Trash scatter	Not eligible	No	No	Yes
42DC1541	Historic	Trash scatter	Not eligible	No	No	Yes
42DC1975	Historic	Trash scatter	Not eligible	No	No	Yes
42DC2136	Prehistoric	Lithic scatter	Not eligible	No	No	Yes
42DC2143	Prehistoric	Lithic scatter	Not eligible	No	No	Yes
42DC2195	Historic	Campsite	Not eligible	No	No	Yes

Site Number	Site Class	Site Type	Eligibility	Indian Canyon	Wells Draw	Whitmore Park
42DC2393	Historic	Trash scatter	Not eligible	Yes	Yes	No
42DC2443	Prehistoric	Artifact scatter	Not eligible	No	No	Yes
42DC2881	Historic	Transportation	Not eligible	No	No	Yes
42DC3003	Historic	Irrigation	Not eligible	Yes	Yes	No
42DC3205	Historic	Trash scatter	Not eligible	No	No	Yes
42DC3543	Historic	Ranch	Not eligible	Yes	Yes	No
42DC4008	Historic	Trash scatter	Not eligible	Yes	No	Yes
42DC4129*	Prehistoric	Lithic scatter	Not eligible	No	No	No
42DC4130	Prehistoric	Task specific	Not eligible	No	No	Yes
42DC4131	Historic	Other	Not eligible	Yes	Yes	No
42DC4132	Historic	Domestic	Not eligible	Yes	Yes	No
42DC4133	Historic	Other	Not eligible	No	No	Yes
42DC4134	Historic	Domestic	Not eligible	No	No	Yes
42DC4135	Historic	Domestic	Not eligible	No	No	Yes
42DC4136	Historic	Transportation/Communication	Not eligible	Yes	Yes	No
42DC4137	Historic	Other	Not eligible	No	No	Yes
42DC4138	Historic	Transportation/Communication	Not eligible	Yes	No	No
42UN5986	Prehistoric	Lithic scatter	Not eligible	Yes	Yes	No
42UN6009	Prehistoric	Quarry	Not eligible	Yes	Yes	No
42UN6024	Prehistoric	Lithic scatter	Not eligible	Yes	Yes	No
42UN6035	Prehistoric	Quarry	Not eligible	Yes	Yes	No
42UN6051	Prehistoric	Camp	Not eligible	Yes	Yes	No
42UN6053	Prehistoric	Camp	Not eligible	Yes	Yes	No
42UN6069	Prehistoric	Lithic scatter	Not eligible	Yes	Yes	No
42UN6071	Prehistoric	Camp	Not eligible	Yes	Yes	No
42UN6073	Prehistoric	Camp	Not eligible	Yes	Yes	No
42UN6078	Prehistoric	Camp	Not eligible	Yes	Yes	No
42UN6084	Prehistoric	Rockshelter	Not eligible	Yes	Yes	No
42UN6093	Prehistoric	Temporary camp	Not eligible	Yes	Yes	No
42UN8919†	Prehistoric	Lithic scatter	Not eligible	No	No	No
42UT1084	Historic	Transportation/Communication	Not eligible	Yes	Yes	Yes
42UT1085	Historic	Transportation/Communication	Not eligible	Yes	Yes	Yes
42UT1087	Prehistoric	Lithic scatter	Not eligible	Yes	No	Yes
42UT1352	Historic	Quarry	Not eligible	Yes	Yes	Yes
42UT1593	Historic	Telephone line	Not eligible	Yes	No	Yes
42UT2149	Historic	Domestic	Not eligible	Yes	Yes	Yes
42DC343	Historic	Cabin	Unevaluated	Yes	Yes	No
42DC368	Historic	Cabin	Unevaluated	Yes	Yes	No
42DC2092	Historic	Irrigation	Unevaluated	Yes	Yes	No
42UN344†	Prehistoric	Lithic scatter	Unevaluated	No	No	No
42UT1083	Prehistoric	Lithic scatter	Unevaluated	Yes	Yes	Yes
42DC3	Prehistoric	Petroglyph	Unknown	Yes	Yes	No

Site Number	Site Class	Site Type	Eligibility	Indian Canyon	Wells Draw	Whitmore Park
42DC4	Prehistoric	Petroglyph	Unknown	Yes	Yes	No

*Sites 42UN2787 and 42DC1381 are the same site spanning two counties.

**Sites 42CB1871 and 42UT1085 are the same site spanning two counties.

† Outside all routes (as of February 2020, the site was within an initial proposed route prior to a change).

Table 11. Number of Recorded Properties by Proposed Route (file search and field survey, based on the February 12, 2020, shapefiles)

Proposed Route	Number of Recorded Sites	Number of Sites Recommended for the National Register of Historic Places (NRHP)	Number of Sites Recommended Not Eligible for the NRHP	Number of Sites Subject to Phased Identification and Evaluation (36 Code of Federal Regulations 800.4(b)(2)
Indian Canyon	81	43	32	6
Whitmore Park	66	35	25	6
Wells Draw	65	32	32	1

7.1.1 *Indian Canyon Proposed Route*

The Indian Canyon Proposed Route consists of 9,809.24 acres, 821 acres of which were surveyed, representing 8.37 percent of the total proposed route (see Section 1 for the definition of this area). A total of 81 sites are located within this proposed route, including 10 previously recorded sites and eight new sites located within the survey area that were documented during the current survey. Forty-four sites date to the Prehistoric period, 34 sites date to the Historic period, and three multicomponent sites are present. Of the 81 sites, a total of 43 sites are eligible for the NRHP and 32 sites are not eligible for the NRHP; six sites located outside the survey area are unevaluated or their NRHP eligibility is unknown. Historic site types include linear sites (roads, railroads, pipelines, and irrigation features), domestic sites (a corral, cabins, a ranch), and artifact scatters. Prehistoric site types include lithic scatters, temporary camps, rockshelters, and rock art. The three multicomponent sites consist of two artifact scatters and a task specific site.

As for ecoregions, most sites within this proposed route are located on the Uinta Basin Floor (n = 45). Twenty sites are located either entirely within the Mountain Valleys ecoregion (n = 18) or within both the Mountain Valleys and the Wasatch Montane Zone (n = 3). One site is split between the Escarpments and the Wasatch Montane ecoregion, and one site is split between the Escarpments and the Semiarid Benchlands and Canyonlands ecoregion. The remaining 13 sites are divided among the Escarpments (n = 5), the Wasatch Montane Zone (n = 5), and the Semiarid Benchlands and Canyonlands (n = 3) ecoregions. Please see Appendix B for a complete list.

On the whole, the majority of sites along this proposed route are located in the Uinta Basin Floor ecoregion. Both prehistoric and historic sites are present, and there are more NRHP-eligible sites than not. Thirty percent of the Indian Canyon Proposed Route (2,943 acres) crosses the Uinta Basin Floor ecoregion. Since archaeological sites are most common in this ecoregion, the overall effect to cultural resources by selection of this proposed route is high.

7.1.2 *Whitmore Park Proposed Route*

The Whitmore Park Proposed Route includes 10,609.47 acres, 763 acres of which were surveyed, which represents 7.19 percent of the total area. Sixty-six sites are located within this proposed route (see Section 1 for the definition of this area), including seven previously recorded sites and four new sites located within the survey area that were documented during the current survey. Of the 66 sites within this proposed route, 35 are eligible for the NRHP, 25 are not eligible for the NRHP, and six sites located outside the survey area have an unknown or unevaluated NRHP status. Twenty-five sites date to the Historic period and 41 sites date to the Prehistoric period. Historic site types include those related to transportation and communication, a USFS guard station, domestic artifact scatters, a quarry, irrigation features and a pipeline, and homesteading activities. Prehistoric site types include campsites, lithic scatters, rockshelters, a quarry, and rock art sites.

A total of 45 sites are located in the Uinta Basin Floor ecoregion. Six sites are located in the Mountain Valleys ecoregion; three sites are located in the Wasatch Montane Zone; and three are split between the Mountain Valleys and the Wasatch Montane Zone ecoregions. Five sites are located in the Escarpments ecoregion; one is split between the Escarpments and the Wasatch Montane ecoregions; and one is split between the Escarpments and the Semiarid Benchlands and Canyonlands ecoregions. Two sites are located in the Semiarid Benchlands and Canyonlands ecoregion. Please see Appendix B for a complete list.

In conclusion, sites along the Whitmore Park Proposed Route are a mix of both historic and prehistoric sites and NRHP eligibility is relatively evenly divided. Lastly, 68 percent of the sites are located in the Uinta Basin Floor ecoregion and 9 percent are located in the Mountain Valleys ecoregion. Twenty-eight percent (2,947acres) of the Whitmore Park Proposed Route crosses the Uinta Basin Floor ecoregion. Twenty-three percent (2,448 acres) cross the Mountain Valleys ecoregion. Taking the combined potential effect to resources in both ecoregions, the overall effect to cultural resources by selection of this proposed route is higher relative to the other alternatives.

7.1.3 *Wells Draw Proposed Route*

The Wells Draw Proposed Route includes 13,191.97 acres, 1,394 acres of which were surveyed, which represents 10.57 percent of the total area. A total of 65 total sites are located within this proposed route, (see Section 1 for the definition of this area), including seven previously recorded sites and eight new sites located within the survey area that were documented during the current survey. Of the 65 sites within this proposed route, 32 sites are eligible for the NRHP, 32 sites are not eligible for the NRHP, and one site outside the surveyed area is unevaluated. Twenty-one sites date to the Prehistoric period, 40 sites date to the Historic period, and four multicomponent sites are present. Historic site types include linear sites (roads, railroads, pipelines, and irrigation features), domestic sites (a corral, cabins, and ranches), and artifact scatters. Prehistoric site types include lithic and artifact scatters, hearth features, an isolated rock structure, and rock art.

As for ecoregions, sites within this proposed route are located in the Uinta Basin Floor ecoregion (n = 28), the Mountain Valleys ecoregion (n = 18), the Semiarid Benchlands and Canyonlands ecoregion (n = 8), the Wasatch Montane Zone ecoregion (n = 5), and the Escarpments ecoregion (n = 2). Three sites are split between the Mountain Valleys and the Wasatch Montane Zone ecoregions and one site is split between the Semiarid Benchlands and Canyonlands and the Uinta Basin Floor ecoregions. Please see Appendix B for a complete list.

In summary, sites along the Wells Draw Proposed Route date primarily to the Historic period. They are nearly evenly split regarding NRHP eligibility. Twenty-nine percent of the Wells Draw Proposed Route

(3,854 acres) crosses the Uinta Basin Floor ecoregion. As with the Indian Canyon Proposed Route, archaeological sites are most common in this ecoregion (n = 28). The overall effect to cultural resources by selection of this proposed route is lower relative to the Indian Canyon and Whitmore Park Proposed Routes.

8 REFERENCES CITED

Adkison, Vicki
2002 *What is That Thing?: A Compact Field Guide to Historic Artifacts in the Modoc National Forest*. Heritage Resource Management, Modoc National Forest, California.

Aikens, C. Melvin, and David B. Madsen
1986 Prehistory of the Eastern Area. In *Great Basin*, edited by W. L. d'Azevedo, pp. 149–160. Handbook of North American Indians Vol.11, W. C. Sturtevant, general editor. Smithsonian Institution Press, Washington, D.C.

Alexander, Thomas G.
1996 *Utah, the Right Place: The Official Centennial History*. Gibbs-Smith Publisher, Salt Lake City, Utah.

Ambler, Richard
1966 *Caldwell Village*. University of Utah Anthropological Papers No. 84. Salt Lake City.

Anderson, Edward H.
1904 General Land Office (GLO) Plat Map for Township 4 South, Range 4 West of the Uintah Meridian, Utah. Surveyor Generals Office, Salt Lake City, Utah.

Antevs, Ernst
1948 Climatic Changes and Pre-White Man. The Great Basin with Emphasis on Post-Glacial Times. *Bulletin of the University of Utah* 38(20):167–191.

Antrei, Albert C. T., and Allan D. Roberts
1999 *A History of Sanpete County*. Utah State Historical Society, Salt Lake City.

Barton, John D.
1998 *A History of Duchesne County*. Utah State Historical Society, Salt Lake City.

Baxter, J.
2013 IMACS Site Form for 42UT1370. Division of State History, Utah State Historic Preservation Office, Salt Lake City.

Beck, Charlotte, and George T. Jones
1997 The Terminal Pleistocene/Early Holocene Archaeology of the Great Basin. *Journal of World Prehistory* 11:161–236.

2001 Were There People in the Great Basin before 12,000 Years Ago? In *On Being First: Cultural Innovations and Environmental Consequences of First Peopling*, edited by J. Gillespie, S. Tapakka, and C. de Mille, pp. 453–469. Archaeological Association of the University of Calgary, Alberta.

Bender, Henry, Jr.
1970 *Uintah Railway: The Gilsonite Route*. Heimburger House, Forest Park, Illinois.

Bennett, James
2019 Alfred D. McKelvy (Seaforth). Cosmetics and Skin. Available at: https://cosmeticsandskin.com/companies/seaforth.php. Accessed November 5, 2019.

Benson, Michael P.
1982 The Sitterud Bundle: A Prehistoric Cache from Central Utah. In *Archaeological Investigations in Utah at Fish Springs, Clay Basin, San Rafael Swell, and Southern Henry Mountains*, edited by R. E. Fike and D. B. Madsen. Bureau of Land Management (BLM), Utah State Office, Salt Lake City.

Bettinger, Robert L., and Martin A. Baumhoff
1982 The Numic Spread: Great Basin Cultures in Competition. *American Antiquity* 47(3):485–503.

Biggs, Robert W.
1970 Burnt House Village, 42Un118. In *Archaeological Investigations in Dinosaur National Monument, Colorado-Utah, 1964-1965*, edited by D. A. Breternitz, T. G. Birkedal, B. D. Hayden, D. F. Maronde, and D. L. Arndt, pp. 55–73. University of Colorado Press, Boulder.

Bishop, M. Guy
1997 *A History of Sevier County*. Utah State Historical Society, Salt Lake City.

Bringhurst, Newell G.
2012 Young, Brigham. Utah History Encyclopedia. Available at: http://www.uen.org/utah_history_encyclopedia/y/YOUNG_BRIGHAM.shtml. Accessed November 19, 2019.

Bureau of Land Management (BLM)
1964 Serial Patent: BLM Serial No. UTU 0083031. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=UTU%20%20%200083031&docClass=SER&sid=fyllywuw.oxg. Accessed July 16, 2019.

2002 *Guidelines for Identifying Cultural Resources: Handbook H-8110*. Available at: https://www.blm.gov/sites/blm.gov/files/documents/files/Utah_Cultural_Resources_Handbook.pdf. Accessed May 17, 2019.

2004 *8110: Identifying and Evaluating Cultural Resources*. Available at https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual8110_0.pdf. Accessed March 31, 2020.

Burns, Adam
2020 Denver and Rio Grande Western Railroad (Rio Grande). Available at: https://www.american-rails.com/drgw.html. Accessed April 2, 2020.

Burton, Doris Karren
1996 *A History of Uintah County: Scratching the Surface*. Utah State Historical Society, Salt Lake City.

Callaway, Donald G., Joel C. Janetski, and Omer C. Stewart
1986 Ute. In *Great Basin*, edited by W. L. d'Azevedo, pp. 336–367. Handbook of North American Indians, Vol. 11, W. C. Sturtevant, general editor. Smithsonian Institution Press, Washington, D.C.

Cannon, Mike
2019 *Uinta Basin Railway: Draft Cultural Resources Field Reconnaissance Methodology for Utah*. Technical memorandum. SWCA Environmental Consultants, Salt Lake City, Utah. June 24.

Clark, John
1957 *Guidebook to the Geology of the Uinta Basin: Eighth Annual Field Conference*. Intermountain Association of Petroleum Geologists. Utah Geological and Mineralogical Survey.

Cornia, Reed W.
1998 Land Conflict in the Uintah Basin: The Anglo and Native American Struggle for Control of the Uintah-Ouray Reservation's Natural Resources. M.S. thesis, Department of History, Utah State University, Logan.

Covington, Robert E.
1964 A Brief History of Early Mineral Exploration in the Uinta Basin. In *Guidebook to the Geology and Mineral Resources of the Uinta Basin: Utah's Hydrocarbon Storehouse. Thirteenth Annual Field Conference,* edited by E. F. Sabatka, pp. 1–16. Intermountain Association of Petroleum Geologists, Salt Lake City, Utah.

Day, Kent C.
1964 Thorne Cave, Northeastern Utah: Archaeology. *American Antiquity* 30(1):50–59.

Deseret News
1861 Uinta Not What Was Represented. *Deseret News* 25 September:11, 22. Salt Lake City, Utah.

Embry, Jessie L.
1996 *A History of Wasatch County*. Utah State Historical Society, Salt Lake City.

Fagan, Brian M.
1991 *Ancient North America: The Archaeology of a Continent*. Thames and Hudson, New York.

Ferron, Augustus D.
1883 GLO Plat Map for Township 11 South, Range 9 East of the Salt Lake Meridian. Surveyor General's Office, Salt Lake City, Utah.

1895 GLO Plat Map for Township 12 South, Range 10 East of the Salt Lake Meridian. Surveyor General's Office, Salt Lake City, Utah.

1915 GLO Plat Map for Township 12 South, Range 9 East of the Salt Lake Meridian. Surveyor General's Office, Salt Lake City, Utah.

Fire-King Mug
2019 FAQs for Fire-King Collectors. Available at: http://www.fire-king-mug.com/faqs-for-fire-king-collectors/. Accessed November 5, 2019.

Frison, George C.
1991 *Prehistoric Hunters of the High Plains*. 2nd ed. Academic Press, San Diego, California.

Gatenbee, Amy, and R. Kelly Beck
2017 *Prehistoric Temporary Campsites in the Uinta Basin*. Historic Context for the Vernal Field Office and Utah State Historic Preservation Office. Prepared for the BLM, Vernal Field Office, Vernal, Utah, and the Utah State Historic Preservation Office, Salt Lake City. SWCA Environmental Consultants, Salt Lake City, Utah.

General Land Office (GLO)

1866 Serial Patent: BLM Serial No. UTUTAA 018059. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=UTUTAA%20018059&docClass=SER&sid=ksqhv13p.hs2. Accessed July 3, 2019.

1894 Serial Patent: BLM Serial No. UTUTAA 000001. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=UTUTAA%20000001&docClass=SER&sid=fyllywuw.oxg. Accessed July 16, 2019.

1907 Serial Patent: BLM Serial No. UTUTAA 023582. Available at: https://glorecords.blm.gov/details/cdi/default.aspx?doc_id=2025874&sid=vlhbsvjh.tsw. Accessed November 8, 2019.

1909 Serial Patent: BLM Mineral Survey No. 5951. Available at: https://glorecords.blm.gov/details/cdi/default.aspx?doc_id=2025874&sid=vlhbsvjh.tsw. Accessed November 8, 2019.

1911a Serial Patent: BLM Serial No. UTV 0002555. Available at: https://glorecords.blm.gov/details/cdi/default.aspx?doc_id=2025875&sid=vlhbsvjh.tsw. Accessed November 8, 2019.

1911b Serial Patent: BLM Serial No. UTSL 0005319. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=170487&docClass=SER&sid=wysorqms.dvj#patentDetailsTabIndex=1. Accessed July 3, 2019.

1920 Serial Patent: BLM Serial No. UTV 0004965. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=773891&docClass=SER&sid=44uc1dct.g3m. Accessed November 8, 2019.

1929 Serial Patent: GLO Serial No. 1026868. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=1026868&docClass=SER&sid=32f5410j.zhs Accessed July 3, 2019.

1930 Serial Patent: GLO Serial No. UTSL 0036205. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=1036482&docClass=SER&sid=djtllubb.hq4#patentDetailsTabIndex=0. Accessed October 24, 2019.

1936 Serial Patent: GLO Serial No. UTSL 0047938. Available at https://glorecords.blm.gov/details/patent/default.aspx?accession=1086987&docClass=SER&sid=vr1hwiy5.j05 Accessed November 7, 2019.

1959 Serial Patent: BLM Serial No. 1193095. Available at: https://glorecords.blm.gov/results/default.aspx?searchCriteria=type=patent|st=UT|cty=|twp_nr=4|twp_dir=S|rng_nr=2|rng_dir=W|sec=17|m=30|sp=true|sw=true|sadv=false#resultsTabIndex=0. Accessed June 26, 2019.

1965a Serial Patent: BLM Serial No. UTU 0124633C. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=UTU%20%20%200124633C&docClass=SER&sid=cqrtgi3b.bfh. Accessed September 30, 2019.

1965b Serial Patent: BLM Serial No. UTU 0118421C. Available at: https://glorecords.blm.gov/details/patent/default.aspx?accession=UTU%20%20%200118421C&docClass=SER&sid=pgixees1.x2c. Accessed September 25, 2019.

Grady, James

1984 *Northwest Colorado Prehistoric Context*. Colorado Historical Society, Denver.

Grayson, Donald K.
1993 *The Desert's Past: A Natural Prehistory of the Great Basin*. Smithsonian Institution, Washington, D.C.

2000 Mammalian Responses to Middle Holocene Climatic Change in the Great Basin of the Western United States. *Journal of Biogeography* 27:181–192.

2011 *The Great Basin: A Natural Prehistory*. University of California Press, Berkeley.

2016 *Giant Sloths and Sabertooth Cats: Extinct Mammals and the Archaeology of the Ice Age Great Basin*. University of Utah Press, Salt Lake City.

Grayson, Donald K., and David J. Meltzer
2015 Revisiting Paleoindian Exploitation of Extinct North American Mammals. *Journal of Archaeological Science* 30:585–593.

Hampshire, David, Martha Sonntag Bradley, and Allen D. Roberts
1998 *A History of Summit County*. Utah State Historical Society, Salt Lake City.

Harja, John
2008 Supplement to Acknowledgment and Notice of Acknowledgment of Acceptance of R.S 2477 Right-of-Way Grant for Kyune Pass Road, State Geographic Information Database Road Identification Number RD250010. Utah County Recorder's Office.

Hayden, Garth, Kate Wright, Shane Montgomery, and Anthony Klesert
2012 *Cultural Resources Survey of Approximately 1,157 Acres for the Lower Duchesne River Wetland Mitigation Project, Duchesne County, Utah*. Ecosystems Management, Inc., Albuquerque, New Mexico.

Hilton, George W.
1990 *American Narrow Gauge Railroads*. Stanford University Press, Stanford, California.

Hittman, Michael
2013 *Great Basin Indians: An Encyclopedic History*. University of Nevada Press, Reno.

Holzapfel, Richard Metzel
1999 *A History of Utah County*. Utah State Historical Society and the Utah County Commission, Salt Lake City.

Hora-Cook, Elizabeth A.
2017 Resource Competition among the Uinta Basin Fremont. Master's thesis, Department of Anthropology, Utah State University, Logan.

Horn, Jonathon C., Alan D. Reed, and Susan M. Chandler
1994 Grand Resource Area Class I Cultural Resource Inventory. Manuscript on file, BLM, Moab, Utah.

Hovanes, Kate, and Megan Daniels
2020 *Selective Reconnaissance-Level Survey of Historic Architectural Resources Along Proposed Routes for the Uinta Basin Railway Project in Utah, Carbon, Duchesne, and Uintah Counties, Utah*. SWCA Environmental Consultants, Salt Lake City, Utah. Currently under review.

Isaacs, Trista, and K. Knox
2017 IMACS Site Form for 42DC328. U.S. Forest Service, Salt Lake City, Utah. Copies available from the Utah Division of State History, Salt Lake City.

Janetski, Joel C.
2008 The Enigmatic Fremont. In *The Great Basin: People and Place in Ancient Times*, edited by C. S. Fowler, pp. 105–115. School for Advanced Research Press, Santa Fe, New Mexico.

Jennings, Jesse D.
1978 *Prehistory of Utah and the Eastern Great Basin*. University of Utah Anthropological Papers No. 98. Salt Lake City.

Jennings, Jesse D., Alan R. Schroedl, and Richard N. Holmer
1980 *Sudden Shelter*. University of Utah Anthropological Papers No. 103. Salt Lake City.

Jensen, J. Cory
1998 National Register of Historic Places Registration Form: Indian Canyon Ranger Station. Available at: https://npgallery.nps.gov/NRHP/AssetDetail?assetID=22febe00-2a3c-41a2-be62-3dddb51ef950. Accessed July 18, 2019.

Jenson, H. B.
1993 *The Pioneer Saga of the Nine Mile Canyon Road*. The Ink Spot and Duchesne County Area Chamber of Commerce, Roosevelt, Utah.

Johnson, Clay, and Byron Loosle
2002 *Prehistoric Uinta Mountain Occupation*s. United States Department of Agriculture, Forest Service, Intermountain Region, Ashley National Forest Heritage Report No. 2-02/2002.

Kelly, Robert L.
1997 Late Holocene Great Basin Prehistory. *Journal of World Prehistory* 11:1–49.

Lamb, Sydney M.
1958 Linguistic Prehistory in the Great Basin. *International Journal of American Linguistics* 24(2):95–100.

Leach, Larry L.
1967 Archaeological Investigations at Deluge Shelter (42Un1). Manuscript on file, Midwest Archaeological Center, Lincoln, Nebraska.

1970 Archaeological Investigations at Deluge Shelter in Dinosaur National Monument. Ph.D. dissertation, Anthropology Department, University of Colorado, Boulder.

Lindsey, Bill
2018 Bottle/Glass Colors. Available at: http://sha.org/bottle/colors.htm. Accessed September 5, 2019.

Lockhart, Bill, and Russ Hoenig
2018 *The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes*. Available at: https://sha.org/bottle/pdffiles/OwensIllinois2018Part2.pdf. Accessed November 4, 2019.

Lockhart, Bill, and Bill Lindsey
2019 *Manufacturer's Marks and Other Logos on Glass Containers*. Available at: https://sha.org/bottle/pdffiles/OLogoTable.pdf. Accessed September 5, 2019.

Lockhart, Bill, Bill Lindsey, Carol Serr, Pete Schulz, and Beau Schriever
2015a *Manufacturer's Marks and Other Logos on Glass Containers: "H" Logo Table*. Available at: https://sha.org/bottle/pdffiles/ILogoTable.pdf. Accessed November 4, 2019.

2015b *Manufacturer's Marks and Other Logos on Glass Containers: "G" Logo Table*. Available at: http://sha.org/bottle/pdffiles/SymbolsLogoTable.pdf. Accessed September 17, 2019.

2015c *Manufacturer's Marks and Other Logos on Glass Containers: "A" Logo Table*. Available at: http://www.sha.org/bottle/pdffiles/ALogoTable.pdf. Accessed September 17, 2019.

2015d *Manufacturer's Marks and Other Logos on Glass Containers: "L" Logo Table*. Available at: https://sha.org/bottle/pdffiles/ILogoTable.pdf. Accessed November 4, 2019.

2015e *Manufacturer's Marks and Other Logos on Glass Containers: Symbols Logo Table*. Available at: http://sha.org/bottle/pdffiles/SymbolsLogoTable.pdf. Accessed September 17, 2019.

2015f *Manufacturer's Marks and Other Logos on Glass Containers: "N" Logo Table*. Available at: https://sha.org/bottle/pdffiles/ILogoTable.pdf. Accessed July 3, 2019.

Lockhart, Bill, Beau Schriever, Carol Serr, and Bill Lindsey
2013 *Ball Brothers Glass Mfg. Co*. Available at: https://sha.org/bottle/pdffiles/BallBros.pdf. Accessed November 4, 2019.

Loosle, Byron, Clay Johnson, L. Ingram, D. Pugh, and K. Wilson
2000 *Dutch John Excavations: Seasonal Occupations on the North Slope of the Uinta Mountains*. Heritage Report 1-01, U.S. Department of Agriculture, Forest Service, Intermountain Region-Ashley National Forest, Washington, D.C. Copies available from the Utah Division of State History, Salt Lake City.

Lyneis, Margaret
1994 *Kern River Pipeline Cultural Resources Data Recovery Report: Utah, Volume I, Research Context and Data Analysis*. Manuscript on file, Dames and Moore, Inc., Las Vegas, Nevada.

Madsen, David B.
1975 Three Fremont Sites in Emery County, Utah. *Antiquities Section Selected Papers* 1(1):1–28.

2007 The Paleoarchaic to Archaic Transition in the Great Basin. In *Paleoindian or Paleoarchaic? Great Basin Human Ecology at the Pleistocene/Holocene Transition*, edited by K. E. Graf and D. N. Schmitt. University of Utah Press, Salt Lake City.

Madsen, David B., and David Rhode (editors)
1994 *Across the West: Human Population Movement and the Expansion of the Numa*. University of Utah Press, Salt Lake City.

Madsen, David B., David Rhode, Donald K. Grayson, Jack M. Broughton, Stephanie D. Livingston, Jeffery M. Hunt, Jay Quade, Dave N. Schmitt, and Monson W. Shaver III
2001 Late Quaternary Environmental Change in the Bonneville Basin, Western USA. *Palaeogeography, Palaeoclimatology, Palaeoecology* 167:234–271.

Madsen, David B., Dave N. Schmitt, and David Page
2015 *The Paleoarchaic Occupation of the Old River Bed Delt*a. University of Utah Anthropological Papers No. 128. Salt Lake City.

Madsen, David B., Thomas R. Scott, and Byron Loosle
2000 Differential Transport Costs and High-Altitude Occupation Patterns in the Uinta Mountains, Northeastern Utah. *Intermountain Archaeology* 122:15–24.

Madsen, David B., and Steven R. Simms
1998 The Fremont Complex: A Behavioral Perspective. *Journal of World Prehistory* 12(3):255–336.

Marsell, Ray E.
1964 Geomorphology of the Uinta Basin: A Brief Sketch. In *Guidebook to the Geology and Mineral Resources of the Uinta Basin: Utah's Hydrocarbon Storehouse. Thirteenth Annual Field Conference*, edited by E. F. Sabatka, pp. 29–40. Intermountain Association of Petroleum Geologists, Salt Lake City, Utah.

Marwitt, John P.
1986 Fremont Cultures. In *Great Basin*, edited by W. L. d'Azevedo, pp. 592–600. Handbook of North American Indians Vol. 11, W. C. Sturtevant, general editor. Smithsonian Institution Press, Washington, D.C.

Massimino, Jacquelyn, and Duncan Metcalfe
1999 New Form for the Formative. *Utah Archaeology* 12: 1–16.

May, Dean L.
1987 *Utah: A People's History*. University of Utah Press, Salt Lake City.

McDonald, Kae, and Michael Metcalf (editors)
2000 *Archaeology of the Uinta Basin Lateral, Wyoming, Colorado, and Utah*. Report on file, Metcalf Archaeological Consultants, Eagle, Colorado.

McDougald, John, and Carol McDougald
1990 *Insulators: A History and Guide to North American Glass Pintype Insulators*, Vol. 1. National Insulator Association, Inc. Phoenix, Arizona.

Miller, Blaine
1991 IMACS Site Form for 42CB786. BLM. Copies available from the Utah Division of State History, Salt Lake City.

Miller, Howard M.
1924 GLO Plat Map for Township 12 South, Range 10 East of the Salt Lake Meridian. Surveyor General's Office, Salt Lake City, Utah.

Mlazovsky, Marilyn

1981a Cultural Resource Management Site Inventory Form for Site 42DC348. U.S. Forest Service, Ashley National Forest. Copies available from the Utah Division of State History, Salt Lake City.

1981b *A Cultural Resource Survey of the Indian Canyon Guard Station*. U.S. Forest Service, Ashley National Forest. Copies available from the Utah Division of State History, Salt Lake City.

Montgomery Archaeological Consultants

2003 Site Form Addendum for Site 42UT1084/42UN12345. Montgomery Archaeological Consultants, Moab, Utah. Copies available from the Utah Division of State History, Salt Lake City.

Montgomery, Keith, and Jacki Montgomery

1999 IMACS Site Form for 42UT1084. Montgomery Archaeological Consultants, Moab, Utah. Copies available from the Utah Division of State History, Salt Lake City.

Morss, Noel

1931 The Ancient Culture of the Fremont River in Utah: Report on the Explorations under the Claflin-Emerson Fund, 1928–29. *Papers of the Peabody Museum of American Archaeology and Ethnology* 12(3).

Nash, Robert Bruce

2012 The Role of Maize in Low-Level Food Production among Northern Peripheral Fremont Groups in the Northeastern Uinta Mountains of Utah. Ph.D. dissertation, University of California, Davis.

National Park Service

1997a *How to Complete the National Register Registration Form*. *National Register Bulletin* 16A. Originally published in 1977. National Park Service Interagency Resources Division, National Register Branch, Washington D.C.

1997b *How to Apply the National Register Criteria for Evaluation*. Rev. ed. *National Register Bulletin* 15. U.S. Department of the Interior, National Park Service, Washington, D.C.

New, Alexander

2013 IMACS Site Form for 42DC3543. Montgomery Archaeological Consultants, Moab, Utah. Copies available from the Utah Division of State History, Salt Lake City.

Nielson, A.

2017 IMACS Site Form for 42DC1381. Aros Archaeology, Inc. Copies available from the Utah Division of State History, Salt Lake City.

Office of Legislative Research and General Counsel

2012 *Utah's Population Growth: State, County, and City Changes 2000–2010*. Available at: http://le.utah.gov/lrgc/briefings/2012.Jan.CensusPopulationFinal.pdf. Accessed November 19, 2019.

Oliver, Anne, Kate Hovanes, and Stephanie Lechert

2017a *Irrigation in the Uinta Basin, 1869 to 1972*. National Register of Historic Places Multiple Property Documentation Form. SWCA Environmental Consultants, Salt Lake City, Utah. Copies available from the BLM, Vernal Field Office, Vernal, Utah.

2017b *Sheepherding and Sheep Camps in the Uinta Basin, 1879 to 1972*. National Register of Historic Places Multiple Property Documentation Form. SWCA Environmental Consultants, Salt Lake City, Utah. Copies available from the BLM, Vernal Field Office, Vernal, Utah.

Page, Sarah, and Matt Edwards

2014a IMACS Site Form for 42CB786. HDR, Inc., Salt Lake City, Utah. Copies available from the Utah Division of State History, Salt Lake City.

2014b IMACS Site Form for 42DC3802. HDR, Inc., Salt Lake City, Utah. Copies available from the Utah Division of State History, Salt Lake City.

Patterson, Jody J., Adam Thomas, Roger Stash, and John Fritz

2011 *Gasco Energy's Uinta Basin Natural Gas Development Project Class I Cultural Resource Literature Review*. Montgomery Archaeological Consultants, Inc., Moab, Utah. Manuscript on file, BLM, Vernal Field Office, Vernal, Utah.

Pitblado, Bonnie, Molly Boeka Cannon, Megan Bloxham, Joel C. Janetski, James M. Adovasio, Kathleen Anderson, and Stephen Nelson

2013 Archaeological Fingerprinting and Fremont Figurines: Reuniting the Iconic Pilling Collection. *Advances in Archaeological Practice* 1(1):3–12.

Poll, Richard D., Thomas G. Alexander, Eugene E. Campbell, and David E. Miller

1989 *Utah's History*. Utah State University Press, Logan.

Reed, Alan D.

1994 The Numic Occupation of Western Colorado and Eastern Utah During the Prehistoric and Protohistoric Periods. In *Across the West: Human Population Movement and the Expansion of the Numa*, edited by D. B. Madsen and D. Rhode, pp. 188–199. University of Utah Press, Salt Lake City.

Reed, Alan D., and Michael D. Metcalf

1999 *Colorado Prehistory: A Context for the Northern Colorado River Basin*. Colorado Council of Professional Archaeologists, Denver.

Reheis, M. C., R. L. Reynolds, H. Goldstein, H. M. Roberts, J. C. Yount, Y. Axford, L. Scott-Cummings, and N. Shearin

2005 Late Quaternary Eolian and Alluvial Response to Paleoclimate, Canyonlands, Southeastern Utah. *Geological Society of America Bulletin* 117:1051–1069.

Reilly, Michael

2017 Tin Company Histories. Available at https://kellerhistorymuseum.org/antiqibles/antique-advertising-tins/tin-company-histories/. Accessed November 7, 2019.

Rock, James T.

1984 Cans in the Countryside. *Historical Archaeology* 18(2):98–111.

1993 Can Chronology. Available at: https://digital.sou.edu/digital/collection/p16085coll5/id/1948/rec/6. Accessed September 13, 2019.

Sauder, Robert A.

1996 State v. Society: Public Land Law and Mormon Settlement in the Sevier Valley, Utah. *Agricultural History* 70(1):57–89.

Schmitt, Dave N., and Karen D. Lupo
2016 Changes in Late Quaternary Mammalian Biogeography in the Bonneville Basin. In *Lake Bonneville: A Scientific Update*, edited by C. G. Oviatt and J. F. Shroder, pp. 352–370. Developments in Earth Surface Processes Vol. 20. Elsevier, Amsterdam.

Schroedl, Alan R.
1991 Paleo-Indian Occupation in the Eastern Great Basin and Northern Colorado Plateau. *Utah Archaeology* 4(1):1–15.

Shields, W. F.
1967 *1966 Excavations: Uinta Basin, Miscellaneous Collected Papers 15*. University of Utah Anthropological Papers No. 89. Salt Lake City.

Sillitoe, Linda
1996 *A History of Salt Lake County*. Utah State Historical Society, Salt Lake City.

Simms, Steven R.
2008 *Ancient Peoples of the Great Basin and Colorado Plateau*. Left Coast Press, Inc., Walnut Creek, California.

Smaby, Beverly P.
1975 The Mormons and the Indians: Conflicting Ecological Systems in the Great Basin. *American Studies* 16(1):35–48.

Southworth, Don
2002 IMACS Site Form for 42UT1370. Utah Division of State History, Utah State Historic Preservation Office, Salt Lake City.

Spangler, Jerry D.
1995 *Paradigms and Perspectives: A Class I Overview of Cultural Resources in the Uinta Basin and Tavaputs Plateau* Vol. 2. 3 vols. Uinta Research, Salt Lake City, Utah.

2000a Radiocarbon Dates, Acquired Wisdom, and the Search for Temporal Order in the Uinta Basin. In *Intermountain Archaeology*, edited by D. B. Madsen and M. D. Metcalf, pp. 48–99. University of Utah Anthropological Papers No. 122. Salt Lake City.

2000b One-Pot Pithouses and Fremont Paradoxes: Formative Stage Adaptations in the Tavaputs Plateau Region of Northeastern Utah. *Intermountain Archaeology* (122):25–38.

2002 *Paradigms and Perspectives Revisited: A Class I Overview of Cultural Resources in the Uinta Basin and Tavaputs Plateau*. Uinta Research, Salt Lake City, Utah. Submitted to BLM, Vernal District, Vernal, Utah. Copies available from Uinta Research, Ogden, Utah.

Steward, Julian H.
1938 *Basin-Plateau Aboriginal Sociopolitical Groups*. Bureau of American Ethnology Bulletin 120. Smithsonian Institution, Washington D.C.

Stewart, A. J.
1904 GLO Plat Map for Township No. South, Range 5 West of the Uintah Special Base Meridian. Surveyor General's Office, Salt Lake City, Utah.

Stewart, Omer C.
1942 Culture Element Distributions XVIII: Ute-Southern Paiute. *University of California Anthropological Records* 6(4):231–356.

Stewart, S. P.
1905 GLO Plat Map for Township 6 South, Range 7 West of the Uintah Special Base Meridian. Surveyor General's Office, Salt Lake City, Utah.

Stokes, William Lee
1986 *Geology of Utah*. Occasional Publication of the Utah Museum of Natural History, No. 6. Salt Lake City.

Strack, Don
2019 Rio Grande in Utah, 1908 to 1988. Available at http://utahrails.net/drgw/rg-in-ut-1908-1988.php. Accessed September 19, 2019.

Talbot, Richard K., and Lane D. Richens
2004 *Fremont Farming and Mobility on the Far Northern Colorado Plateau: The Steinaker Lake Project*. Museum of Peoples and Cultures Occasional Paper No. 10, Brigham Young University, Provo, Utah.

Taniguchi, Nancy J.
1994 The Denver and Rio Grande Western Railway Company. Available at: https://www.uen.org/utah_history_encyclopedia/d/DENVER_AND_RIO_GRANDE_WESTERN_RAILWAY.shtml. Accessed November 12, 2019.

Timpanogos Nation
2019 Timpanogos Nation: Our Ancestors. Available at: www.timpanogostribe.com/ancestors/html. Accessed November 12, 2019.

Toulouse, Julian Harrison
1971 *Bottle Makers and Their Marks*. Thomas Nelson, Inc., New York, New York.

U.S. Geological Survey (USGS)
1886 Price River, Utah. Scale: 1:125,000. USGS, Denver, Colorado.

1939 Duchesne, Utah. Scale: 1:125,000. USGS, Denver, Colorado.

1956 Price, Utah. Scale: 1:125,000. USGS, Denver, Colorado.

1964 Duchesne NE, Utah. Scale: 1:24,000. USGS, Denver, Colorado.

1968 Jones Hollow, Utah. Scale: 1:24,000. USGS, Denver, Colorado.

1969a Kyune, Utah. Scale: 1:24,000. USGS, Denver, Colorado.

1969b Matts Summit, Utah. Scale: 1:24,000. USGS, Denver, Colorado.

Utah Division of State History (UDSH)
2019 *State of Utah Archaeological Compliance Guidance*. Available at https://history.utah.gov/wp-content/uploads/2019/07/ARCH_UTSHPO-Archaeological-Guidance_July2019.pdf. Accessed March 31, 2020.

Utah Professional Archaeological Council
2008 *Linear Sites: Guidance for Identifying and Recording under Section 106 of the National Historic Preservation Act*. Utah Professional Archaeological Council, Salt Lake City. Available at: https://drive.google.com/file/d/1Kblr0co9ZPY8blOSFnfpZDkfUIp519Zv/view. Accessed November 19, 2019.

Utah State Historic Preservation Office and Antiquities Section
2019 *Archaeological Compliance Guidance.* Available at: https://history.utah.gov/wp-content/uploads/2019/04/ARCH_UTSHPO-Archaeological-Guidance_2019.pdf. Accessed November 19, 2019.

Van Cott, J. W.
1990 *Utah Place Names*. University of Utah Press, Salt Lake City.

Waechter, Sharon A.
2010 *Cans*. Available at: http://www.fire.ca.gov/resource_mgt/archaeology/downloads/Cans.pdf. Accessed July 16, 2019.

Walker, Don D.
1964 The Cattle Industry of Utah, 1850–1900: An Historical Profile. *Utah Historical Quarterly* 32(3):182–197.

Watt, R. G.
1997 *A History of Carbon County*. Utah Centennial County History Series. Utah State Historical Society, Salt Lake City.

Whitten, David
2019a Bushwick Glass Works (aka Brookfield Glass Company). Available at: https://www.glassbottlemarks.com/brookfield-glass-company/. Accessed July 16, 2019.

Willis, Christian E.
2019a Hemingray Insulator Profile: CD 155. Available at: http://www.hemingray.info/database/detail.php?cd=155. Accessed July 16, 2019.

2019b Hemingray Insulator Profile: CD 122. Available at: http://www.hemingray.info/database/detail.php?cd=122. Accessed July 16, 2019.

2019c Hemingray Insulator Profile: CD 214. Available at: http://www.hemingray.info/database/detail.php?cd=214. Accessed November 8, 2019.

Wilson, Richard
2015 *Cozy Cabins and a Hyperbolic Paraboloid: Administrative Facilities of the Ashley National Forest, 1905–1968*. Historic Context Statement and Evaluations, Forest Service Report No. AS-15-003. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd512585.pdf. Accessed July 19, 2019.

This page intentionally left blank.