

**United States Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-UT-C010-2015-0055-EA**

August 2016

Fiber Line and Road Right-of-Way

Location: 559 North 100 East
Minersville, Beaver County, UT

Applicant/Address: Cellular Inc. Network Corporation
d/b/a Verizon Wireless
180 Washington Valley Road
Bedminster, New Jersey 07921

Cellco Partnership and its controlled affiliated
d/b/a Verizon Wireless
1500 Solana Boulevard Building 6, Suite 500
Westlake, TX 76262

South Central Communications
P.O. Box 432
Panguitch, UT 84759

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176 East DL Sargent Drive
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435-865-3000



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CHAPTER 1

INTRODUCTION AND NEED FOR THE PROPOSED ACTION

INTRODUCTION

Cellular Inc. Network Corporation/Cellco Partnership and its controlled affiliated d/b/a Verizon Wireless (Verizon Wireless) and South Central Communications (applicants) have filed a Standard Form-299 Application for Transportation and Utility Systems and Facilities on Federal Lands with the Bureau of Land Management (BLM) Cedar City Field Office (CCFO). The applicants propose to develop the UT4 Minersville Cellular Tower Project (project) near the town of Minersville, Utah in southeastern Beaver County. The project area is located in the southeast quarter of Section 1, Township 30, South, Range 10 West and the northeast quarter of Section 12, Township 30 South, Range 10 West. The proposed action includes the installation of underground utilities and the improvement of an existing road on land administered by the BLM CCFO.

This Environmental Assessment (EA) is a site-specific analysis of potential impacts that could result from the implementation of the proposed action or alternatives to the proposed action. An EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and determining whether any significant effects could result from the proposed action. Significance is defined by the Council on Environmental Quality (CEQ) regulations for implementing NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). If the decision makers determine that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR including a FONSI statement documents the reasons why implementation of the selected alternative would not result in significant environmental impacts beyond those already addressed in the Cedar, Beaver, Garfield, Antimony Resource Management (CBGA RMP), approved in 1986 (BLM 1986).

This EA is being prepared in accordance with NEPA for projects involving federal lands. Title I of Federal Land Policy and Management Act (FLPMA) declares that public lands will be managed in a manner "... that will provide for outdoor recreation and human occupancy and use." Title V of FLPMA gives authorization to the Secretary to grant right-of-ways (ROW)s over such lands for "systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communication." The request for the ROW for this Proposed Action has been submitted to the BLM under Title V of FLPMA.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the action is to provide the applicants access across public land managed by the BLM. The need for the BLM action is established by the BLM's responsibility under Title V, Section 501, of the FLPMA (43 U.S.C. 1761) and regulations at 43 CFR 2800.

DECISION TO BE MADE

The BLM will decide whether or not to grant the fiber line and road ROW to Verizon Wireless and South Central Communications, and if so, under what terms and conditions.

CONFORMANCE WITH BLM LAND USE PLAN(S)

The proposed action and alternative described below are in conformance with the CBGA RMP, approved October 31, 1984, and as amended by the Utah Greater Sage-Grouse Approved Resource Management Plan Amendment, approved September 2015. They conform with Objective II A on page 4, which states “The objectives of the lands program are to provide more effective public land management and to improve land use, productivity and utility through: a) accommodation of community expansion and economic development needs; b) improved land ownership patterns; and c) providing for the authorization of legitimate uses of public lands by processing use authorization such as rights-of-way, leases, permits, and State land selections in response to demonstrated public needs.” It has been determined that the proposed action and alternative would not conflict with other decisions throughout the plan.

RELATIONSHIPS TO STATUTES, REGULATIONS AND OTHER PLANS

The Proposed Action is consistent with federal, state and local laws, regulations, and plans to the maximum extent possible, including the following:

- Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776, 43 U.S.C. 1761) and the regulations issued there under at 43 Code of Federal Regulations, part 2800.
- Federal Land Policy and Management Act of 1976
- Regulations found at 43 CFR 2800
- Section 106 of the National Historic Preservation Act of 1966, as amended
- Memorandum of Understanding Between the BLM CCFO and Paiute Indian Tribe of Utah
- BLM Manual 6840- Special Status Species Management
- Utah Comprehensive Wildlife Conservation Strategy (CWCS)
- Utah Greater Sage-Grouse Environmental Impact Statement Record of Decision (ROD) and Approved Resource Management Plan Amendment (ARMPA) (2015)

CHAPTER 2 DESCRIPTION OF ALTERNATIVES

INTRODUCTION

This EA focuses on the proposed and no action alternatives. Other alternatives were not considered because the issues identified during scoping did not indicate a need for additional alternatives or mitigation beyond those contained in the proposed action. The no action alternative is considered and analyzed to provide a baseline for comparison of the impacts of the proposed action.

PROPOSED ACTION

Verizon Wireless and South Central Communications propose to develop the UT4 Minersville Cellular Tower Project (project) near the town of Minersville, Utah in southeastern Beaver County. The proposed action includes the installation of underground fiber optic utilities and the improvement of an existing road on land administered by the Department of the Interior, BLM Cedar City Field Office. The access road and fiber optic utilities would extend to a proposed Verizon Wireless telecommunications tower site to be constructed on the adjacent, privately owned parcel. A 20-foot wide access easement would be located along 0.6 mile of an existing access road extending from the State Road 21 ROW to the proposed telecommunications compound. Approximately 0.38 mile of the easement would be located on BLM-administered lands. Two sections totaling approximately 0.11 mile of the existing road located on BLM-administered lands would be regraded by Verizon Wireless while the remaining portions of the road would remain in their current condition. Fiber optic utilities would extend within the 20-foot wide access easement for approximately 0.2 mile (approximately 0.09 mile on BLM administered land) before turning northwest and traversing another 0.2 mile within a 15-foot wide utility easement to the proposed telecommunications compound (approximately 0.17 mile on BLM administered land). Approximately 0.26 mile of the fiber optic utilities would be located on BLM-administered land. The fiber optic utilities would be installed by South Central Communications using directional boring to minimize surface ground disturbance.

These features are displayed on the site plans included in Appendix A. No other related structures or facilities would be located on BLM land. All permanent equipment, except utility lines, would be located within a fenced compound on the adjacent private property owned by Minersville Town. The lease term would be 30 years which would be 5 years more than the proposed lease agreement between VZW and Minersville Town. Construction would last approximately 2 months.

Verizon Wireless would adhere to noxious weed stipulations, and noxious weeds would be monitored by hand treating or avoiding as needed if present within the working area of the project. Verizon Wireless would also be responsible for noxious weed removal within the ROW by a certified sprayer, provide a pesticide use report, and submit a pesticide use proposal to BLM for approval prior to treating with chemical.

NO ACTION

Under the No Action Alternative, the requested ROW would not be granted and the installation of utilities and the improvements to the existing road located on BLM owned land would not be completed. If BLM were to deny the proposed action, Verizon Wireless would need to construct

a new access road as well as install utilities entirely on privately owned property. No existing alternative routes capable of accommodating heavy machinery are available that reach the proposed tower location.

CHAPTER 3 AFFECTED ENVIRONMENT

INTRODUCTION AND GENERAL SETTING

The affected environment was considered and analyzed by an interdisciplinary team as documented in the Interdisciplinary Team Checklist (Appendix B). Resources which have been determined by BLM resource specialists to not be present in the area addressed in this EA or would not be affected by the proposed action are identified (determination of NP or NI) and summarized in the Interdisciplinary Team Checklist. Resources which could be impacted to a level requiring further analysis are described in Chapter 3 and impacts on these resources are analyzed in Chapter 4 below.

The project is located within the eastern portion of the Tonoquints Volcanic Section of the Basin and Range-Colorado Plateau Transition physiographic province (Stokes 1986). The project area is also located within the Central Basin and Range Ecoregion, where the topography is characterized by isolated mountain ranges separated by wide valley basins. More specifically, the project is located in the southern foothills of the Mineral Mountains on the top of a southwest trending ridge and its southeastern facing slope. The Escalante Desert is located to the west of the project, the Black Mountains are located to the south, and Beaver Valley lies to the east of the project. Elevation throughout the project area ranges from approximately 5,280 feet to 5,475 feet above mean sea level. Land use in the vicinity of the project is currently, and has historically consisted of, rangeland and agriculture with some residential development associated with the town of Minersville. Climate in this region of Utah is classified as cold desert with average temperature ranging from 5 to 95 degrees Fahrenheit with annual average yearly precipitation of 15 inches (Harper 1986). Vegetation within the project area is sparse and dominated by invasive weeds, native grasses, sage brush, and rabbitbrush. Representative photos are included in Appendix C.

RESOURCES BROUGHT FORWARD FOR ANALYSIS

Resource A: Soils & Vegetation

The site appeared to be primarily disturbed due to historic grazing, an existing road within the access easement, and a large historic dumping area within the utility easement. Total vegetation cover was observed to be sparse and comprised approximately 25%. The vegetation is dominated by invasive perennial/annual grassland and forbland communities, which comprise approximately 80% of the vegetation cover in the survey area. Scattered sagebrush (*Artemisia tridentata tridentata*), and rabbitbrush (*Chrysothamnus spp.*) comprise the remainder of the site. Weedy species recorded included cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola kali*), kochia (*Kochia scoparia*), saltlover (*Halogeton glomeratus*), clasping pepperweed (*Lepidium perfoliatum*), herb sophia (*Descurainia sophia*), and tumble mustard (*Sisymbrium altissimum*).

The soils in the area are colluvial and residual in nature and evidence of erosion was observed at the site. Representative photos are included in Appendix C.

Resource B: Special Status Animal Species

The project is located in the Bald Hills Priority Habitat Management Area (PHMA) for the greater sage-grouse (Appendix E, Figure 1). The area is mapped as Utah Division of Wildlife Resources (UDWR) occupied habitat.

Based on a recent field evaluation (Tetra Tech 2015), habitat conditions for greater sage-grouse are poor at the site, likely due to the high level of human disturbance that has historically occurred. The vegetation is sparse, with approximately 25% total cover. The community is dominated by invasive grasses and weeds and has a low percent cover of shrubs (scattered rabbitbrush and sagebrush). Sagebrush cover is very low, less than 5%. There is evidence of past grazing. The area does not provide suitable habitat for sage-grouse in its current condition.

Construction is not anticipated to occur during the 2016 nesting season (April 1 – July 30) to avoid impacts to ground nesting birds and raptors.

CHAPTER 4 ENVIRONMENTAL IMPACTS

DIRECT AND INDIRECT IMPACTS

In this analysis, short-term impacts are those effects that would occur over a period of one year or less (i.e., during the installation of utilities and grading of the road). Long-term impacts are those effects that would occur over a greater than one-year period (i.e., after construction is complete).

PROPOSED ACTION

This section analyzes the impacts of the proposed action to those potentially impacted resources described in Chapter 3, above.

Resource A: Soils & Vegetation

The majority of the proposed project is located within previously disturbed areas. The proposed 0.38 mile access road ROW would be located over an existing access road. Three sections of the existing road would be regraded and minimal disturbance is anticipated. The additional 0.17-mile portion of the proposed utility ROW located outside of the proposed access road ROW would involve minimal surface disturbance and vegetation removal because the utilities would primarily be bored. This portion of the utilities easement is also located in an area that has previously been disturbed by a large historic trash dumping area and an adjacent existing power line.

Existing sage brush, soil, and native grasses may be removed for the excavation for the electric and fiber-optic utility installation. No long-term impacts to soils or vegetation are anticipated as disturbed areas would be reseeded following implementation of the proposed action. The seed mix would be in accordance to the reclamation plan provided (Appendix G).

Resource B: Special Status Animal Species

Greater sage-grouse prefer sagebrush communities with a mixture of perennial forbs in the understory, which were not present in the survey area. Radio-collared sage-grouse in the Bald Hills population used areas with 28-38% shrub cover, whereas the project area had less than 10% shrub cover. Based on habitat suitability indicators in Stiver et al. (2010), the project area is unsuitable habitat for any seasonal use because of the low shrub and sagebrush cover, dominance by invasive forbs and grasses, and high level of disturbance. Stiver et al. (2010) state that unsuitable habitat includes areas that are potential shrublands but are currently dominated by grass, annual grass, or incompatible land uses (including anthropogenic features). These areas do not provide the basic requirements of food (sagebrush, forbs) and shelter (sagebrush, other shrubs). In addition, the area in the surrounding Mineral Mountains is categorized as non-habitat or opportunity habitat by UDWR, and is isolated from suitable breeding, summer, and winter habitat known to be used by the Bald Hills population to the south and southeast of the project. Finally, no sage-grouse from the radio-telemetry study were documented north of Highway 21 (Burnett 2013). For these reasons, greater sage-grouse are unlikely to use the project area, and the project would not impact sage-grouse or suitable habitat.

Greater Sage-Grouse analysis was completed in conformance with the Greater Sage-Grouse Environmental Impact Statement ROD and ARMPA to encompass the actions proposed on the adjacent private land parcel (Appendix E). The project would involve temporary disturbance associated with the access road improvements, installation of the communication compound, and power line easement. Areas of temporary disturbance associated with project construction would be reseeded with native species and noxious weeds would be controlled. The project would result in a net conservation gain to greater sage-grouse because reclamation activities would improve the vegetation from being non-functional to providing beneficial forage species and sagebrush in the area.

NO ACTION

Under the No Action Alternative, the requested ROW would not be granted, and the installation of utilities and the improvements to the existing road located on BLM land would not be completed. Verizon Wireless would construct a new access road and install utilities entirely on privately owned land. Constructing or improving other access routes on privately-owned lands would create a greater impact to all resources than improving the existing roadway.

CUMULATIVE IMPACTS

Cumulative impacts are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions.

The Cumulative Effects Study Areas (CESAs) for this project were defined for each potentially affected resource as follows.

Table 4.1: Cumulative Effects Study Areas (CESAs) by Resource.

Resource	CESA	Total CESA Acreage	Rationale
Soils & Vegetation	Warm Spring-Beaver River Watershed	14,975 acres	The Warm Spring-Beaver River watershed was chosen as the natural biological boundary of soils and vegetation.
Special Status Animal Species	Bald-Hills Sage-Grouse Priority Habitat Management Area (four mile buffer of proposed new disturbance)	33,856 acres	A four mile buffer of the proposed disturbance within Bald-Hills Sage-Grouse PHMA was chosen as the biological habitat boundary for sage-grouse.

Past, Present and Reasonably Foreseeable Future Actions

Past and present action in the CESAs include agricultural development, livestock grazing, mineral resource extraction activities, recreational activities, and residential development associated with the town of Minersville.

Reasonably foreseeable future actions (RFFAs) are decisions, funding, or formal proposals that are either existing or are highly probable based on known opportunities or trends. RFFAs occurring within the CESAs include agricultural development, livestock grazing, mineral resource extraction activities, recreational activities, and infrastructure development, such as the proposed associated communications tower and associated equipment located on the privately-owned parcels adjacent to the proposed project area.

Verizon Wireless proposes to construct a 156-ft self-support telecommunications tower and place a 12-ft by 25-ft equipment shelter within a 35-ft by 55-ft fenced lease area. Approximately 0.19 mile of the proposed access road and 0.15 of the proposed fiber optic utility is located on private land. An additional power conduit would be installed on the adjacent private parcel within a portion of the 0.2 mile-long, 15-foot wide utility easement extending approximately 90 feet from the proposed lease area to a new proposed power pole. Rocky Mountain Power would also install an overhead power line on the adjacent private parcel extending south-southeast approximately 35 feet within an additional 15-foot wide utility easement from the new proposed power pole to existing power lines.

Cumulative Impacts by Resource Issue Category

Cumulative impacts organized by resource issue category are described below. Under the No Action alternative, Verizon Wireless would seek to construct an access road and install utilities to their proposed tower across private lands. The cumulative effects resulting from this alternative are not known at this time; therefore, no cumulative impacts analysis associated with the No Action alternative is presented below.

Resource A: Soils and Vegetation

Minimal cumulative effects to soil and vegetation within the Warm Spring-Beaver River Watershed are anticipated. The area within the telecommunications compound is primarily disturbed and consists of non-native plant species. The cumulative disturbance for the telecommunications compound and associated access and utility easements would possibly result in an overall improvement to vegetation in the area since the temporary disturbance would be reseeded with native species and noxious species would be controlled.

Resource B: Special Status Species

Existing disturbance on both public and private land comprises 329.4 acres of the CESA, and the project proposes approximately 4.0 acres of new disturbance; therefore, the existing and proposed disturbance would encompass a total of 333.4 acres, or 0.9% of the CESA, which is below the 3% cap described in the ARMPA for greater sage grouse. Areas disturbed on both public and private land would be reclaimed once construction is complete. The seed mix that would be used includes approximately 75 percent native grasses, 12.5 percent small burnet (*Sanguisorba minor*), 8.3 percent four-wing salt bush (*Atriplex canescens*) and 4.2 percent Wyoming big sagebrush (*Artemisia tridentata wyomingensis*).

Greater sage-grouse presently do not use the project area (Appendix E). The vegetation community in its current condition is not functional sage-grouse habitat, but is dominated by invasive grasses and weeds. Temporary disturbance areas associated with project construction would be reseeded with native species and noxious weeds would be controlled. The project would result in a net conservation gain to greater sage-grouse because reclamation activities

would improve the vegetation from being non-functional to providing beneficial forage species and sagebrush in the area. For example, one of the species included in the seed mix is small burnet, which is considered good forage for greater sage-grouse, and also deters establishment of invasive and noxious weeds (Fryer 2008).

CHAPTER 5
PERSONS, GROUPS, AND AGENCIES CONSULTED

During preparation of the EA, the public was notified of the proposed action by posting it on the BLM’s Front Office webpage https://eplanning.blm.gov/epl-front-office/eplanning/lup/lup_register.do. A 15 day public comment period was offered from July 20, 2016 to August 4, 2016. No responses have been received.

Table 5.1. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
U.S. Fish & Wildlife Service (USFWS)	Consultation under Section 7 of the Endangered Species Act (16 USC 1531) conducted on behalf of the Federal Communications Commission (FCC) for the associated telecommunications tower proposed to be located on the adjacent, privately owned parcel.	The Service agrees, by letter dated January 7, 2016, that the proposed action is not likely to adversely affect listed species (Refer to Appendix F)
Utah State Historic Preservation Office (SHPO)	Consultation for undertakings, as required by the National Historic Preservation Act (NHPA) (16 USC 470)	Since no historic properties were found in the project area, the project will be reviewed by SHPO as part of the quarterly submittal as per existing protocol.
Paiute Indian Tribe of Utah	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	In accordance with the Memorandum of Understanding between the Paiute Tribe of Utah and the BLM, this project does not require formal consultation.
Utah Div. of Wildlife Resources	Consult with UDWR as the agency with expertise on impacts on game species.	The UDWR has stated there are no records of occurrence for any threatened, endangered, or sensitive species within the project area. (Refer to Appendix F)

List of Preparers

BLM staff specialists who determined the affected resources for this document are listed in Appendix B. Those who contributed further analysis in the body of this EA are listed below.

Table 5.2. List of Preparers

BLM Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Michelle Campeau	Realty Specialist	Project Lead
Sheri Whitfield	Wildlife Biologist	Fish and Wildlife
Gina Ginouves	NEPA and Planning Specialist	Document Review

Non-BLM (Tetra Tech) Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Molly Kuisle	Environmental Scientist	Documentation Preparation
Kathy Bellrichard	Environmental Scientist	Natural Resources Consultation
Wendy Rieth	Environmental Specialist/GIS Specialist	Sage-Grouse Analysis
Mark Karpinski	Principal Investigator	Cultural Resources Documentation

CHAPTER 6

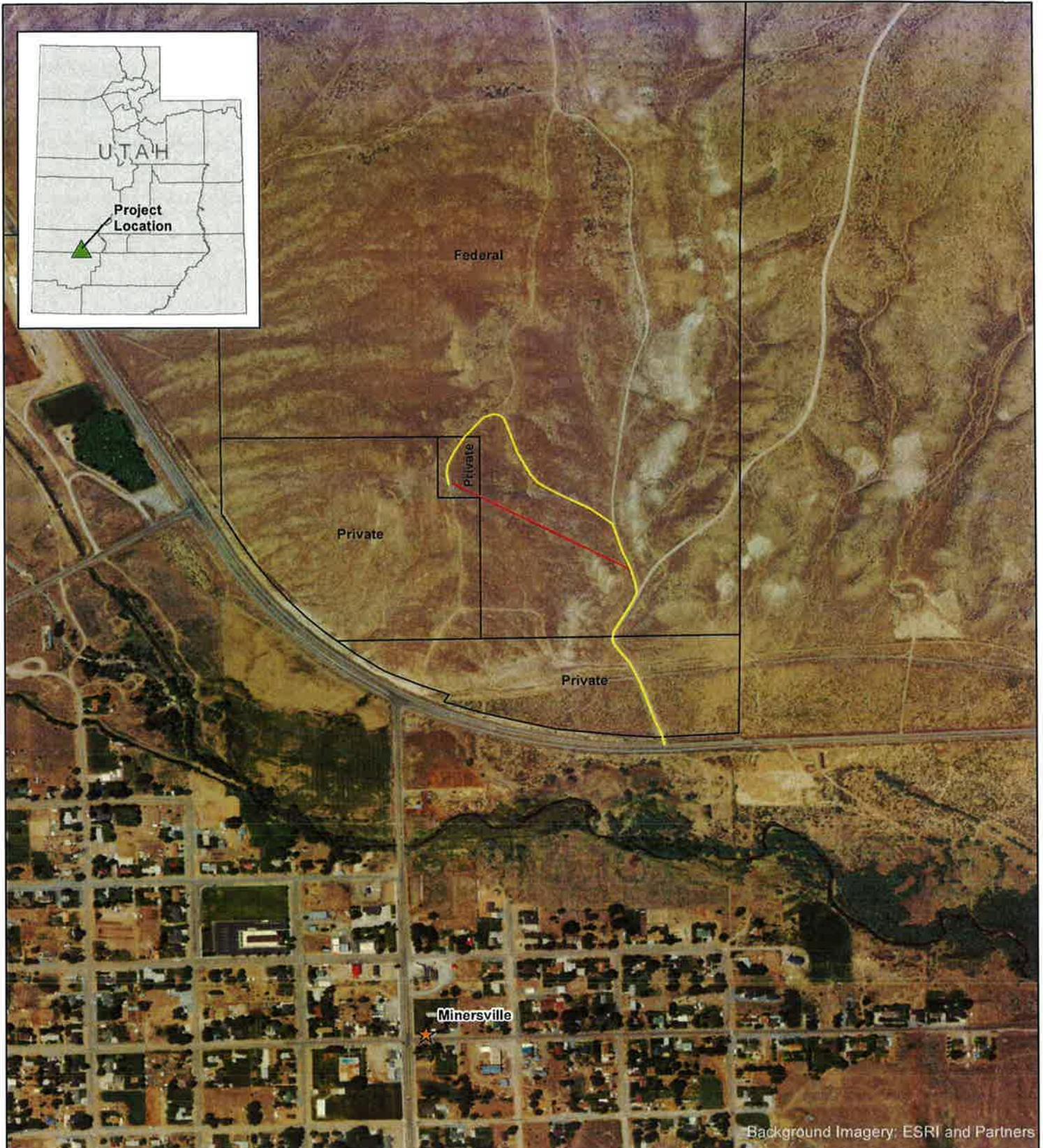
REFERENCES

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- United States Bureau of Land Management (BLM). 2015. Utah Greater Sage-Grouse Approved Resource Management Plan. September, 2015.
- Utah Division of Wildlife Resources (UDWR). 2013. Final Conservation Plan for Greater Sage-grouse in Utah. Utah Division of Wildlife Resources. February 14, 2013
- Utah Department of Wildlife Resources (UDWR). 2015. Data request response from S. Lindsay, UDWR Database Manager. December 22, 2015.

APPENDICES

APPENDIX A

SITE FIGURES



Background Imagery: ESRI and Partners

Legend

-  Project Location
-  City/Town
-  Proposed Access Road
-  Proposed Utility Easement (approx. location)

-  Parcel Boundary
-  County Boundary

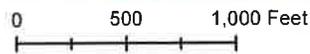


Figure 1. Project Area

UT4 Minersville Cellular Tower Project

Verizon Wireless

Section 1 and 12, T 30S, R10W
Beaver County, Utah

APPROVED

By Robert Whitlock at 10:09 am, Aug 26, 2015

APPROVED

By Craig Skinner at 10:30 am, Aug 26, 2015

verizonwireless

UT4 - MINERSVILLE

verizon
wireless

VERIZON WIRELESS
9656 SOUTH PROPERTY ROAD
WEST JORDAN, UTAH 84086

TAEC

Technology Associates Engineering Corporation Inc.
TECHNOLOGY ASSOCIATES

UTAH MARKET OFFICE
5710 SOUTH GREEN STREET
SALT LAKE CITY, UTAH 84123

CORPORATE OFFICE
3115 SOUTH MEDARSE DRIVE, SUITE #110
CARLSBAD, CALIFORNIA 92010

DRAWN BY: JMY C
CHECKED BY: DM T

1 08.24.2015 FIBER ROUTE
0 08.12.2015 ZONING DRAWINGS
REV DATE DESCRIPTION

UTA - MINERSVILLE
SE SEC 1, T30S, R10W
S59 NORTH 100 EAST
MINERSVILLE, UTAH 84752
-- RAWLAND SITE --

SHEET TITLE
VICINITY MAP
GENERAL INFORMATION

SHEET NUMBER:
T100

SITE INFORMATION

APPLICANT:
VERIZON WIRELESS
9656 SOUTH PROPERTY ROAD
WEST JORDAN, UTAH 84086

SITE ADDRESS:
508 NORTH 100 EAST
MINERSVILLE, UTAH 84752

LATITUDE AND LONGITUDE:
N 38°13'28.73" S W 112°55'22.85"

ZONING JURISDICTION:
BEAVER COUNTY

PROJECT DESCRIPTION:
VZW IS PROPOSING TO CONSTRUCT AN UNMANNED COMMUNICATIONS FACILITY
CONSISTING OF TWO ANTENNAS MOUNTED ON A 11'-0" X 25'-5.5" PREFABRICATED EQUIPMENT SHELTER
LOCATED INSIDE A 11'-0" X 25'-5.5" PREFABRICATED EQUIPMENT SHELTER

TYPE OF CONSTRUCTION:
PRE-FAB SHELTER, LATTICE TOWER, AND ANTENNAS

HANDICAP REQUIREMENTS:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, HANDICAP ACCESS
REQUIREMENTS WILL NOT APPLY

POWER COMPANY:
ROCKY MOUNTAIN POWER, 1-888-221-7070

LOCATION MAP



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, AND EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRIVING DIRECTIONS

FROM THE VZW WEST JORDAN OFFICE, TAKE I-15 SOUTH TO BEAVER CITY EXIT #112. TURN LEFT AND HEAD EAST AND ROAD CURVES AND TURNS INTO MAIN STREET AND CONTINUE SOUTH FOR 2.5 MILES. TURN RIGHT ON GREENHILL WEST FOR 0.8 MILES TO THE FIRST ROAD LEADING UP TO THE SITE (TURNOFF IS LOCATED AT 38°13'09.837(11255'09.41"). TURN RIGHT AND FOLLOW DIRT ROAD NORTHERLY TO THE SITE WHICH WILL BE LOCATED JUST NORTH OF THE OLD TV ANTENNA STATION.

APPROVALS

VERIZON WIRELESS REPRESENTATIVE:
VERIZON WIRELESS BY ENGINEER:
TAEC SITE ACQUISITION:
TAEC CONSTRUCTION MANAGER:
SITE OWNER:

DRAWING INDEX

SHEET NO.	SHEET TITLE	REV	DATE
T100	TITLE SHEET, VICINITY MAP, GENERAL SITE INFORMATION	1	08.24.2015
SURV	SITE SURVEY	0	
C100	OVERALL SITE PLAN	1	08.24.2015
C101	ENLARGED SITE PLAN	1	08.24.2015
C200	SITE ELEVATIONS	0	



UNDERGROUND SERVICE ALERT, CALL 'BLUE STAKES OF UTAH' @ 811 OR 1-800-662-4111
THREE WORKING DAYS BEFORE YOU DIG

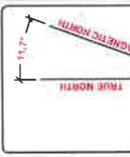




VERIZON WIRELESS
 TECHNOLOGY SERVICES
 5710 NORTH CENTRAL EXPRESSWAY
 SUITE 2000, DALLAS, TEXAS 75206
 VERIZON WIRELESS
 5710 NORTH CENTRAL EXPRESSWAY
 SUITE 2000, DALLAS, TEXAS 75206
 CORPORATE OFFICE
 3115 CALLE DEL MAR, CARLSBAD, CALIFORNIA 92008

SURVEY PREPARED BY:
SUPERIOR SURVEYING, LLC
 10000 W. 15TH AVENUE, SUITE 100
 DENVER, COLORADO 80202

PROJECT NO.	02-0059-0004
DRAWN BY:	JERRY F.
CHECKED BY:	JERRY F.
DATE:	02-01-2012
SCALE:	AS SHOWN
DESCRIPTION:	



PROPERTY:
 CITY - MINERSVILLE
 SE SEC. 1, T20S, R10W
 558 NORTH 100 EAST
 MINERSVILLE, ILLINOIS 62450
 --- RAILROAD SITE ---

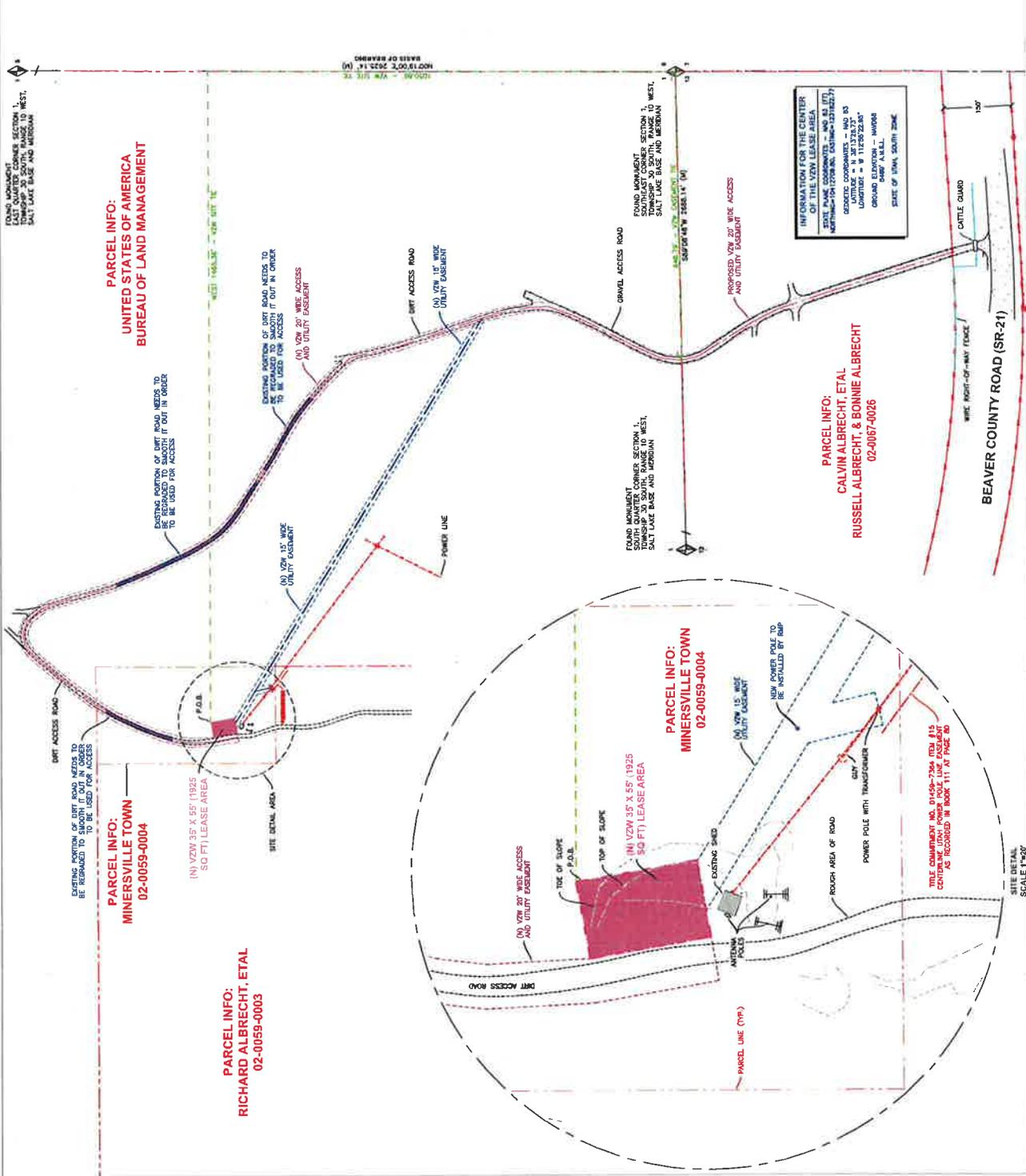
SITE SURVEY
 SHEET NUMBER
SURV

PARCEL INFO:
MINERSVILLE TOWN
02-0059-0004

PARCEL INFO:
UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT

PARCEL INFO:
RICHARD ALBRECHT, ETAL
02-0059-0003

PARCEL INFO:
CALVIN ALBRECHT, ETAL
RUSSELL ALBRECHT, & BONNIE ALBRECHT
02-0057-0026



INFORMATION FOR THE CENTER OF THE VZW LEASE AREA (ITL)
 POINT COORDINATES - NAD 83
 ELEVATION - 1122.2238'
 UTM ZONE - 18T UTM EASTING
 UTM NORTHING - 4800000
 STATE OF ILLINOIS, SOUTH ZONE

FOUND MONUMENT
 EAST QUARTER CORNER SECTION 1, TOWNSHIP 20 SOUTH, RANGE 10 WEST, COUNTY OF DEWITT, ILLINOIS
 FOUND MONUMENT
 EAST QUARTER CORNER SECTION 1, TOWNSHIP 20 SOUTH, RANGE 10 WEST, COUNTY OF DEWITT, ILLINOIS
 FOUND MONUMENT
 EAST QUARTER CORNER SECTION 1, TOWNSHIP 20 SOUTH, RANGE 10 WEST, COUNTY OF DEWITT, ILLINOIS

ASAC INFORMATION SHEET 91:003

INFORMATION REGARDING SURVEY DATA SUBMITTED TO THE FAA

FAA Order 8260.19c requires proponents of certain proposed construction (located beneath instrument procedures) provide the FAA with a site survey and/or letter, from a licensed land surveyor, which certifies the site coordinates and the surface elevation at the site. On October 15, 1992, the FAA started using the North American Datum of 1983 (NAD-83), and therefore all site coordinates should be based on NAD-83. The FAA requires that the survey letter contain an accuracy statement that meets accuracy tolerances required by the FAA. The most requested tolerances are +/- 50 feet in the horizontal and +/- 20 feet in the vertical (2-C). When the site coordinates and/or site elevation can be certified to a greater accuracy than requested by the FAA, please do so.

In order to avoid FAA processing delays, the original site survey or certifying letter should be attached to the 7460 when it is filed at the FAA's regional office. It must be signed and sealed by the licensed land surveyor having performed or supervised the survey.

The FAA accuracy codes and a sample accuracy statement are listed below.

ACCURACY CODES:

<u>Code</u>	<u>HORIZONTAL</u>	<u>Tolerance</u>	<u>Code</u>	<u>VERTICAL</u>	<u>Tolerance</u>
1		+/- 15 ft	A		+/- 3 ft
2		+/- 50 ft	B		+/- 10 ft
3		+/- 100 ft	C		+/- 20 ft
4		+/- 250 ft	D		+/- 50 ft
5		+/- 500 ft	E		+/- 125 ft
6		+/- 1000 ft	F		+/- 250 ft
7		+/- 1/2 NM	G		+/- 500 ft
8		+/- 1 NM	H		+/- 1000 ft
9		Unknown	I		Unknown

Date: MAY 07, 2015

Re: UT4 - MINERSVILLE

SE 1/4 OF SECTION 01, TOWNSHIP 30 SOUTH, RANGE 10 WEST, SALT LAKE MERIDIAN

I certify that the latitude of N 38°13'26.73", and the longitude of W 112°55'22.95", are accurate to within 15 feet horizontally and the site elevation of 5469 feet, AMSL (American Mean Sea Level), is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are in terms of the North American Datum of 1983 (NAD-83) and are expressed as degrees, minutes and seconds, to the nearest (tenth/hundredth) of a second. The vertical datum (heights) are in terms of the (NAVD88) and are determined to the nearest foot.



Professional Licensed Land Surveyor:
1-A FAA Letter

Jerry Fletcher, Utah LS no. 6436064



VERIZON WIRELESS
8400 SOUTH PROSPERITY ROAD
WEST JORDAN, UTAH 84088

TABC

Technology Associates, Inc.
Engineering Corporation
Technology Associates

UTAH MARKET OFFICE
9710 SOUTH GREEN STREET
SALT LAKE CITY, UTAH 84125
CORPORATE OFFICE
3115 SOUTH MELROSE DRIVE, SUITE #110
CARLSBAD, CALIFORNIA 92010

DRAWN BY: JMY C
CHECKED BY: DM T

1 06.24.2015 FIBER ROUTE
0 06.12.2015 ZONING DRAWINGS
REV DATE DESCRIPTION

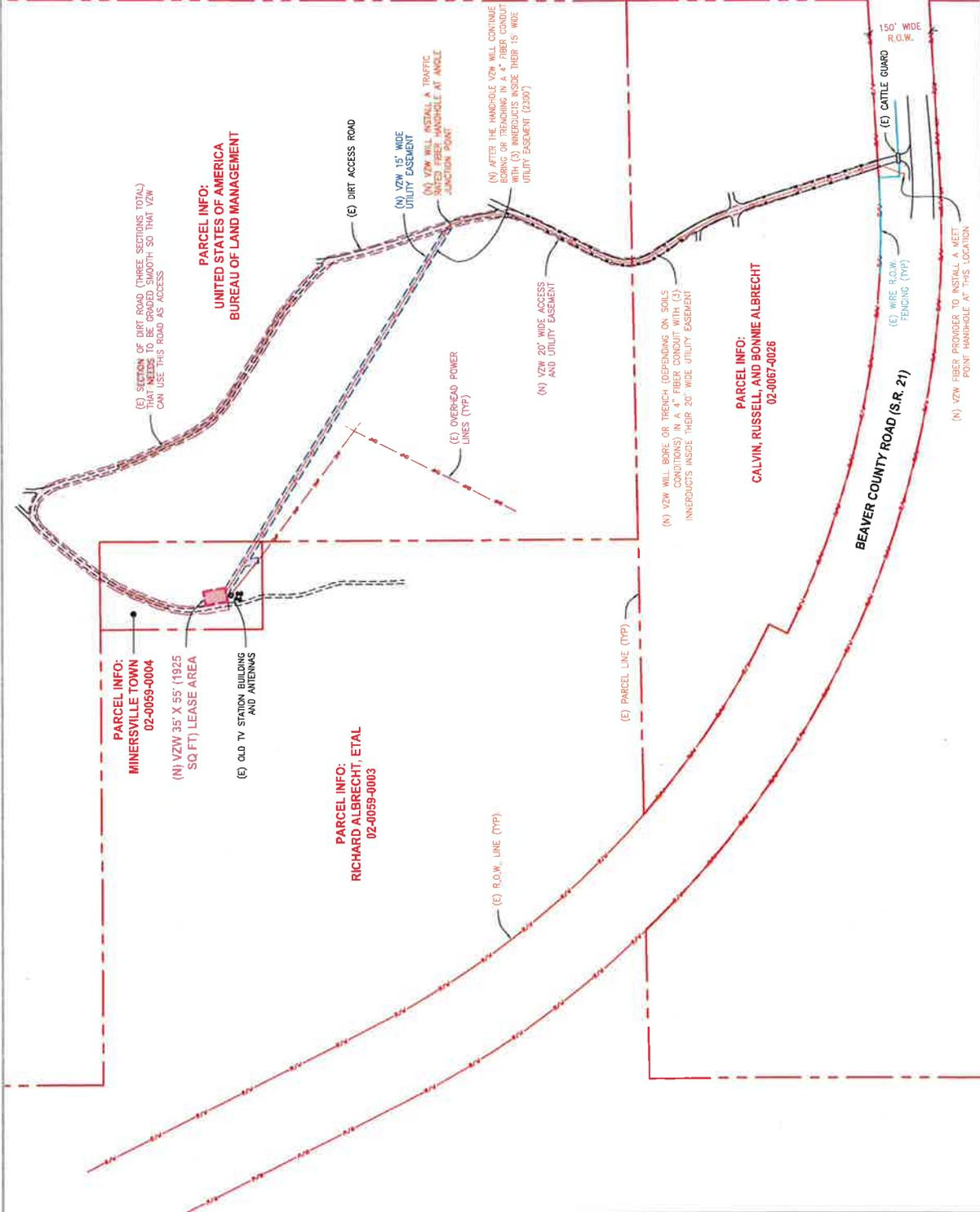
UTA - MINERSVILLE
SE SEC 17 T30S, R10W
S59 NORTH 100' EAST
MINERSVILLE, UTAH 84752
-- RAWLAND SITE --

SHEET TITLE
OVERALL SITE PLAN

SHEET NUMBER
C100



SCALE: 1/4" = 60'-0"



OVERALL SITE PLAN

1



VERIZON WIRELESS
 8800 SOUTH PROSPERITY ROAD
 WEST JORDAN, UTAH 84088

TAEC
 Technology Associates Engineering Corporation Inc.
TECHNOLOGY ASSOCIATES

UTAH MARKET OFFICE
 500 WEST 1000 SOUTH
 SALT LAKE CITY, UTAH 84143

CORPORATE OFFICE
 3115 SOUTH MELROSE DRIVE, SUITE #110
 CARLSBAD, CALIFORNIA 92010

DRAWN BY: JNY C

CHECKED BY: DM T

REV	DATE	DESCRIPTION
1	08/24/2015	FIBER ROUTE
0	05/12/2015	ZONING DRAWINGS

UT4 - MINERSVILLE
 SE SEC 1, T30S, R10W
 559 NORTH 100 EAST
 MINERSVILLE, UTAH 84752
 --- RAWLAND SITE ---

SHEET TITLE

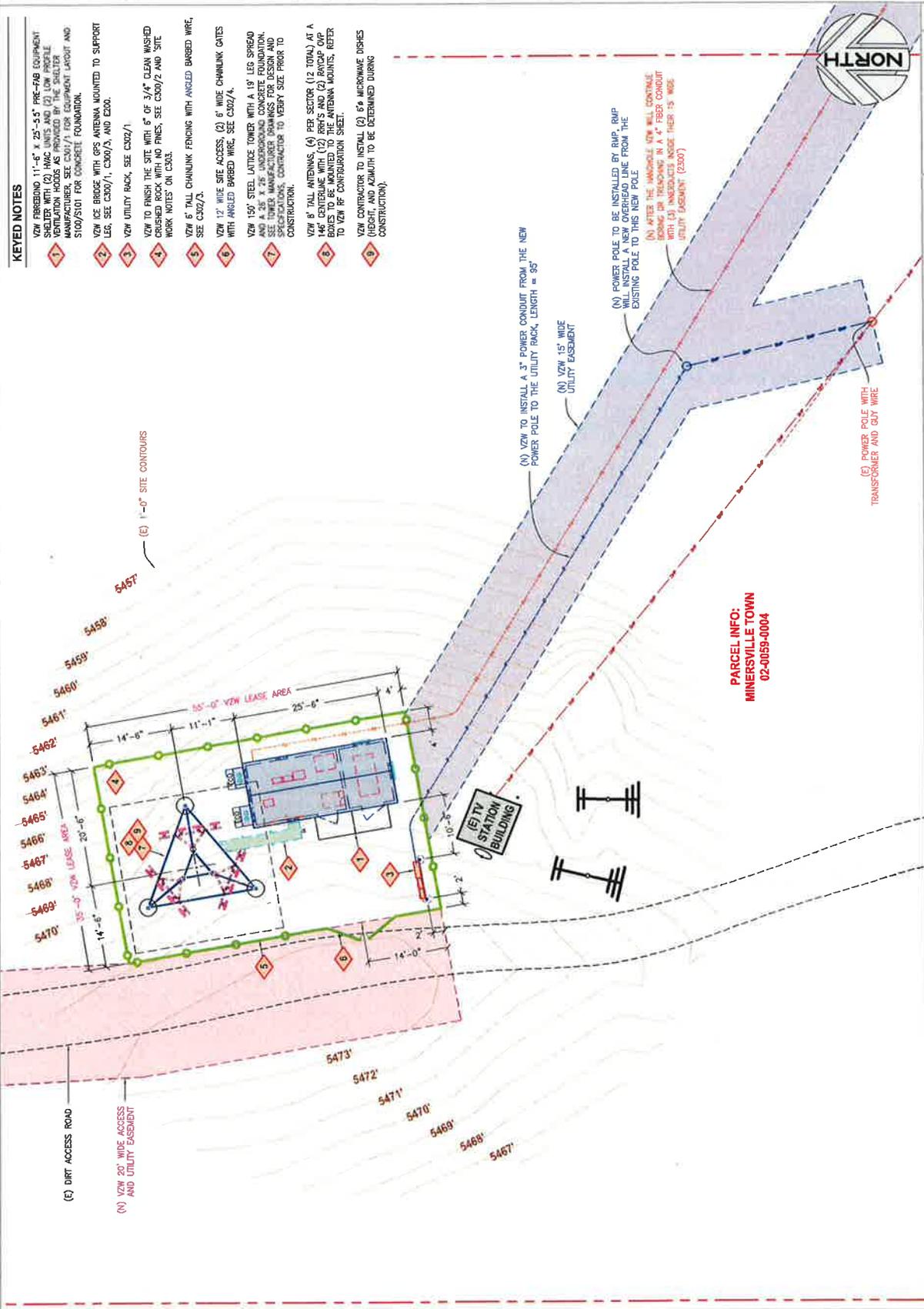
ENLARGED SITE PLAN

SHEET NUMBER

C101

KEYED NOTES

- 1 VZW FIBER/DROP 11'-6" X 23'-5.5" PRE-FAB EQUIPMENT SHELTER WITH (2) HVAC UNITS AND (2) LOW PROFILE VENTILATION HOODS AS PROVIDED BY THE SHELTER MANUFACTURER. SEE C300/1 FOR EQUIPMENT LAYOUT AND SUD/S101 FOR CONCRETE FOUNDATION.
- 2 VZW ICE BRIDGE WITH GPS ANTENNA MOUNTED TO SUPPORT LEG. SEE C300/1, C300/3, AND E200.
- 3 VZW UTILITY RACK. SEE C302/1.
- 4 VZW TO FINISH THE SITE WITH 6" OF 3/4" CLEAN WASHED CRUSHED ROCK WITH NO PINES. SEE C300/2 AND SITE WORK NOTES' ON C303.
- 5 VZW 6" TALL CHAINLINK FENCING WITH ANGLED BARBED WIRE. SEE C302/2.
- 6 VZW 12" WIDE SITE ACCESS. (2) 6" WIDE CHAINLINK GATES WITH ANGLED BARBED WIRE. SEE C302/4.
- 7 VZW 150' STEEL LATTICE TOWER WITH A 18' LEG SPREAD AND 12' WIND BRACE. SEE C300/3 FOR DIMENSIONS AND SEE TOWER MANUFACTURER DRAWINGS FOR DESIGN AND SPECIFICATIONS. CONTRACTOR TO VERIFY SIZE PRIOR TO CONSTRUCTION.
- 8 VZW 6" TALL ANTENNAS. (4) PER SECTOR (12 TOTAL) AT A 144' STEEL LATTICE TOWER. (2) PER SECTOR (6 TOTAL) ON 144' STEEL LATTICE TOWER. (2) PER SECTOR (6 TOTAL) ON 144' STEEL LATTICE TOWER. (2) PER SECTOR (6 TOTAL) ON 144' STEEL LATTICE TOWER. REFER TO VZW RF CONFIGURATION SHEET.
- 9 VZW CONTRACTOR TO INSTALL (2) 8" MICROWAVE DISHES (RIGHT AND AZIMUTH) TO BE DETERMINED DURING CONSTRUCTION.



PARCEL INFO:
 MINERSVILLE TOWN
 02-0059-0004

SCALE: 1/16" = 1'-0"

ENLARGED SITE PLAN



VERIZON WIRELESS
 9455 SOUTH PROSPERITY ROAD
 WEST JORDAN, UTAH 84088

TABC
 Technology Associates Engineering Corporation
TECHNOLOGY ASSOCIATES
 UTAH MARKET OFFICE
 8710 SOUTH GREEN STREET
 SALT LAKE CITY, UTAH 84125
 CORPORATE OFFICE
 3115 SOUTH MELROSE BLVD, SUITE #110
 CARLSBAD, CALIFORNIA 92010

DRAWN BY: JAY C
 CHECKED BY: DAN T

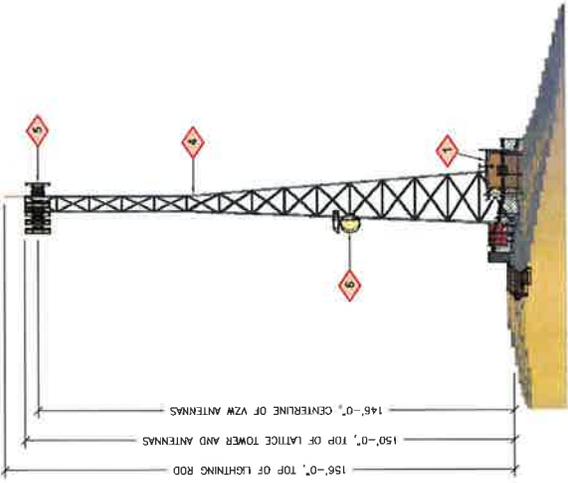
REV	DATE	DESCRIPTION
0	06.12.2015	ISSUE FOR PERMITS

UTAH -- MINERSVILLE
 SE SEC 1, T30S, R10W
 S89 NORTH 100 EAST
 MINERSVILLE, UTAH 84752
 --- RAWLAND SITE ---

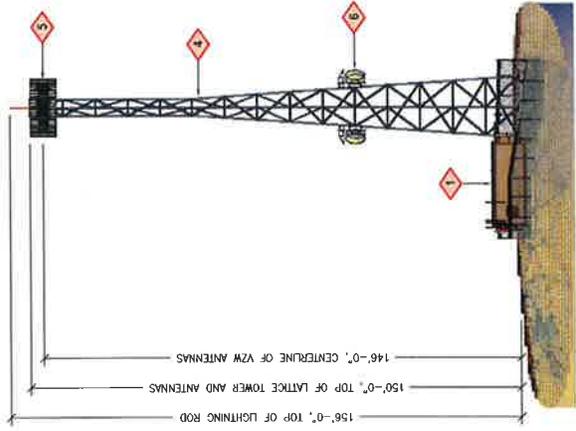
SHEET TITLE
SITE ELEVATIONS

SHEET NUMBER
C200

SITE ELEVATION
 LOOKING NORTH

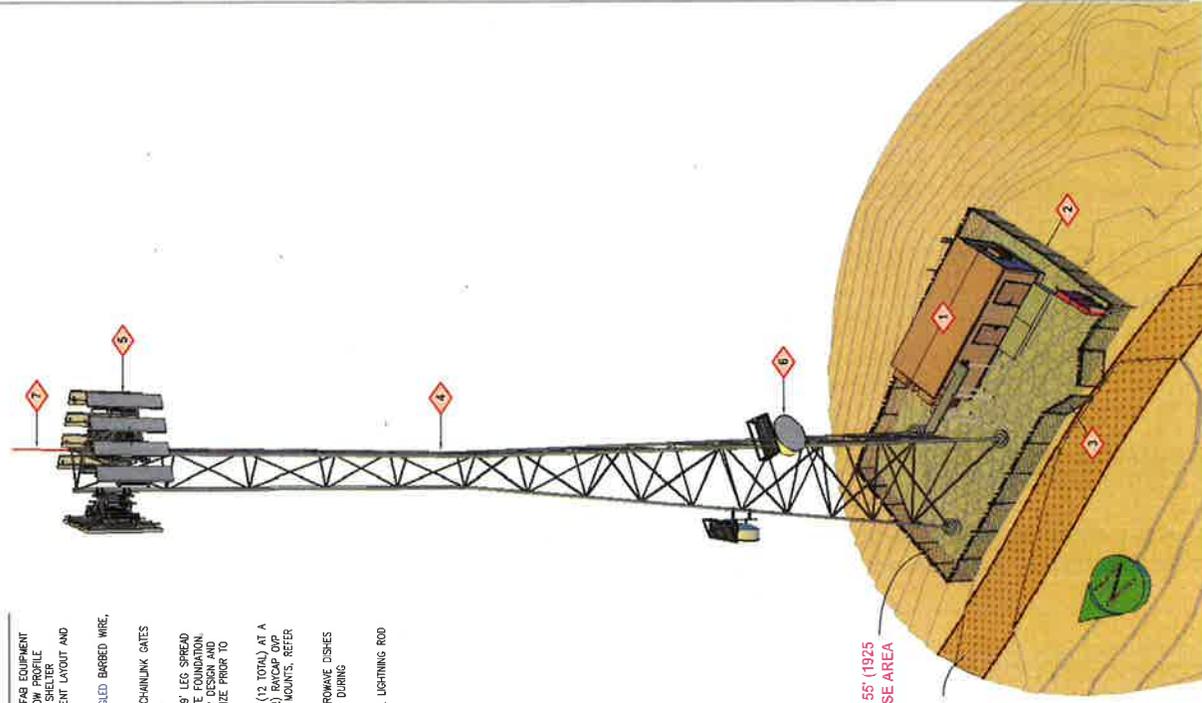


SITE ELEVATION
 LOOKING WEST



KEYED NOTES

- 1 VZW FIBERDRO 11'-6" x 25'-3.5" PRE-FAB EQUIPMENT MOUNTS TO BE INSTALLED ON THE 6' TALL LATTICE VZW ANTENNAS AS PROVIDED BY THE SHEDDER MANUFACTURER. SEE C301/1 FOR EQUIPMENT LAYOUT AND S100/S101 FOR CONCRETE FOUNDATION.
- 2 VZW 6' TALL CHAINLINK FENCING WITH ANGLED BARBED WIRE. SEE C302/3.
- 3 VZW 12' WIDE SITE ACCESS. (2) 6' WIDE CHAINLINK GATES WITH ANGLED BARBED WIRE. SEE C302/4.
- 4 VZW 150' STEEL LATTICE TOWER WITH A 19' LEG SPREAD AND A 26" X 26" UNDERGROUND CONCRETE FOUNDATION. THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR TO VERIFY SIZE PRIOR TO CONSTRUCTION.
- 5 VZW 6' TALL ANTENNAS, (4) PER SECTOR (12 TOTAL), AT A HEIGHT OF 146' TO 150'. THE ANTENNAS SHALL BE REFERRED TO AS VZW RF CONFIGURATION SHEET.
- 6 VZW CONTRACTOR TO INSTALL (2) 6" MICROWAVE DISHES (HEIGHT, AND AZIMUTH TO BE DETERMINED DURING CONSTRUCTION).
- 7 VZW CONTRACTOR TO INSTALL THE 6' TALL LIGHTNING ROD AS SUPPLIED BY TOWER MANUFACTURER.



SITE ELEVATION
 NORTHEAST VIEW

APPENDIX B
INTERDISCIPLINARY TEAM CHECKLIST

INTERDISCIPLINARY TEAM NEPA EA REVIEW CHECKLIST

Project Title: Cellular Inc. Fiber Line and Road Right-of-Way

NEPA Log Number: DOI-BLM-UT-C010-2015-0055-EA

File/Serial Number: UTU-91277

Project Leader: Michelle Campeau (435) 865-3047

STAFF REVIEW OF RESOURCES AND ISSUES CONSIDERED:

RESOURCE	SPECIALIST	DRAFT EA REVIEW INITIAL/DATE	FINAL DOCUMENTATION REVIEW INITIAL/DATE
Air Quality	NI	N/A	N/A
Areas of Critical Environmental Concern	NP	N/A	N/A
Cultural Resources	Jamie Palmer	Changed from PI to NI	N/A
Greenhouse Gas Emissions	NI	N/A	N/A
Environmental Justice	NI	N/A	N/A
Farmlands (Prime or Unique)	NP	N/A	N/A
Fish and Wildlife	NI	N/A	N/A
Floodplains	NP	N/A	N/A
Fuels/Fire Management	NI	N/A	N/A
Geology / Mineral Resources/Energy Production	NI	N/A	N/A
Hydrologic Conditions	NI	N/A	N/A
Invasive Species/Noxious Weeds	Jess Bulloch	Changed from PI to NI	N/A
Lands/Access	NI	N/A	N/A
Livestock Grazing	NI	N/A	N/A
Migratory Birds.	NI	N/A	N/A
Native American Religious Concerns	NI	N/A	N/A
Paleontology	NI	N/A	N/A
Rangeland Health Standards	NI	N/A	N/A

RESOURCE	SPECIALIST	DRAFT EA REVIEW INITIAL/DATE	FINAL DOCUMENTATION REVIEW INITIAL/DATE
Recreation	NI	N/A	N/A
Socio-Economics	NI	N/A	N/A
Soils	Mitch Bayles	6/21/2016	MB
Special Status Plant Species	NI	N/A	N/A
Special Status Animal Species	Sheri Whitfield	06/15/2016	SW
Wastes (hazardous or solid)	NI	N/A	N/A
Water Resources/Quality (drinking/surface/ground)	NI	N/A	N/A
Wetlands/Riparian Zones	NP	N/A	N/A
Wild and Scenic Rivers	NP	N/A	N/A
Wilderness/WSA	NP	N/A	N/A
Woodland / Forestry	NP	N/A	N/A
Vegetation	Mitch Bayles	6/21/2016	MB
Visual Resources	NI	N/A	N/A
Wild Horses and Burros	NP	N/A	N/A
Lands with Wilderness Characteristics	NP	N/A	N/A

FINAL REVIEW:

REVIEWER TITLE AND NAME	DRAFT REVIEW INITIAL/DATE	FINAL REVIEW INITIAL/DATE
Environmental Coordinator:		<i>Julia Hernandez</i>
Authorized Officer:	→→→→→→→→→→→→	<i>John P. Am...</i>

INTERDISCIPLINARY TEAM NEPA CHECKLIST

Project Title: CELLULAR INC. FIBER LINE AND ROAD RIGHT-OF-WAY

NEPA Log Number: DOI-BLM-UT-C010-2015-0055-EA

File/Serial Number: UTU-91277

Project Leader: Michelle Campeau (435) 865-3047

DETERMINATION OF STAFF: *(Choose one of the following abbreviated options for the left column)*

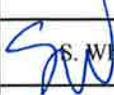
NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

The rationale column should include NI and NP discussions.

RESOURCES AND ISSUES CONSIDERED:

Determination	Resource	Rationale for Determination	Signature	Date
NI	Air Quality	Air quality would not be expected to be degraded from the proposed project. During construction, there may be a temporary increase in airborne dust and exhaust from construction practices, though long-term impacts are unlikely.	A. Stephens 	7/21/2012
NP	Areas of Critical Environmental Concern	There are no ACECs within the Cedar City Field Office	Dave Jacobson 	7-22-2015
PI/NI Changed to NI	Cultural Resources	A cultural resource records search shows that no cultural resources surveys have been conducted along the proposed project area. A Class III inventory for the proposed project area is required to ascertain if any historic properties would be adversely affected by the proposed project. Once a Class III inventory is conducted, any historic properties located will be avoided during the road/fiber line installation, if avoided this determination will be changed to a NI.	 Jamie Palmer	7/29/2015
NI	Greenhouse Gas Emissions	Greenhouse Gas Emissions would not be expected to be increased from the proposed project. During construction, there may be a temporary increase in exhaust emissions from construction practices, though long-term impacts are unlikely.	A. Stephens 	7/21/2012
NI	Environmental Justice	No minority or economically disadvantaged groups would be unduly affected by the proposed action.	M. Campeau 	07/17/15
NP	Farmlands (Prime or Unique)	There are no farmlands present that would be expected to be influenced by the proposed project.	A. Stephens 	7/21/2012
NI	Fish and Wildlife	The area is not identified as big game range.	 S. Whitfield	07/20/15
NP	Floodplains	There are no floodplains associated with the proposed project.	A. Stephens 	7/21/2012

NI	Fuels/Fire Management	There would be no impact to fire/fuels management. Since there is cheatgrass at the site of the proposed project, care should be taken to prevent fires during construction.	M. Mendenhall <i>MM</i>	7/21/2015
NI	Geology / Mineral Resources/Energy Production	There are no known mineral resources in the project lands, other than surficial deposits of common variety sand and gravel. There are no current or proposed minerals related authorizations coincident in the project area. The proposed action would not substantially impact any mineral resources they may be present.	E. Ginouves <i>EG</i>	7/17/15
NI	Hydrologic Conditions	The proposed project could slightly modify surface flows and slow infiltration were new disturbance occurs, but would not be expected to impact hydrologic conditions or functionality in the watershed.	A. Stephens <i>AS</i>	7/21/2012
PI Changed to NI	Invasive Species/Noxious Weeds	As long as noxious weed stipulations are adhered change from a PI to a NI if the proponent monitors for noxious weeds by hand treating or avoiding as needed if within the working area of the project, there would be no impacts from this proposal. Proponent would also be responsible for Noxious weed removal within the ROW, need to have a certified sprayer and provide a pesticide use report and submit and get a pesticide use proposal approved and signed with BLM prior to treating with chemical. Noxious weed infestations are spread in part by the movement of vehicles, humans, animals, including livestock, by the transport of seed through physical contact and/or ingestion. The small, isolated noxious weed infestations should eventually be reduced in the future with the continuation of the noxious weed program which was implemented by the Cedar City Field Office. The Cedar City Field Office currently has an aggressive noxious weed control program and annually removes large quantities of noxious weeds throughout BLM administered lands in both Iron and Beaver counties. The BLM coordinates with County, State and Federal agencies in order to locate, treat and monitor noxious weed infestations throughout both counties.	J. Bulloch <i>JB</i>	7/20/15
NI	Lands/Access	Proposal would not impact other existing uses in the project area. Proposed road is on an existing dirt road, just off the highway-21 near Minersville that would need to be bladed and maintained to 20' wide, as proposed. Access to this road starts on private lands, which is accessed regularly by the public, then changes to BLM public lands and ends on private lands. The proposed fiber line would start about halfway up the proposed road ROW and run Northwest of the proposed road. No other access issues have been identified or are anticipated.	M. Campeau <i>MC</i>	07/17/15
NI	Livestock Grazing	The Proposed action is not expected to impact Livestock grazing in the Minersville 2 Allotment.	J. Reese <i>JR</i>	07/23/15
NI	Migratory Birds	Construction is not anticipated to occur during the 2015 nesting season (April 1 – July 30).	S. Whitfield <i>SW</i>	07/20/15

NI	Native American Religious Concerns	On July 22, 2015, face-to-face consultation took place between the Paiute Indian Tribe of Utah (PITU) and the BLM-Cedar City Field Office. The PITU have reviewed the project and have no objection to the project moving forward. The PITU would like to be informed of any changes or updates to the project.	Jamie Palmer	7/22/2015
NI	Paleontology	The surficial geology of the project area is recent alluvium and colluvium derived from weathered Tertiary-age volcanics. Using the Bureau's Potential Fossil Yield Classification System, the surface formation would fall with Class 2, low potential for fossil resources. The potential for impact to fossil resources is therefore low and no pre-disturbance fossil surveys are necessary.	E. Ginouves	7/17/15
NI	Rangeland Health Standards	Rangeland Health Standards are not expected to be significantly due to the small scale of disturbance associated with the proposed action.	J. Reese	7/23/15
NI	Recreation	The proposed project would not impact the recreational opportunities in the area. Current recreation use of the area is mostly motorized travel up the existing routes that the project will follow.	Dave Jacobson	7-22-2015
NI	Socio-Economics	The project will not have a negative impact to the communities economy	M. Campeau	07/17/15
PI	Soils	See Vegetation	J. Reese	07/23/15
NI	Special Status Plant Species	There are no known Special Status Plant Species in the proposed action area.	J. Reese	07/23/15
PI	Special Status Animal Species	The area is mapped as UDWR sage-grouse occupied habitat. Surveys for special status species would be required prior to any ground disturbing activities.	Whitfield	07/20/15
NI	Wastes (hazardous or solid)	There are no known hazardous or solid wastes that would be created with the activities being conducted. Fuel spills/leaks from the equipment or vehicles being used would be minimal if an incident occurred. Company will follow local, state, and federal mitigation procedures if an incident of significant impact occurs.	Glenn Pepper	7/31/15
NI	Water Resources/Quality (drinking/surface/ground)	There are no drinking water or surface water resources associated with the proposed project. Impacts to ground water from the proposed project are highly unlikely.	A. Stephens	7/21/2012
NP	Wetlands/Riparian Zones	There are no wetlands or riparian zones associated with the proposed fiber line and ROW.	A. Stephens	7/21/2012
NP	Wild and Scenic Rivers	The Cedar City Field Office does not have any designated wild and scenic rivers. The project is also not immediately adjacent to any rivers or streams.	Dave Jacobson	7-22-2015
NP	Wilderness/WSA	The project is not within or near any wilderness or wilderness study areas.	Dave Jacobson	7-22-2015
NP	Woodland / Forestry	No Woodland / Forestry. Vegetation present, sage/grass/forb.	C. Peterson	7/20/2015
PI	Vegetation	Disturbed area should be reseeded following the implementation of the proposed action. The seed mix would be in accordance to the reclamation plan that would be provided.	J. Reese	7/23/15
NI	Visual Resources	The proposed project in with VRM class IV and will meet the objectives of that class.	Dave Jacobson	7-22-2015

NP	Wild Horses and Burros	Project is not within or adjacent to any Wild Horse HMAs or HAs.	C. Hunter <i>mcg</i>	7/21/2015
NP	Lands with Wilderness Characteristics	The proposed project is not in an area that was identified as having wilderness characteristics in the 2011 and updated 2014 wilderness characteristics inventory.	Dave Jacobson <i>JK</i>	7-22-2015

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator	<i>Maria Hernandez</i>	8/8/16	
Authorized Officer	<i>James D. ...</i>	8/8/16	

APPENDIX C
SITE PHOTOGRAPHS



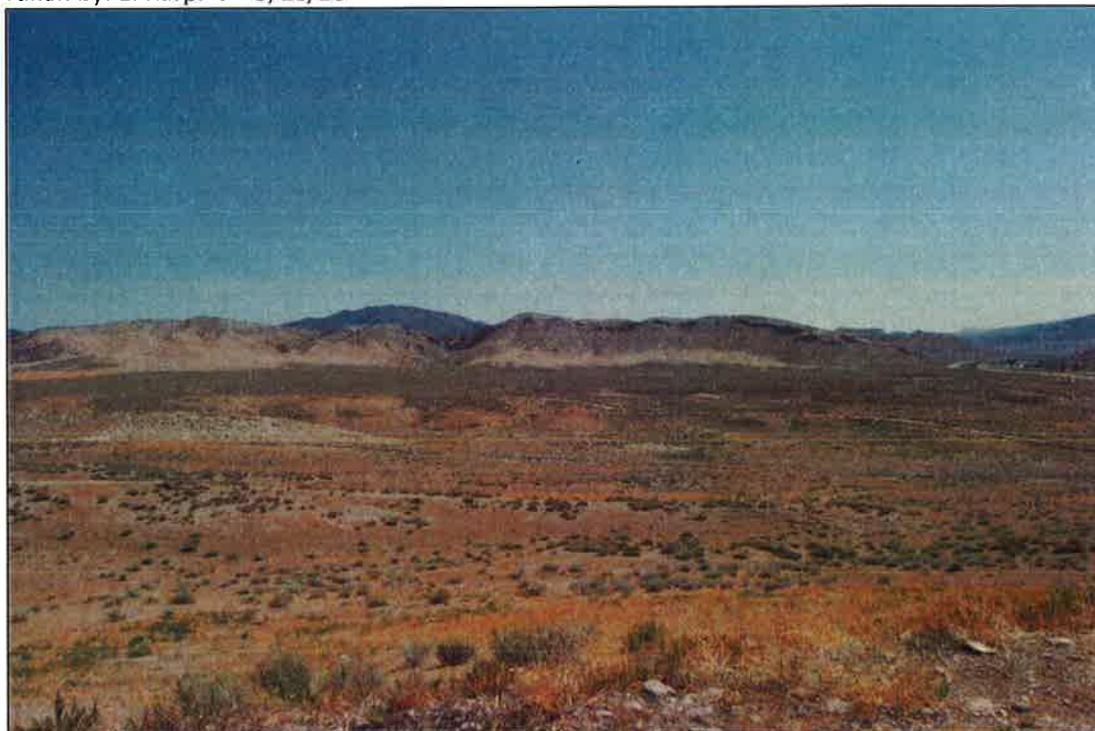
State Project No.: U15TD0419bps
Photo No: 103IP2712424:185
Description: Overview of access easement from SR-21
Facing: N
Taken by: E. Karpinski 9/10/2015



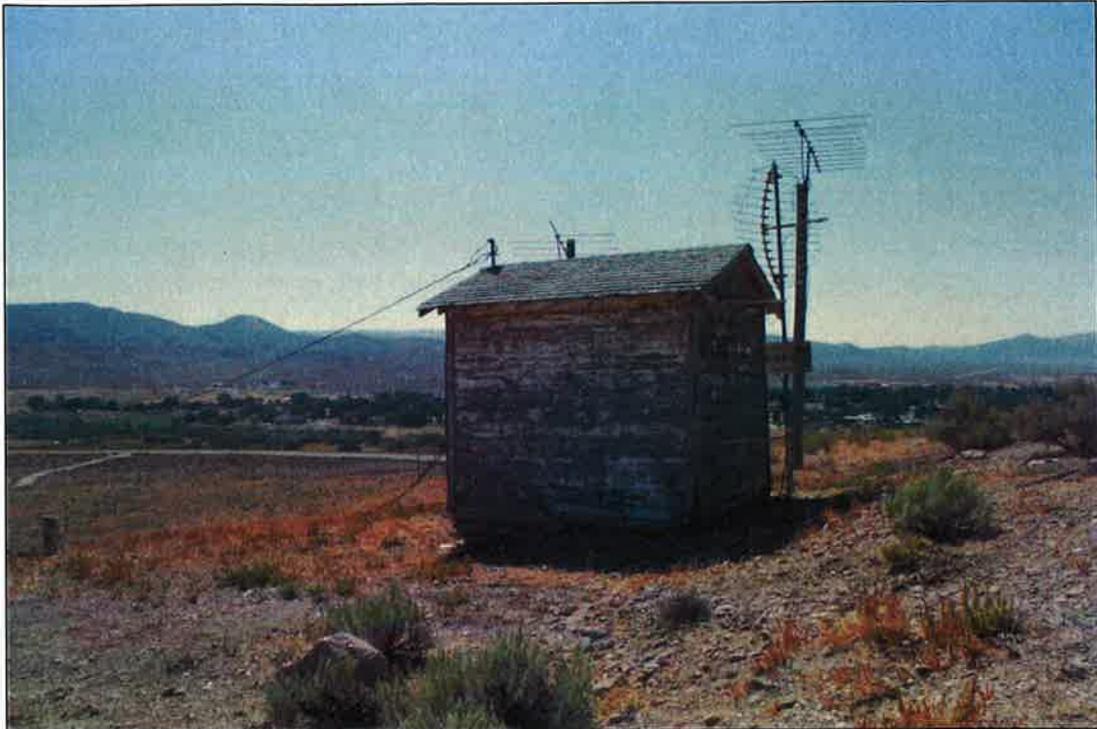
State Project No.: U15TD0419bps
Photo No: 103IP2712424:187
Description: Overview of utility easement from access easement
Facing: W
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:189
Description: View from tower location
Facing: N
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:190
Description: View from tower location
Facing: E
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:191
Description: View from tower location
Facing: S
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:192
Description: View from tower location
Facing: W
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:193
Description: Overview of tower location
Facing: SSE
Taken by: E. Karpinski 9/10/2015



State Project No.: U15TD0419bps
Photo No: 103IP2712424:194
Description: Overview of utility easement from tower location
Facing: SE
Taken by: E. Karpinski 9/10/2015

APPENDIX D
CULTURAL RESOURCE ASSESSMENT



Summary Report of Cultural Resources Inspection

State Proj. No: U15TD0688b

1. Report Title: A Class III Cultural Resource Inventory of 889 Feet of Utility Corridor and 2,001 Feet of Access Road for Verizon Wireless's UT4 Minersville Cellular Tower Project, Beaver County, Utah

2. Report Date: October 13, 2015

3. Date(s) of Survey: September 10, 2015

4. Development Company: Verizon Wireless

5. Responsible Institution: Tetra Tech

6. Responsible Individuals

Principal Investigator: Mark Karpinski

Field Supervisor: Elizabeth Karpinski

Report Author(s): Elizabeth Karpinski and Mark Karpinski

7. BLM Field Office: Cedar City

8. County(ies): Beaver

9. Fieldwork Location:

USGS map: Minersville, Utah (1976)

Twn: 30S Range: 10W Section: 1 and 12

Twn: Range: Section:

10. Record Search: Utah State Historic Preservation Office

Date of Record Search: June 9, 2015 and August 8, 2015

11. Description of Proposed Project:

Verizon Wireless, Inc. (Verizon) is planning to construct a cellular tower and associated facilities just north of Minersville, Utah. The proposed tower is located on land owned by the town of Minersville; however, to access the location Verizon wants to use—and upgrade—portions of the an existing access road as well as bore a new and separate utility line to the tower; which are both partially located on BLM-CCFO-administered land.

Access efforts, road upgrades, and utility line installation may inadvertently affect cultural resources of BLM administered lands; therefore, Verizon is required to conduct a cultural resource inventory under Title 54 U.S.C § 306108 for BLM administered lands prior to proceeding with the project.

12. Description of Examination Procedures: The inventory was accomplished using pedestrian transects spaced no further than 15 m (50 feet) apart.

13. Area Surveyed:

		BLM	OTHER FED	STATE	PRIVATE
Linear Miles	Intensive:				

	Recon/Intuitive				
Acreage	Intensive:	1.2			
	Recon/Intuitive				

14. Sites Recorded:

		BLM		STATE		PRIVATE	
		#	Smithsonian Site Numbers	#	Smithsonian Site Numbers	#	Smithsonian Site Numbers
Revisits (no IMACS form)	NR Eligible	0					
	Not Eligible	0					
Revisits (updated IMACS)	NR Eligible	0					
	Not Eligible	0					
New Recordings (IMACS)	NR Eligible	0					
	Not Eligible	1	42BE4518				

Total Number of Archeological Sites: 1
 Historic Structures (USHS Form):0
 Total National Register Eligible Sites: 0

15. Description of Findings:

The Class III Cultural Resource Inventory of the 889 feet of access road and 2,001 feet of utility corridor located on BLM-administered land for Verizon's UT4 Minersville cellular tower identified one newly recorded site (Site 42BE4518). Site 42BE4518 is a historic trash dump area that is recommended not eligible for listing on the National Register of Historic Places (NRHP) under any potential criteria. Proposed construction activities will not adversely affect the site and no management measures are recommended.

16. Collection Yes ___ No X (If Yes) Curation Facility:
 Accession Number(s):

17. Conclusion/Recommendations:

The inventory areas are located along the southeastern facing slope and into the Beaver River floodplain. The sediments in the area are colluvial and residual in nature with a low potential for subsurface cultural resources.

The current project will have no adverse impact on cultural resources and no further work is required. If any undocumented sites are discovered during upgrade work, all work in the vicinity of the resource should be stopped and the BLM-CCFO Field Office Manager ((435) 865-3006) should be contacted immediately.



Case No.

15TD0688b
State Project No.

Report Title: A Class III Cultural Resource Inventory of 889 Feet of Utility Corridor and 2,001 Feet of Access Road for Verizon Wireless's UT4 Minersville Cellular Tower Project, Beaver County, Utah
State Project No.: 15TD0688b Organization Project No.: 103IP2712424
Report Date: October 13, 2015 County(ies): Beaver
Report Author(s): Elizabeth Karpinski and Mark Karpinski
Principal Investigator: Mark Karpinski Field Supervisor(s): Elizabeth Karpinski
Records search date(s): June 9 and August 8, 2015 Preservation Pro Used? Yes No
Acres Surveyed: Intensive (<=15 m intervals): 1.2 Recon/Intuitive (>15 m intervals):
USGS 7.5' Series Minersville, UT (1976)
Map Reference(s):

Table with 3 columns: SITES REPORTED, COUNT, SMITHSONIAN SITE NUMBERS. Rows include Revisits, Updates, New recordings, Total Count of Archaeological Sites in APE, Historic Structures, and Total National Register Eligible Sites.

- CHECKLIST OF REQUIRED ITEMS FOR SUBMITTAL TO SHPO
1. [X] Copy of the final report
2. [X] Copy of USGS 7.5' Series basemap with investigated area clearly identified
3. [X] Completed site forms
[X] IMACS Encoding Form
[X] Site Sketch Map
[X] Photographs adhering to UDSH standards
[X] Copy of USGS 7.5' Series basemap with site location and Smithsonian site number clearly labeled
4. [X] CD of digital report and site documents, including shapefiles (optional)
5. [X] Completed "Cover Page" accompanying final report and form

For UDSH office use only



**A Class III Cultural Resource Inventory of
889 Feet of Utility Corridor and 2,001 Feet
of Access Road for Verizon Wireless's UT4
Minersville Cellular Tower Project, Beaver
County, Utah**

Utah State Project Number: U15TD0688b

Prepared for:

Verizon Wireless, Inc.

*6 Campus Circle, Suite 500
Westlake, TX 76272*

Prepared by:

Elizabeth Karpinski and Mark Karpinski, MA

Tetra Tech, Inc.

*4750 West 2100 South, Suite 400
Salt Lake City, Utah 84120
(801) 364-1064
Fax (801) 364-2021*

Tetra Tech Project No. 103IP2712424

October 13, 2015

Project Title:	A Class III Cultural Resource Inventory of 889 Feet of Utility Corridor and 2,001 Feet of Access Road for Verizon Wireless's UT4 Minersville Cellular Tower Project, Beaver County, Utah		
Agency(-ies):	Bureau of Land Management, Cedar City Field Office (BLM-CCFO)		
Utah State Number:	U15TD0688b		
Tetra Tech No.:	103IP2712424		
Description:	<p>Verizon Wireless, Inc. (Verizon) is planning to construct a cellular tower and associated facilities just north of Minersville, Utah. The proposed tower is located on land owned by the town of Minersville; however, to access the location Verizon wants to use—and upgrade—portions of an existing access road as well as bore a new and separate utility line to the tower; which are both partially located on BLM-CCFO-administered land.</p> <p>Access efforts, road upgrades, and utility line installation may inadvertently affect cultural resources of BLM administered lands; therefore, Verizon is required to conduct a cultural resource inventory under Title 54 U.S.C. § 306108 for BLM administered lands prior to proceeding with the project.</p>		
Location:	The inventory area is located within a portion of Sections 1 and 12, T30S, R10W, Salt Lake City Meridian, (7.5' USGS quadrangle Minersville, Utah (1976)).		
Acreage:	1.2 acres (15 meter transect intervals)		
Landownership:	BLM		
Results	Identified Sites	1	Isolated Occurrences 0
Eligible Sites	None		
Not Eligible Sites	42BE4518		
ABSTRACT			
<p>The Class III Cultural Resource Inventory of the 889 feet of access road and 2,001 feet of utility corridor located on BLM-administered land for Verizon's UT4 Minersville cellular tower identified one newly recorded site (Site 42BE4518). Site 42BE4518 is a historic trash dump area that is recommended not eligible for listing on the National Register of Historic Places (NRHP) under any potential criteria. Proposed construction activities will not adversely affect the site and no management measures are recommended.</p> <p>The inventory areas are located along the southeastern facing slope and into the Beaver River floodplain. The sediments in the area are colluvial and residual in nature with a low potential for subsurface cultural resources.</p> <p>The current project will have no adverse impact on cultural resources and no further work is required. If any undocumented sites are discovered during upgrade work, all work in the vicinity of the resource should be stopped and the BLM-CCFO Field Office Manager ((435) 865-3006) should be contacted immediately.</p>			

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LIST OF APPENDICES

Appendix A IMACS Site Form

1.0 INTRODUCTION

Verizon Wireless, Inc. (Verizon) is planning to construct a cellular tower and associated facilities just north of Minersville, Utah. The proposed tower is located on land owned by the town of Minersville; however, to access the location, Verizon wants to use—and upgrade—portions of an existing access road as well as bore a separate new utility line to the tower; which are both located partially on Bureau of Land Management-Cedar City Field Office (BLM-CCFO)-administered land.

Access efforts, road upgrades, and utility line installation may inadvertently affect cultural resources on BLM administered lands; therefore, Verizon is required to conduct a cultural resource inventory under Title 54 U.S.C. § 306108 prior to proceeding with the project.

The portion of the access road on BLM-CCFO-administered land is 20 feet wide by 2,001 long. The utility corridor on BLM-CCFO-administered land is 15 feet wide by 889 long. The inventoried area for the access road and utility corridor on BLM-CCFO-administered land is approximately 1.2 acres.

1.1 Project Location

The project is situated in Beaver County, Utah near the community of Minersville. The project is within a portion of Sections 1 and 12, T30S, R10W, Salt Lake City Meridian, (7.5' USGS quadrangle Minersville, Utah (1976)). (Figure 1).

1.2 Physical Setting

The project is located within the eastern portion of the Tonoquints Volcanic Section of the Basin and Range-Colorado Plateau Transition physiographic province (Stokes 1986). The region is characterized by complex, related extrusive volcanic geology with diverse topography and geologic features. The Project is at an elevation of 5,469 feet (ft) [1,667 meters (m)] above mean sea level (AMSL) (NAVD88). The Project is situated on top of a southwest trending finger ridge and along the southeast facing slope overlooking the Beaver River floodplain (Figures 2 and 3). Sediments are residual/colluvial sand loam with moderate pebble to boulder size gravels.

Climatically, the region is classified as a cold desert with average temperatures ranging from 5 to 95 degrees Fahrenheit with an annual average yearly precipitation of 15 inches (Harper 1986). Vegetation in the inventory area includes sparse sagebrush, rabbitbrush, prickly pear cactus, and various bunchgrasses and forbs. The area is habitat for a wide variety of animal species; including large sized through small sized mammals. A wide variety of birds also inhabit the area. The Beaver River is the nearest perennial stream and is located to the south of the inventory area.

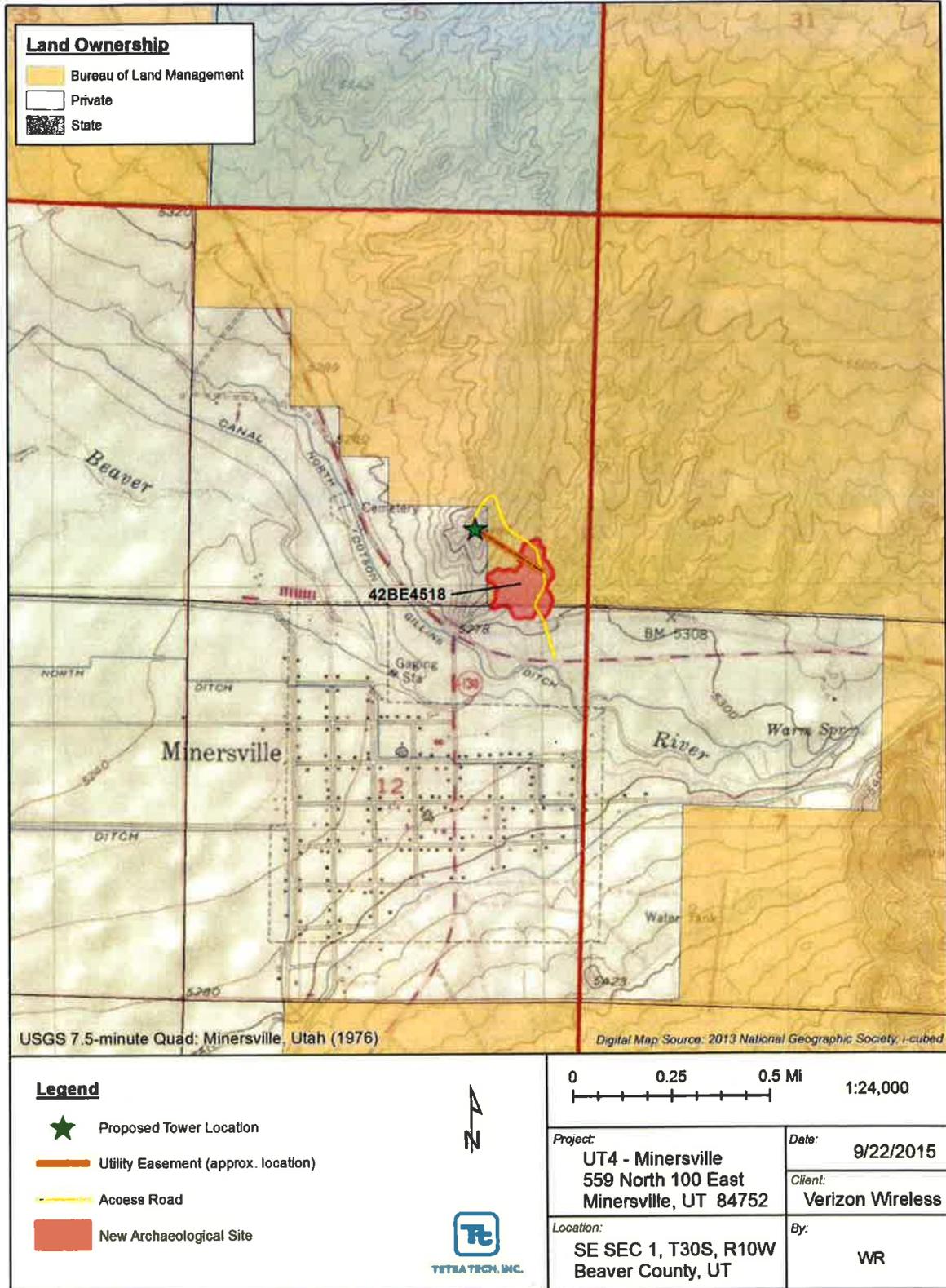


Figure 1. Project Area.

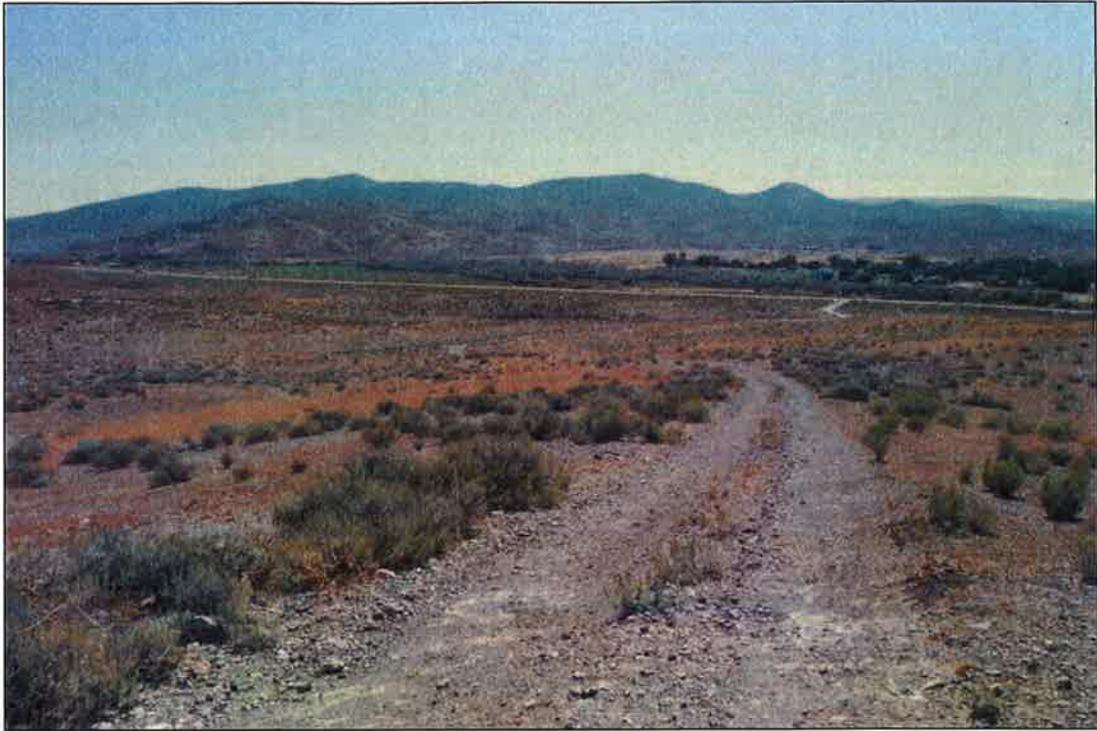


Figure 2. Overview of BLM portion of access road, facing south-southeast.



Figure 3. Overview of utility corridor, facing west-northwest.

2.0 BACKGROUND

Prior to field work, a literature search was conducted on June 9 and August 8, 2015 for the inventory area which included the proposed access road and utility corridor along with a surrounding one-mile radius. The cultural records were reviewed through the Utah State Historic Preservation Office (SHPO) Preservation Pro online database. The review identified 14 cultural resource inventories that have been previously completed within the literature search area (Table 1). The inventories were completed as part of road improvements, geothermal, various sales, fire rehabilitation, and various utility transmission line projects.

Table 1. Previously Completed Inventories

Utah State Project Number	Project Name	Within/Outside Inventory
U79BL0044	Gillins Ag. Trespass	Outside
U79SE0494	Survey of 55 Drill Sites for Geothermal Services	Outside
U81SE1043	Minersville Telephone Line	Outside
U83BL0091	Thurman Eyre Sale	Outside
U92NP0010	Mt. Fuel, Milford to Beaver	Outside
U94BL0474	Dotson Clay Sale	Outside
U97JB0281	M&M Road	Outside
U97JB0509	SR-21 to the M and M Road Turn Lane	Outside
U98UT0098	UDOT Intersection of SR-21 and SR-130	Outside
U00BL0403	Minersville Water Tank and Pipeline	Outside
U05EL0206	Minersville to Beaver Fiber Optic Line	Outside
U10BL0127	Beaver River Non-Project Inventory	Outside
U11BL0005	Minersville City Waterline	Outside
U11MQ0911	CRI of Utah Division of Wildlife Resources' Yellow Mountain/Wangler ESR	Outside

The previously completed inventories identified nine sites within the current literature search area (Sites 42BE55, 42BE1572, 42BE1573, 42BE1586.2, 42BE1704–42BE1707, and 42BE3741) (Table 2). A majority of the sites are associated with the historic period and include two water control systems (Sites 42BE1572 and 42BE1573), two historic roads (Sites 42BE1586.2 and 42BE3741), and four historic trash dumps (Sites 42BE1704–42BE1707). Two of the historic trash dumps (Sites 42BE1704 and 42BE1705) also contain prehistoric lithic scatters. One site (Site 42BE55) is a prehistoric lithic scatter. Six of the sites (Site 42BE1586.2, 42BE1704–42BE1707, and 42BE3741) are not eligible for listing on the National Register of Historic Places (NRHP). The remaining three sites (Sites 42BE55, 42BE1572, and 42BE1573) have not been evaluated for listing on the NRHP. All of the sites are located outside of the current inventory area located on BLM administered lands.

Table 2. Previously Recorded Archaeological Sites

Site Number	Site Type ^a	Legal Location	NRHP Eligibility
42BE55	P-Lithic Scatter	Section 9 of T30S, R9W	Undetermined
42BE1572	H-Dotson/Gillins Ditch	Sections 1 and 12, T30S, R10W	Undetermined
42BE1573	H-Lowline Canal	Sections 1 and 12, T30S, R10W	Undetermined
42BE1586.2	H-Old Route 21	Section 12, T30S, R10W and Section 7, T30S, R9W	Not eligible
42BE1704	M/C-Prehistoric lithic scatter and historic trash dump	Section 12, T30S, R10W	Not eligible
42BE1705	M/C-Prehistoric lithic scatter and historic trash dump	Section 12, T30S, R10W	Not eligible

42BE1706	H-Trash dump	Section 1, T30S, R10W	Not eligible
42BE1707	H-Trash dump	Section 1, T30S, R10W	Not eligible
42BE3741	H-Road to Minersville	Section 7, T30S, R9W	Not eligible

Notes: ^a P-prehistoric, H-historic, and M/C-multicomponent.

The available historic General Land Office (GLO) maps were reviewed through the Utah Bureau of Land Management (BLM) cadastral survey online database (http://www.ut.blm.gov/LandRecords/Land_Records.html). The maps can depict unrecorded historic-era features located within or near the inventory area. The GLO maps for T30S, R10W (filed on May 17, 1870 and April 26, 1913) had "Road from Milford to Beaver" located in Section 12, which corresponds to previously recorded Site 42BE1586.2. The site is not located within the current inventory area.

3.0 METHODOLOGY

Tetra Tech Inc. (Tetra Tech) conducted the Class III cultural resource inventory for the project on September 10, 2015. Mark Karpinski, M.A. served as Principal Investigator (PLPCO Permit #86) and Elizabeth Karpinski, B.A. served as the field archaeologist conducting all field work. The inventory was completed during good weather conditions.

The Class III inventory was accomplished using pedestrian transects spaced no further than 15 meters (50 feet) apart. Each transect was oriented along the access road and utility corridor of the proposed Project. Trimble Global Positioning System (GPS) units with real time differential correction had the inventory parcel boundaries uploaded prior to field work. The data allows for accurate location of the inventory area. Positional accuracy was within 3 meters and the Position Dilution of Precision (PDOP) were less than or equal to six. Collected data was organized per the current Utah cultural resource data dictionary. UTM coordinates were recorded in NAD83, Zone 12 North. All photographs, GIS, and digital data were collected to conform to the BLM Cultural Resource Standards (BLM 2012). Photographs were taken using a digital camera with at least a 7 megapixel resolution. Project photographic logs were maintained and recorded the date, camera, exposure number, subject, and orientation for each photograph.

Cultural resources (if encountered) were documented per Utah BLM standards (BLM 2012). Sites were defined as a minimum of ten artifacts within a 10 meter (32 feet) diameter area and/or one or more archaeological features with a sufficient potential to yield important information. All non-linear cultural resources not meeting this definition were recorded as isolated occurrences (IOs). Linear cultural resources were handled according to the Utah Professional Archaeological Council's Linear Guidelines (Utah Professional Archaeological Council 2008).

Site recording included, at minimum, a written description, overview photographs, diagnostic/unique artifact photographs, and GPS planview mapping. A datum was not established during the Project. Three site overview photographs were taken and a GPS location was recorded for each photograph point. Attempts were made to include reference points and major landscape features in the overview photographs. Artifact and feature photographs included a photographic scale and larger feature photographs utilized a scaled north arrow oriented to magnetic north. GPS-based planview maps included the datum, diagnostic artifacts, formal tools, features, photographic overview points, significant topographic features, and a site boundary. Boundaries were based off the distribution of the surface cultural material, high probability depositional areas, and/or features with a 15 m (50 feet) buffer from last observed cultural evidence.

Each encountered site was evaluated for its potential inclusion on the NRHP. IOs are considered to be cultural manifestations of limited information potential and are not eligible for the NRHP. IOs do not require further research or management beyond recordation. In addition to assessing for NRHP elements of integrity (Location, Design, Setting, Materials, Workmanship, Feeling, and Association), each locality was evaluated based on one or more of the following criteria:

- A)** associated with events that have made a significant contribution to the broad patterns of national, state, or local history;
- B)** associated with the lives of persons who have made a significant contribution to national, state, or local history;
- C)** embodies the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or represents a significant and distinguishable entity whose components may lack individual distinction.
- D)** may be likely to yield information important in the prehistory or history of the nation, state or region.

4.0 INVENTORY RESULTS

The Class III Cultural Resource Inventory of the access road and utility corridor located on BLM-CCFO-administered land for the UT4 Minersville cellular tower project resulted in the recordation of one newly recorded site (Site 42BE4518). Site 42BE4518 is a historic trash dump that is recommended not eligible for listing on the NRHP under any potential criteria.

4.1 Newly Recorded Sites

42BE4518 – Historic Trash Dump, Not Eligible

Site 42BE4518 is a large, diffuse, generalized, historic trash dumping area located along the southeastern slope of a southwest trending ridge, just north of the Beaver River floodplain. Sediments are residual/colluvial sand loam with moderate pebble to boulder size gravels. Vegetation is sparse sagebrush and various grasses. Ground coverage is 25 percent. The majority of the artifacts are highly fragmented and only a few artifacts with maker's marks were noted, suggesting the site has been heavily looted/vandalized. Other impacts include erosion and two roads that cross the site; one north to south and one east to west along the southern boundary. Overall, it retains poor integrity.

The site is a diffuse scatter of cans, glass, ceramics, and other artifacts including bicycle rims, boot/shoe soles, lumber, and wire dating to both the historical and modern eras. No spatial organization structure, or planning is apparent and distributions appear entirely random. The scatter is likely the result of several, unrelated, secondary depositional episodes related to either travel along Highway 21 or the residence of Minersville disposing of residential trash. The can assemblage includes approximately 100 hole-in-top cans, 200 sanitary cans, and ten paint cans. All the cans were crushed to some degree. The glass assemblage includes approximately 1,000 fragments of clear glass, 200 fragments of brown glass, 200 fragments of sun-colored amethyst (SCA) glass, 50 fragments of cobalt blue glass, 100 fragments of aqua glass, and 50 fragments of milk glass. Two Kerr Glass Mfg Co clear glass bottle bases and one clear glass graduated medicine bottle measuring 6 ¼ by 2 ¼ by 1 ½ inches with an Owens-Illinois maker's mark were also noted. The ceramic assemblage includes approximately ten fragments of porcelain, 20 fragments of white ware, and 30 fragments of crockery. A body fragment of crockery, likely from a crock, with "Macomb, Ill" painted on the exterior (Figure 4) and a fragment of porcelain with a blue transfer print was also noted. Other artifacts noted are a bike tire rim, ten boot/shoe soles, an enamelware plate with a blue/white design, a metal colander, and a single size metal headboard.

Diagnostic material relatively dates the site from 1889 to the present. The "Macomb, Ill" crockery fragment was made by Macomb Stoneware Company which manufactured utilitarian stoneware pieces including jugs, crocks, and mugs. The company started in 1889, and along with six other companies, merged into Western Stoneware Pottery in 1906. The plant burned in 1913 and was not rebuilt (Lehner 1988). Such crockery tended to be highly curated during the historic era with its use life extending well beyond manufacturing windows. Its presence at the site may not accurately reflect the time of deposition. The Kerr Glass Mfg Co maker's mark has been used from 1912 to present (Toulouse 1971). The Owens-Illinois mark dates from 1929 to 1954 (Toulouse 1971). Generally, hole-in-top cans and sanitary cans become common after 1904 (Rock 1981). Temporally diagnostic artifacts were identified throughout the site with no discrete temporally or functionally bound dumping sites/areas noted.



Figure 4. Site 42BE4518, “Macomb, Ill” crockery fragment.

NRHP Recommendation

Site 42BE4518 is recommended as **not eligible** for inclusion on the NRHP under any potential criteria. Although artifacts at the site range in relative age from 1889 to the present; no discernable temporally or functionally bound concentrations, structure, or planning are present. The site is likely a series unrelated secondary dumping events along the Highway 21 corridor and immediately norther of the town of Minersville. The site is likely the result of Minersville residence dumping residential debris throughout at least the 20th century. The site could not be associated with a specific historic event or person; therefore, the site is not eligible for listing under Criteria A or B. No architecture or unique features are present at the site; therefore it is not eligible for listing under Criterion C. The site is in poor condition with most of the artifacts highly fragmented and the site is still being used as a dump, as evidenced by the modern debris throughout. The surface artifact scatter is common for the historic period with no indication of any potential subsurface cultural components. No discrete dumping sites/areas were noted and temporally diagnostic artifacts were limited in number and diffuse across the site. Additionally, observed diagnostic items like crockery tend to be highly curated goods used and cared for well beyond manufacture windows; therefore may not accurately reflect the temporal range of site use. The site does not have the potential to provide significant important information that will further our understanding of the area's history. The site is not eligible under Criterion D.

5.0 RESULTS AND MANAGEMENT RECOMMENDATIONS

The Class III Cultural Resource Inventory of the 2,001 feet of access road and 889 feet of utility corridor located on BLM-administered land for Verizon's UT4 Minersville cellular tower identified one newly recorded site (Site 42BE4518). Site 42BE4518 is a historic trash dump area that is recommended **not eligible** for listing on the NRHP under any potential criteria. Proposed construction activities will not adversely affect the site and no management measures are recommended.

The inventory areas are located along the southeastern facing slope of an unnamed ridge and extend onto the margin of Beaver River floodplain. The sediments in the area are colluvial and residual in nature with a low potential for subsurface cultural resources.

The current project will have no adverse impact on cultural resources and no further work is required. If any undocumented sites are discovered during upgrade work, all work in the vicinity of the resource should be stopped and the BLM-CCFO Field Manager ((435) 865-3006) should be contacted immediately.

6.0 REFERENCES

Bureau of Land Management

2012 Utah Bureau of Land Management Digital Data Standards. Copies Available through the Utah Bureau of Land Management.

Harper, Kimball T.

1986 Historical Environments. In *Handbook of North American Indians*, Volume 11: Great Basin, edited by Warren d'Azevedo, pp. 51-63. Smithsonian Institution, Washington, D.C.

Lehner, Lois

1988 *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay*. Collector Books, Paducah, Kentucky.

Rock, James T.

1981 *Tin Cans, Notes and Comments*. USDA, Klamath National Forest, Yreka, California.

Stokes, William Lee

1986 *Geology of Utah*. Occasional Paper No. 6, Utah Museum of Natural History. Salt Lake City, Utah.

Toulouse, Julian Harrison

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

Utah Professional Archaeological Council

2008 *Linear Sites: Guidance for Identifying and Recording under Section 106 of the National Historic Preservation Act*. Copies Available through the Utah Professional Archaeological Council.

**APPENDIX A
IMACS SITE FORM**

IMACS SITE FORM

Part A - Administrative Data

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM
Form approved for use by
BLM - Utah, Idaho, Wyoming, Nevada
Division of State History - Utah, Wyoming
USFS - Intermountain Region
NPS - Utah, Wyoming

*1. State No: 42BE004518
*2. Agency No: _____
*3. Temp. No: _____

4. State Utah County: Beaver

5. Project A Class III Cultural Resource Inventory of UT4 Minersville Cellular Tower Project

*6. Report No. U15TD0688b

*7. Site Name / Property Name _____

8. Class Prehistoric Historic Paleontologic Ethnographic

9. Site Type Historic Artifact Scatter

*10. Elevation 5,314 ft.

*11. UTM Grid 12 331908 m E 4232106 m N

*12. SE of SE of SE of Section 1 T. 30 S R. 10 W

NE of NE of NE of Section 12 T. 30 S R. 10 W

*13. Meridian Salt Lake City

*14. Map Reference Minersville, Utah (1976)
Minersville, Utah (1976)

15. Aerial Photo None

16. Location and Access

Site is a diffuse historic artifact scatter crossing a south facing slope immediately north of State Highway 21 and Minersville, Utah.

*17. Land Owner Bureau of Land Management

*18. Federal Administrative Units Cedar City

*19. Location of Curated Materials None

20. Description

Site 42BE4518 is a large, diffuse, generalized, historic trash dumping area located along the southeastern slope of a southwest trending ridge, just north of the Beaver River floodplain. Sediments are residual/colluvial sand loam with moderate pebble to boulder size gravels. Vegetation is sparse sagebrush and various grasses. Ground coverage is 25 percent. The majority of the artifacts are highly fragmented and only a few artifacts with maker's marks were noted, suggesting the site has been heavily looted/vandalized. Other impacts include erosion and two roads that cross the site; one north to south and one east to west along the southern boundary. Overall, it retains poor integrity.

The site is a diffuse scatter of cans, glass, ceramics, and other artifacts including bicycle rims, boot/shoe soles, lumber, and wire dating to both the historical and modern eras. No spatial organization structure, or planning is apparent and distributions appear entirely random. The scatter is likely the result of several, unrelated, secondary depositional episodes related to either travel along Highway 21 or the residence of Minersville disposing of residential trash. The can assemblage includes approximately 100 hole-in-top cans, 200 sanitary cans, and ten paint cans. All the cans were crushed to some degree. The glass assemblage includes approximately 1,000 fragments of clear glass, 200 fragments of brown glass, 200 fragments of sun-colored amethyst (SCA) glass, 50 fragments of cobalt blue glass, 100 fragments of aqua glass, and 50 fragments of milk glass. Two Kerr Glass Mfg Co clear glass bottle bases and one clear glass graduated medicine bottle measuring 6 ¼ by 2 ¼ by 1 ½ inches with an Owens-Illinois maker's mark were also noted. The ceramic assemblage includes approximately ten fragments of porcelain, 20 fragments of white ware, and 30 fragments of crockery. A body fragment of crockery, likely from a crock, with "Macomb, III" painted on the exterior and a fragment of porcelain with a blue transfer print was also noted. Other artifacts noted are a bike tire rim, ten boot/shoe soles, an enamelware plate with a blue/white design, a metal colander, and a single size metal headboard.

Diagnostic material relatively dates the site from 1889 to the present. The "Macomb, III" crockery fragment was made by Macomb Stoneware Company which manufactured utilitarian stoneware pieces including jugs, crocks, and mugs. The company started in 1889, and along with six other companies, merged into Western Stoneware Pottery in 1906. The plant burned in 1913 and was not rebuilt (Lehner 1988). Such crockery tended to be highly curated during the historic era with its use life extending well beyond manufacturing windows. It's presence at the site may not accurately reflect the time of deposition. The Kerr Glass Mfg Co maker's mark has been used from 1912 to present (Toulouse 1971). The Owens-

* Encoded data items

IMACS SITE FORM

Part A - Administrative Data

*1. State No: 42BE004518

Illinois mark dates from 1929 to 1954 (Toulouse 1971). Generally, hole-in-top cans and sanitary cans become common after 1904 (Rock 1981). Temporally diagnostic artifacts were identified throughout the site with no discrete temporally or functionally bound dumping sites/areas noted.

*21. Site Condition Excellent (A) Good (B) Fair (C) Poor (D)

*22. Impact Agents Impacts include erosion vandalism, erosion, and two roads that cross the site.

*23. National Register Status Non-Significant (D)

Justify Site 42BE4518 is recommended as not eligible for inclusion on the NRHP under any potential criteria. Although artifacts at the site range in relative age from 1889 to the present; no discernable temporally or functionally bound concentrations, structure, or planning are present. The site is likely a series unrelated secondary dumping events along the Highway 21 corridor and immediately norther of the town of Minersville. The site is likely the result of Minersville residence dumping residential debris throughout at least the 20th century. The site could not be associated with a specific historic event or person; therefore, the site is not eligible for listing under Criteria A or B. No architecture or unique features are present at the site; therefore it is not eligible for listing under Criterion C. The site is in poor condition with most of the artifacts highly fragmented and the site is still being used as a dump, as evidenced by the modern debris throughout. The surface artifact scatter is common for the historic period with no indication of any potential subsurface cultural components. No discrete dumping sites/areas were noted and temporally diagnostic artifacts were limited in number and diffuse across the site. Additionally, observed diagnostic items like crockery tend to be highly curated goods used and cared for well beyond manufacture windows; therefore may not accurately reflect the temporal range of site use. The site does not have the potential to provide significant important information that will further our understanding of the area's history. The site is not eligible under Criterion D.

24. Photos 103IP2712424:195-198

25. Recorded by Elizabeth Karpinski

*26. Survey Organization Tetra Tech *28. Survey Date 10-Sep-2015

27. Assisting Crew Members _____

List of Attachments: Part B Topo Map Photos Continuation Sheets
 Part C Site Sketch Artifact/Feature Sketch Other: _____
 Part E

Part A - Environmental Data

State No: 42BE004518
Temp. No: _____

*29. Slope 10 (Degrees) 200 Aspect (Degrees)

*30. Distance to Permanent Water 620 x 100 Meters

*Type of Water Source Stream/River (B)

Name of Water Source Beaver River

*31. Geographic Unit Tonoquints Volcanic

*32. Topographic Location - See Guide for additional information

Primary Landform Ridge (D)

Secondary Landform Slope (Q)

Describe Site is located along the southeastern slope of a southwest trending ridge, just north of the Beaver River floodplain.

*33. On-site Depositional Context Colluvium (I)

Describe Sediments are residual/colluvial sand loam with moderate pebble to boulder size gravels.

*34. Vegetation

a. Life Zone

Artic-Alpine (A) Hudsonian (B) Canadian (C) Transitional (D) Upper Sonoran (E) Lower Sonoran (F)

b. Community

Primary On-Site Big Sagebrush (P)

Secondary On-Site Grassland/Steppe (M)

Surrounding Site Big Sagebrush (P)

Describe Vegetation is sparse sagebrush, various grasses. Ground coverage is 25 percent.

*35. Miscellaneous Text _____

36. Comments/Continuations

Lehner, Lois
1988 Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay. Collector Books, Paducah, Kentucky.

Rock, James T.
1981 Tin Cans, Notes and Comments. USDA, Klamath National Forest, Yreka, California.

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

* Encoded data items

Part C - Historic Sites

Site No.(s) 42BE004518

1. Site Type Historic Trash Dump

*2. Historic Themes Agriculture (FR) Community Development (CD)

CULTURAL AFFILIATION **DATING METHOD** **CULTURAL AFFILIATION** **DATING METHOD**

*3. Culture Euro-American (EA) Diagnostic Artifacts (F)

Describe Diagnostic material relatively dates the site from 1889 to the present. The "Macomb, Ill" crockery fragment was made by Macomb Stoneware Company which manufactured utilitarian stoneware pieces including jugs, crocks, and mugs. The company started in 1889, and along with six other companies, merged into Western Stoneware Pottery in 1906. The plant burned in 1913 and was not rebuilt (Lehner 1988). The Kerr Glass Mfg Co maker's mark has been used from 1912 to present (Toulouse 1971). The Owens-Illinois mark dates from 1929 to 1954 (Toulouse 1971). Generally, hole-in-top cans and sanitary cans date from 1885 to ca. 1960 (Rock 1981).

*4. Oldest Date 1889 Recent Date Modern

How Determined Reference Guides

5. Site Dimensions 253 m X 333 m *Area 54,007 sq. m

*6. Surface Collection/Method None (A) Designed Sample (C)
 Grab Sample (B) Complete Collection (D)

Sampling Method None

*7. Estimated Depth of Cultural Fill Surface (A) 20 - 100 cm (C) Fill noted but unknown (E)
 0 - 20 cm (B) 100 cm+ (D) Depth Suspected, but not tested (F)

How Estimated: None

(If Tested, show location on site map)

*8. Excavation Status Excavated (A) Tested (B) Unexcavated (C)

Testing Method None

*9. Summary of Artifacts and Debris *(Refer to Guide for additional categories)*

 Glass (GL) Tin Can-Hole in Top (TD) Tin Can-Sanitary (TC) Can-Utility (CU)
 Ceramic (CS)

Describe: The site is a diffuse scatter of cans, glass, ceramics, and other artifacts including bicycle rims, boot/shoe soles, lumber, and wire dating to both the historical and modern eras. No spatial organization structure, or planning is apparent and distributions appear entirely random. The scatter is likely the result of several, unrelated, secondary depositional episodes related to either travel along Highway 21 or the residence of Minersville disposing of residential trash.

10. Ceramic Artifacts

Paste	Glaze/Slip	Decoration	Pattern	Vessel Form	Count
White/Stoneware	Clear Glaze	None	None	Unknown	20
White/Fine	Clear Glaze	None	None	Unknown	10
Red-Brown/Coarse	Salt Glaze	None	None	Unknown	30

a. Estimated Number of Ceramic Trademarks 0

Describe: The ceramic assemblage includes approximately ten fragments of porcelain, 20 fragments of white ware, and 30 fragments of crockery. A fragment of porcelain with a blue transfer print and one crockery fragment with "Macomb, Ill" were also noted.

Part C - Historic Sites

Site No.(s) 42BE004518

11. Glass

Count	Manufacture	Color	Function	Trademark	Decoration
200	Automatic Machine	Amethyst	Unknown (ZZ)	NA	NA
100	Automatic Machine	Aqua	Unknown (ZZ)	NA	NA
50	Automatic Machine	Blue	Unknown (ZZ)	NA	NA
200	Automatic Machine	Brown	Unknown (ZZ)	NA	NA
1000	Automatic Machine	Clear	Unknown (ZZ)	NA	NA
50	Automatic Machine	Milk	Unknown (ZZ)	NA	NA

Describe: The glass assemblage includes approximately 1,000 fragments of clear glass, 200 fragments of brown glass, 200 fragments of sun-colored amethyst (SCA) glass, 50 fragments of cobalt blue glass, 100 fragments of aqua glass, and 50 fragments of milk glass. Two Kerr Glass Mfg Co clear glass bottle bases and one clear glass graduated medicine bottle measuring 6 ¼ by 2 ¼ by 1 ½ inches with an Owens-Illinois maker's mark were also noted.

12. Maximum Density - #/sq m (glass and ceramics) 20

13. Tin Cans

Type	Opening	Size	Modified	Label/Mark	Function	Count
Hole-In-Top	Unknown	Crushed	NA	NA	Food	100
Sanitary	Friction	Crushed	NA	NA	Non-Food	10
Sanitary	Unknown	Crushed	NA	NA	Food	200

Describe: The can assemblage includes approximately 100 hole-in-top cans, 200 sanitary cans, and ten paint cans. All the cans were crushed to some degree.

***14. Landscape and Constructed Features (locate on site map) - See Guide for additional categories**

Describe: None observed.

***15. Buildings and Structures (locate on site map)**

Describe: None observed.

16. Comments/Continuations - Please make note of any Historic Record searched performed (County Records, General Land Office, Historic Society, Land Management Agency Records, Oral Histories/Interviews)

Lehner, Lois

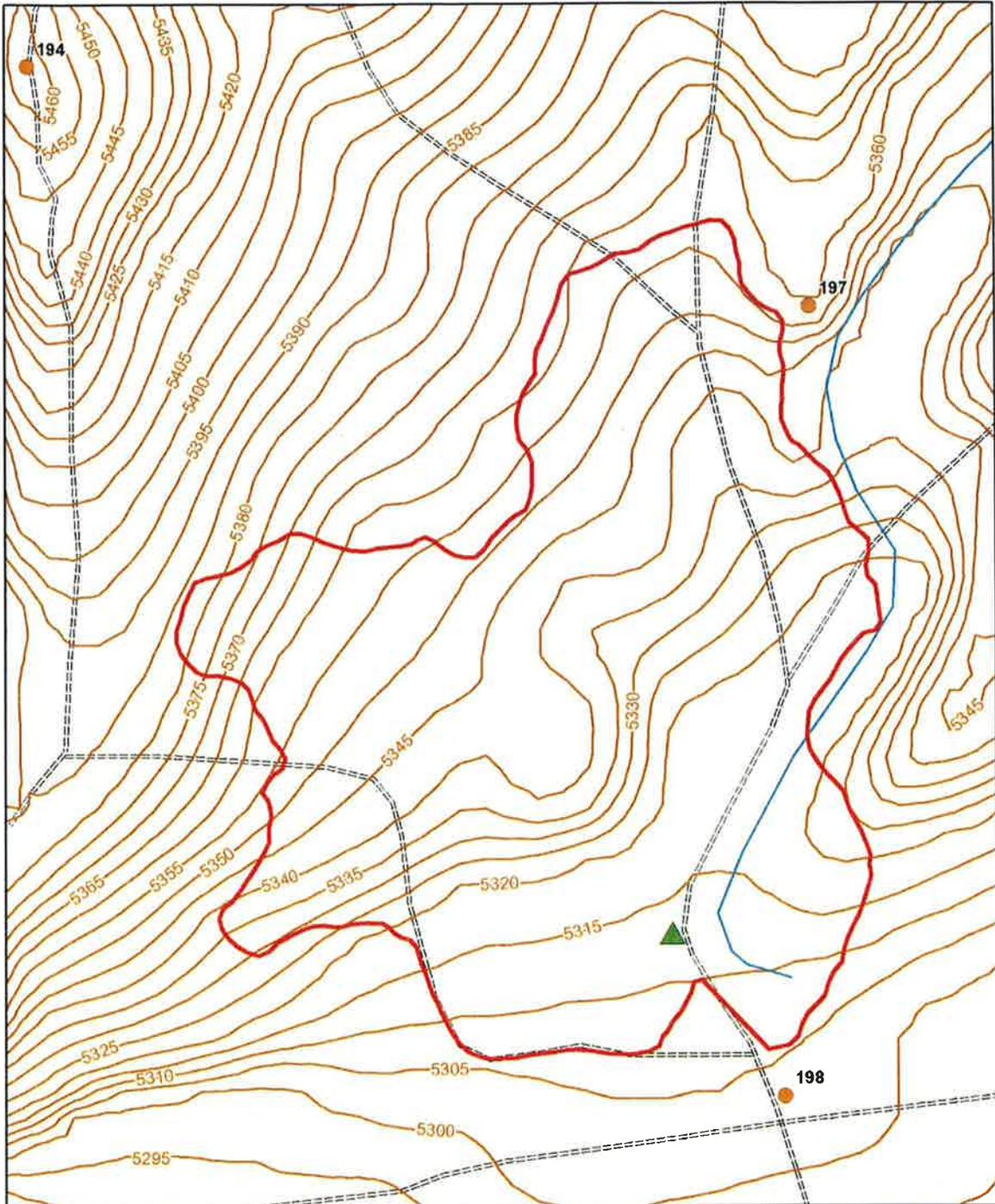
1988 Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay. Collectors Books, Paducah, Kentucky.

Rock, James T.

1981 Tin Cans, Notes and Comments. USDA, Klamath National Forest, Yreka, California.

Toulouse, Julian Harrison

1971 Bottle Makers and Their Marks. Thomas Nelson, Inc., New York.



Legend

-  Datum
-  Site Boundary
-  Drainage
-  Contours (5-ft)
-  Two-track Road
-  Photo Point

0 100 200 ft

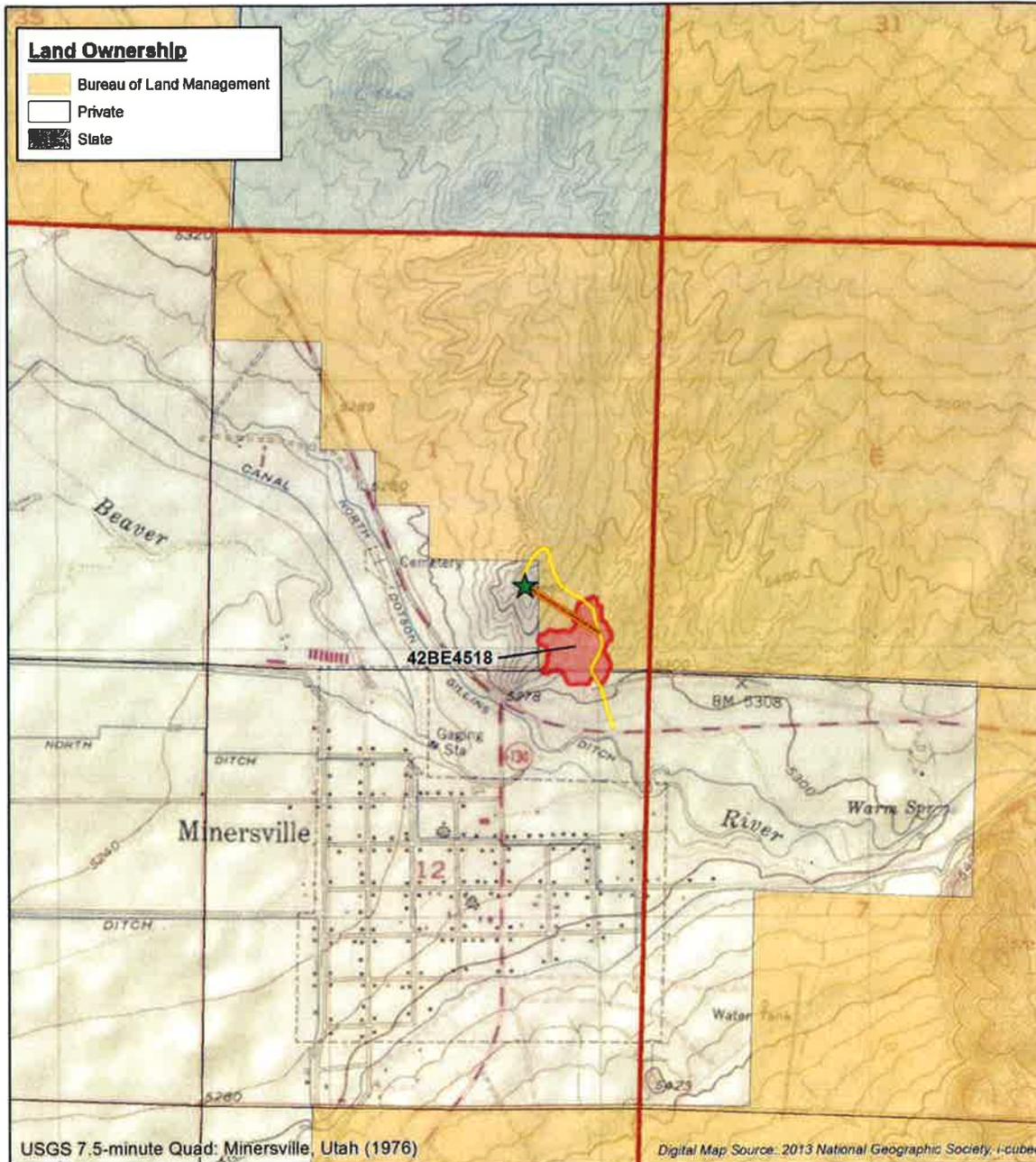


1:2,400



42BE4518

Date: 9/22/2015



<p>Legend</p> <ul style="list-style-type: none"> ★ Proposed Tower Location — Utility Easement (approx location) — Access Road ■ New Archaeological Site 		<p>0 0.25 0.5 Mi 1:24,000</p>	
		<p>Project: UT4 - Minersville 559 North 100 East Minersville, UT 84752</p>	<p>Date: 9/22/2015</p> <p>Client: Verizon Wireless</p>
<p>Location: SE SEC 1, T30S, R10W Beaver County, UT</p>		<p>By: WR</p>	



State Project No.: U15TD0688b
Site No: 42BE4518
Photo No: 103IP2712424:195
Description: Crockery Fragment
Facing: N/A



State Project No.: U15TD0688b
Site No: 42BE4518
Photo No: 103IP2712424:196
Description: Medicine Bottle
Facing: N/A



State Project No.: U15TD0688b
Site No: 42BE4518
Photo No: 103IP2712424:197
Description: Site Overview; 4232350mN, 331962mE
Facing: SW



State Project No.: U15TD0688b
Site No: 42BE4518
Photo No: 103IP2712424:198
Description: Site Overview; 4232042mN, 331951mE
Facing: NW



State Project No.: U15TD0688b
Site No: 42BE4518
Photo No: 103IP2712424:194
Description: Site Overview; 4232444mN, 331658mE
Facing: SE

APPENDIX E
SAGE-GROUSE HABITAT ANALYSIS AND BIOLOGICAL SURVEY

Greater Sage-Grouse Analysis

Project: Fiber Line and Road Right-of-Way Environmental Assessment,

DOI-BLM-UT-C010-2015-0039-EA

This appendix documents the conformance of the project with the Greater Sage-Grouse Environmental Impact Statement Record of Decision (ROD) and Approved Resource Management Plan Amendments (ARMPA) for Utah, approved in September 2015.

Project Overview

Cellular Inc. Network Corporation d/b/a Verizon Wireless and South Central Communications propose to install underground utilities and improve an existing access road on land administered by the Bureau of Land Management (BLM) Cedar City Field Office. The access road and utilities would extend to a proposed telecommunications tower site to be constructed on the adjacent privately-owned parcel. For the purposes of assessing impacts to sage-grouse, all project-related disturbance is analyzed, including those on private land.

The telecommunications lease site would contain a fenced, unmanned 1,925-square foot communications facility consisting of antennas mounted to a new lattice tower and equipment located inside a prefabricated equipment shelter. A 20-foot wide access easement would be located along 0.6 mile of an existing access road, which extends from the State Road 21 right-of-way (ROW) to the proposed telecommunications compound. Access road improvements would consist of regrading portions of the road. The project also includes the installation of 0.4 mile of underground fiber optic utilities. Approximately 0.2 mile of the fiber optic utilities would be within the existing access road easement before turning northwest and traversing another 0.2 mile within a 15-foot wide utility easement to the proposed telecommunications compound. The fiber optic utilities would be installed using directional boring. An additional power conduit would be installed on the adjacent private parcel within a portion of the 0.2 mile-long, 15-foot wide utility easement extending approximately 90 feet from the proposed lease area to a new proposed power pole. Rocky Mountain Power would also install an overhead power line on the adjacent private parcel extending south-southeast approximately 35 feet within an additional 15-foot wide utility easement from the new proposed power pole to existing power lines.

Current Conditions

The project is located in the Bald Hills Priority Habitat Management Area (PHMA) (see attached Figure 1). There are no General Habitat Management Areas or Sagebrush Focal Areas in or near the project. The area is not mapped as breeding (leks), nesting, brood-rearing, or winter habitat by the Utah Division of Wildlife Resources. It is mapped as "other" habitat.

The majority of the project would be located within previously disturbed areas, including an existing access road and an old television antenna station on private land. The 0.2-mile portion of the utility easement located outside the access road ROW would involve minimal surface disturbance and vegetation removal because the utilities would primarily be bored. This portion of the utilities easement is also located in an area that has previously been disturbed by a large historic trash dumping area (which has received human use since at least 1889) and an adjacent existing power line. Based on

a recent field evaluation (Tetra Tech 2015), habitat conditions for greater sage-grouse are poor at the site, likely due to the high level of human disturbance that has historically occurred. The vegetation is sparse, with approximately 25% total cover. The community is dominated by invasive grasses and weeds and has a low percent cover of shrubs (scattered rabbitbrush and sagebrush). Sagebrush cover is very low, less than 5%. There is evidence of past grazing. The area does not provide suitable habitat for sage-grouse in its current condition (see Tetra Tech 2015 for further detail and site photos).

The greater sage-grouse leks in the Bald Hills PHMA are located southwest of Minersville, the closest of which is approximately six miles away from the project. A radio-telemetry study (Burnett 2013) on the Bald Hills population found that the sage-grouse using these leks were never found using the area north of State Road 21 even though the area is mapped as habitat. Therefore, available information seems to indicate that the area around the project is not currently used by the Bald Hills sage-grouse population, and current habitat conditions are unlikely to support future use. However, given that the area has been mapped as PHMA, it may be capable of supporting sage-grouse use if enhancements or improvements were implemented. Additional study would be required to determine the ecological potential of the site to support a higher percentage of sagebrush.

SPECIAL STATUS SPECIES DECISIONS

A. Net Conservation Gain

The project would involve temporary disturbance associated with the access road improvements (0.6 mile long x 20 feet wide), installation of the communication compound (2.5-acre area used per Table E.3) and power line easement (125 feet long x 15 feet wide). The utility boring activities are not considered in the disturbance cap since they would occur underground. Approximately 4.0 acres of land in the Bald Hills PHMA would be disturbed by the project. Areas disturbed on both public and private land would be reclaimed once construction is complete. The seed mix that would be used includes approximately 75 percent native grasses, 12.5 percent small burnet (*Sanguisorba minor*), 8.3 percent four-wing salt bush (*Atriplex canescens*) and 4.2 percent Wyoming big sagebrush (*Artemisia tridentata wyomingensis*).

Greater sage-grouse presently do not use the project area. The vegetation community in its current condition is not functional sage-grouse habitat, but is dominated by invasive grasses and weeds. Temporary disturbance areas associated with project construction would be reseeded with native species and noxious weeds would be controlled. The project would result in a net conservation gain to greater sage-grouse because reclamation activities would improve the vegetation from being non-functional to providing beneficial forage species and sagebrush in the area. For example, one of the species included in the seed mix is small burnet, which is considered good forage for greater sage-grouse, and also deters establishment of invasive and noxious weeds (Fryer 2008).

B. Disturbance Cap

The Biological Significant Unit (BSU) for the project location is the Bald Hills Population Area. The Bald Hills PHMA contains 326,400 acres. The project is located in the northern portion of the PHMA. Current and proposed disturbances in the BSU and in the area affected by the project are shown in Table 1 below. All of the project-related disturbance would be within PHMA. No leks are located within 4 miles of proposed disturbance. Therefore, the project analysis area is the portion of PHMA within a four mile

buffer of proposed new disturbance. The project analysis area encompasses approximately 33,856 acres. There are no site-scale threats in the project analysis area.

Table 1. Existing and Proposed Disturbance Threats

Disturbance Threat	Acres in BSU	Acres in Project Analysis Area
Energy (oil and gas wells and development facilities)	0	14.4
Energy (coal mines)	0	0
Energy (wind towers)	0	0
Energy (solar fields)	0	0
Energy (geothermal)	0	0
Mining (active locatable, leasable and saleable developments)	Locatable: 0 Leasable: 0 Saleable: 36	0
Infrastructure (roads)	3,230	255.5
Infrastructure (railroads)	0	0
Infrastructure (power lines/utilities)	955	4.5
Infrastructure (communication towers)	22	2.5
Infrastructure (other vertical structures)	0	0
Other developed rights-of-way	MinMat Site: 22	56.5
TOTAL DISTURBANCE	4,265 acres (1.3%)	333.4 acres (0.9%)

Existing disturbance within the Bald Hills population analysis area (BSU) totals 4,265 acres or 1.3% of the BSU, which is below the 3% cap. Existing disturbance comprises 329.4 acres of the project analysis area. This project proposes 4.0 acres of new disturbance in the project analysis area. Therefore, existing and project-proposed disturbance together encompass approximately 333.4 acres or 0.9% of the project analysis area, which is below the 3% cap.

C. Density of Energy/Mining Facilities

The project would not increase the density of energy or mining facilities in the Bald Hills PHMA because the project is not an energy or mining development.

D. Predation

The project would not promote predator use of the area. The historic dumping area does not contain human food waste. There are permitted county landfills located in the city of Beaver, Utah and between the city of Milford and the town of Minersville, Utah, but neither is within the Bald Hills PHMA. There are no pinyon pine or juniper trees in the vicinity of the project that would provide perch sites for predatory birds.

E. Noise Restrictions

The project is located at least six miles from the closest lek and a highway is located in between. Noise from construction, operation, or maintenance would not increase noise levels at these leks due to their distance from the project. No noise restrictions would be required.

F. Tall Structure Restrictions

The project is not located within sage-grouse breeding or nesting habitat. Therefore, the tall structure restriction would not apply.

G. Seasonal Restrictions

The project is not located within breeding, nesting, brood-rearing, or winter habitat and is not within 3.1 miles of a lek. Therefore, the seasonal restrictions would not apply.

H. Buffers

Lek buffers would not apply since the project is located approximately six miles from any lek.

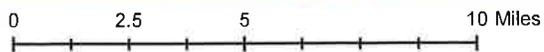
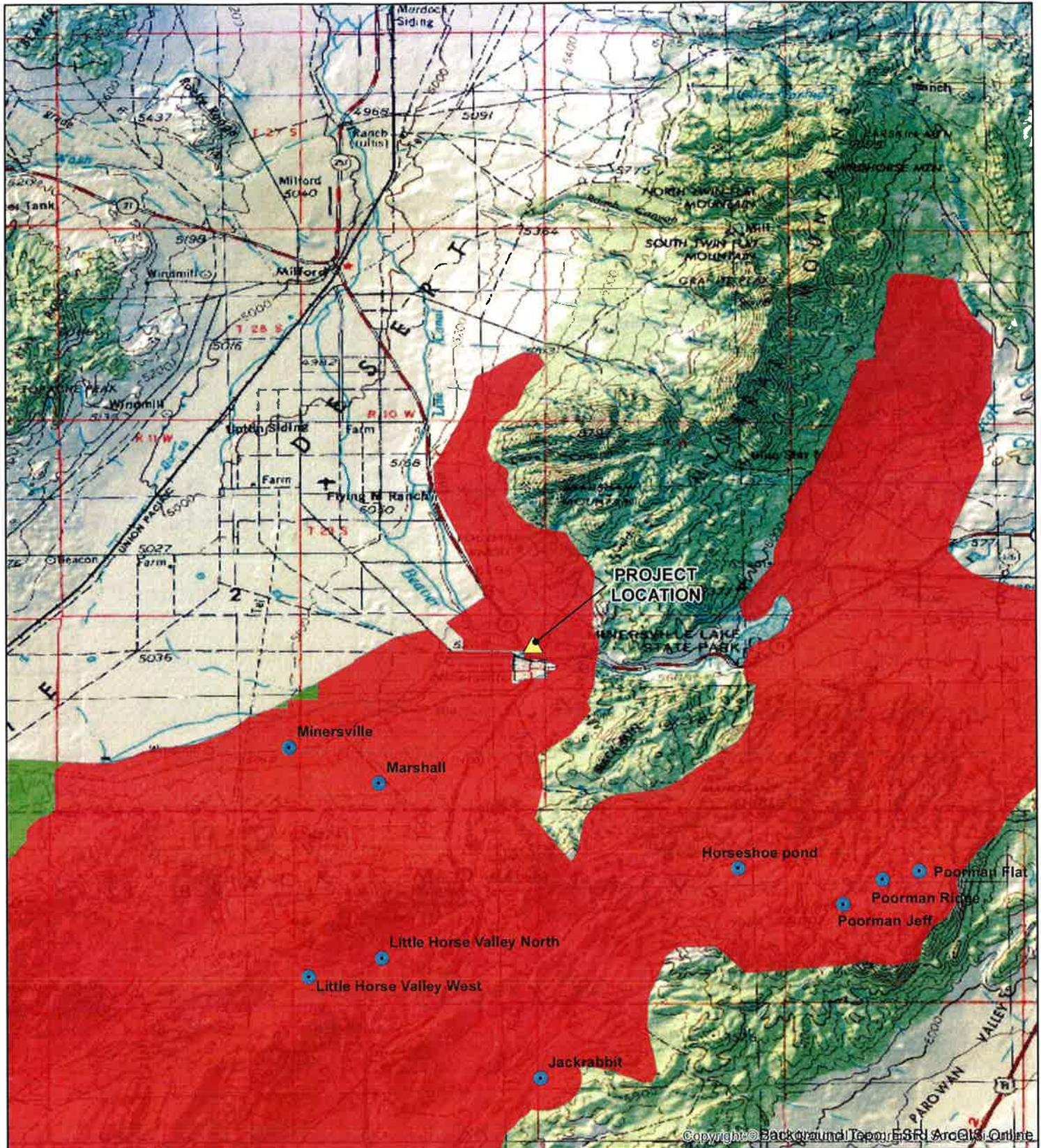
J. Required Design Features (Lands and Realty)

Required Design Feature	Implementation
Where technically and financially feasible, bury distribution powerlines and communication lines within existing disturbance	The underground fiber optic would be bored and would not involve surface disturbance. The power line would not be bored due to the rocky hilltop conditions.
Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose	No new roads would be constructed. The existing road would be graded but not widened.
Place infrastructure in already disturbed locations where the habitat has not been fully restored.	The project is within a historic dumping area. It has also been disturbed by grazing and contains invasive weeds. The underground fiber would be buried. The power line and pole would be located adjacent to an existing powerline.
Cluster disturbance, operations, and facilities	The utility easement would parallel the existing power line and access road as much as possible. The communications compound would be located adjacent to an existing old television antenna and associated structures.
Micro-site linear facilities to reduce impacts to GRSG	Additional visual impacts are not anticipated from the project's linear facilities. The utilities would be buried, and the power line would be located adjacent to an existing power line.
Locate staging areas outside GRSG habitat to the extent possible.	N/A. No staging areas are proposed.
Coordinate road construction and use among ROW holders	ROW holders will be notified about the project prior to construction.
Restrict vehicle traffic to only authorized users on newly construction routes	N/A. The access road already exists.

Construct road crossings at right angles to ephemeral drainages and stream crossings.	N/A. The access road already exists.
Consider placing pipelines under or immediately adjacent to a road or adjacent to other pipelines first, before considering co-locating with other ROW	N/A. No pipelines are proposed.
Control the spread and effects of non-native plant species	The proponent would control noxious weeds in disturbed areas until reclamation is complete.
New ROW structures will be constructed with perch deterrents or other anti-perching devices, where needed.	No perch deterrents are needed due to the lack of trees in the vicinity, and the lack of sage-grouse breeding and nesting habitat in the project area.

References

- Burnett, A.C. 2013. Modeling Habitat Use of a Fringe Greater Sage-grouse Population at Multiple Spatial Scales. All Graduate Theses and Dissertations. Paper 1755.
<http://digitalcommons.usu.edu/etd/1755>.
- Fryer, J. 2008. Sanguisorba minor, Species Review in: Fire Effects Information System (FEIS) [online]. U.S. Department of Agriculture Forest Service (USFS), Rocky Mountain Research Station, Fire Sciences Laboratory. <http://www.fs.fed.us/database/feis/plants/forb/sanmin/all.html>. (Accessed April 21, 2016)
- Tetra Tech, Inc. 2015. Greater Sage-grouse Habitat Assessment for Verizon's UT4 Minersville Cell Tower Project. Technical Memorandum submitted to the Bureau of Land Management, Cedar City Field Office. December 23, 2015.



Legend

-  Project Location
-  Greater Sage-grouse Lek

- BLM Habitat Category**
-  General Habitat Management Area (GHMA)
 -  Priority Habitat Management Area (PHMA)

Figure 1. Greater Sage-grouse Habitat and Lek Locations

UT4 Minersville Cellular Tower Project
Verizon Wireless

Section 1 and 12, T 30S, R10W
Beaver County, Utah



Technical Memorandum

To:	<u>Sheri Whitfield</u>	From:	<u>Wendy Rieth, Sean Kite</u>
Company:	<u>Bureau of Land Management</u>	Date:	<u>December 23, 2015</u>
Address:	<u>176 East D.L. Sargent Drive, Cedar City, Utah 84721</u>	Project No.:	<u>103IP2712424</u>
Re:	<u>Greater Sage-grouse Habitat Assessment for Verizon's UT4 Minersville Cell Tower Project</u>		
CC:	<u>Molly Kuisle (Tetra Tech)</u>		

Verizon Wireless is proposing to develop the UT4 Minersville Cellular Tower Project (Project) near the town of Minersville, Utah in southeastern Beaver County. The proposed action includes the installation of underground utilities and the improvement of an existing road on land administered by the Department of the Interior, Bureau of Land Management (BLM) Cedar City Field Office. The access road and utilities will extend to a proposed Verizon Wireless telecommunications tower site to be constructed on the adjacent, privately owned parcel. Verizon Wireless proposes to locate a 20-foot wide access and utility easement over an existing, approximately 0.6 mile access road extending from the State Road 21 right-of-way to the proposed telecommunications tower lease area; approximately 0.38 mile of the easement will be located on BLM-administered lands. Portions of the road will be regraded. The proposed action also includes the installation of utilities extending along the access road from the State Road 21 right-of-way approximately 0.2 mile and then northwest within a 15-foot wide, approximately 0.2-mile long utility easement to the proposed telecommunications compound. These features are displayed on **Figure 1**. No other related structures or facilities will be located on BLM land. All permanent equipment, except utility lines, will be located within a fenced compound on the adjacent private parcel. An Environmental Assessment (EA) is being completed for the Project. The BLM Cedar City Field Office identified greater sage-grouse (*Centrocercus urophasianus*) as a species requiring baseline information and analysis in order to determine if the species or its habitat would be affected by the Project. This memorandum summarizes the methods and results of a greater sage-grouse habitat assessment conducted in support of the EA. The assessment consisted of a desktop data review and a field survey to assess habitat conditions on the ground.

Project Area

The Project is in the Central Basin and Range Ecoregion, where the topography is characterized by isolated mountain ranges separated by wide valley basins. More specifically, the Project is located in the southern foothills of the Mineral Mountains on the top of a southwest trending ridge and its southeast-facing slope. The tower site overlooks the town of Minersville and the Beaver River floodplain. The Escalante Desert is located to the west of the Project, the Black Mountains are located to the south, and Beaver Valley lies to the east of the Project. State Highway 21 (Hwy 21) and the Beaver River are located approximately a quarter-mile and half-mile, respectively, to the south of the Project. Elevations in the Project area range from approximately 5280 to 5445 feet. Land uses in the vicinity include rangeland and agriculture.

Vegetation communities in the Project area are dominated by invasive weed species, native grasses, sagebrush (*Artemisia tridentata tridentata*), and rabbitbrush (*Chrysothamnus* spp.). The area shows evidence of past grazing. There is also a large, unorganized trash dumping area present that contains scattered historic fragments and recent trash. The trash dumping site has received human use since at least 1889 (Tetra Tech 2015).

Tetra Tech

4750 West 2100 South, Suite 400, Salt Lake City, Utah 84120
Tel 801.364.1064 Fax 801.364.2021 www.tetrattech.com

Desktop Review

The Project is in the northwestern portion of the Bald Hills Sage-grouse Management Area (SGMA). There are 11 known leks and an average of 68 males in this SGMA (Burnett 2013, UDWR 2013). The closest leks to the Project are located to the south in the Black Mountains. Of these, the Marshall and Minersville leks are closest to the Project, and are located approximately six miles to the southwest (**Figure 2**).

Greater sage-grouse habitat encompasses all the seasonal habitats used by the birds at some point during their yearly life cycle, including lek sites, nesting, brood-rearing, late-brood rearing, transitional, and wintering areas (UDWR 2013). The Utah Division of Wildlife Resources (UDWR) habitat map shows that the majority of the Mineral Mountains is mapped as non-habitat (UDWR 2014). The Project area is mapped as "Other" habitat, and is surrounded by either opportunity or non-habitat (**Figure 2**). Other habitat is defined as habitat that is used during some part of the year but is not a lek, nesting/brooding area, or wintering area (UDWR 2013). These are likely transitional areas that sage-grouse may use during migration or incidental travel between seasonal habitats. UDWR management provisions for Other habitat include avoiding, minimizing, and/or mitigating disturbance. Cumulative new permanent disturbance should not exceed 5% of the surface area of Other habitat in the SGMA.

A Master's thesis study was conducted by Burnett (2013) on the Bald Hills greater sage-grouse population. Burnett (2013) used aerial and ground telemetry to locate 66 radio-collared sage-grouse in all seasons and also conducted vegetation surveys at established plots. Based on her research, the majority (80%) of sage-grouse in this population were one-stage migratory, migrating long distances (>10 kilometers) to small areas of disjunct summer and winter habitat. Locations of migration corridors are unknown. The sage-grouse primarily used the Black Mountains and foothills and Beaver Valley, and were found using the agricultural fields in the Minersville area in summer and brood-rearing seasons. However, no radio-collared birds were recorded north of Hwy 21 (where this Project is located). Burnett (2013) suggested that the highway is probably not a dispersal barrier since the sage-grouse crossed other similar highways, and that the presence of human development or poor quality habitat may be reasons the birds do not use the area.

Habitat in the arid Bald Hills SGMA is marginal compared to the more mesic sagebrush steppe ecosystems where the species is found (Burnett 2013). Burnett (2013) described summer habitat on the east side of the Bald Hills SGMA as a large mosaic of mature big-sagebrush habitat at high elevation with limited understory, and included areas that were treated following a fire. Summer habitat on the west side of the study consisted of agricultural fields surrounded by weedy areas. Winter habitat consisted of black sagebrush (*A. nova*) and big sagebrush, and lacked an understory of grasses and forbs. Burnett (2013) also surveyed vegetation plots. Shrub canopy cover at Bald Hills nesting (36%) and brood-rearing sites (28%) exceeded that recommended in current Connelly et al. (2000) guidelines and grass and forb cover was lower than the guidelines. Current guidelines state that sage-grouse require 15-25% cover of sagebrush and at least 15% cover of grass/forbs (Connelly et al. 2000).

Field Survey

A Tetra Tech biologist conducted the greater sage-grouse habitat assessment on May 28, 2015. The objective of the field assessment was to document current habitat conditions. The habitat assessment evaluated vegetation characteristics relative to habitat suitability indicators outlined in the Sage Grouse Habitat Assessment Framework (HAF) (Stiver et al. 2010). The survey area included a ¼-mile buffer surrounding the proposed access road and utility easement locations.

Total vegetation cover is sparse, approximately 25%. The vegetation is dominated by invasive perennial/annual grassland and forbland communities, which comprise approximately 80% of the vegetation cover in the survey area. Scattered sagebrush and rabbitbrush comprise the remainder of the site. Weedy species recorded included cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola kali*), kochia (*Kochia scoparia*), saltlover (*Halogeton glomeratus*), clasping pepperweed (*Lepidium perfoliatum*), herb sophia (*Descurainia sophia*), and tumble mustard (*Sisymbrium altissimum*). Representative photos are included in Appendix A.

Sagebrush cover in the Project area was very low, less than 5%. The scattered shrubs were between 30 and 45 centimeters tall. Percent cover of other shrub species was less than 10%. The primary site disturbance appeared to be historic grazing. Other disturbance observed included powerlines, two-track roads, and historic earth moving activities.

Conclusions

Greater sage-grouse prefer sagebrush communities with a mixture of perennial forbs in the understory, which were not present in the survey area. Radio-collared sage-grouse in the Bald Hills population used areas with 28-38% shrub cover, whereas the Project area had less than 10% shrub cover. Based on habitat suitability indicators in Stiver et al. (2010), the Project area is unsuitable habitat for any seasonal use because of the low shrub and sagebrush cover, dominance by invasive forbs and grasses, and high level of disturbance. Stiver et al. (2010) state that unsuitable habitat includes areas that are potential shrublands but are currently dominated by grass, annual grass, or incompatible land uses (including anthropogenic features). These areas do not provide the basic requirements of food (sagebrush, forbs) and shelter (sagebrush, other shrubs). In addition, the area in the surrounding Mineral Mountains is categorized as non-habitat or opportunity habitat by UDWR, and is isolated from suitable breeding, summer, and winter habitat known to be used by the Bald Hills population to the south and southeast of the Project. Finally, no sage-grouse from the radio-telemetry study were documented north of Hwy 21 (Burnett 2013). For these reasons, greater sage-grouse are unlikely to use the Project area, and the Project would not impact sage-grouse or suitable habitat.

References

- Burnett, A.C. 2013. Modeling Habitat Use of a Fringe Greater Sage-grouse Population at Multiple Spatial Scales. All Graduate Theses and Dissertations. Paper 1755. <http://digitalcommons.usu.edu/etd/1755>
- Connelly, J.A., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28: 967-985.
- Stiver, S.J., E.T. Rinkes, and D.E. Naugle. 2010. Sage-grouse Habitat Assessment Framework. U.S. Bureau of Land Management. Unpublished Report. U.S. Bureau of Land Management, Idaho State Office, Boise, Idaho. August 2010.
- Tetra Tech. 2015. Class III: Cultural Resources Inventory, UT4 Minersville, Minersville, Beaver County, Utah. September 22, 2015. 6 p. + appendices.
- Utah Division of Wildlife Resources (UDWR). 2013. Final Conservation Plan for Greater Sage-grouse in Utah. Utah Division of Wildlife Resources. February 14, 2013
- Utah Division of Wildlife Resources (UDWR). 2014. Vector GIS data of Sage-grouse Management Areas. Available: <http://dwrcdc.nr.utah.gov/ucdc/downloadgis/disclaim.htm>

Appendix A. Field Photos



View of the southern portion of the access road on BLM property, looking north.



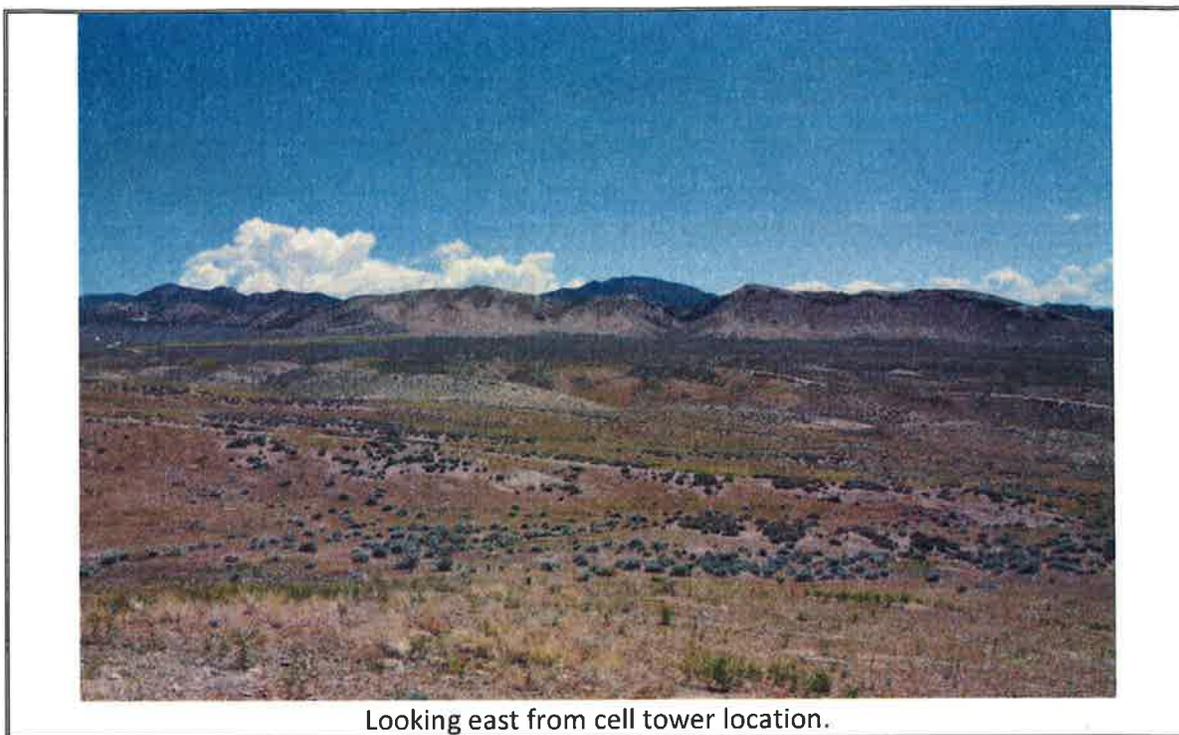
Current conditions along the access easement.

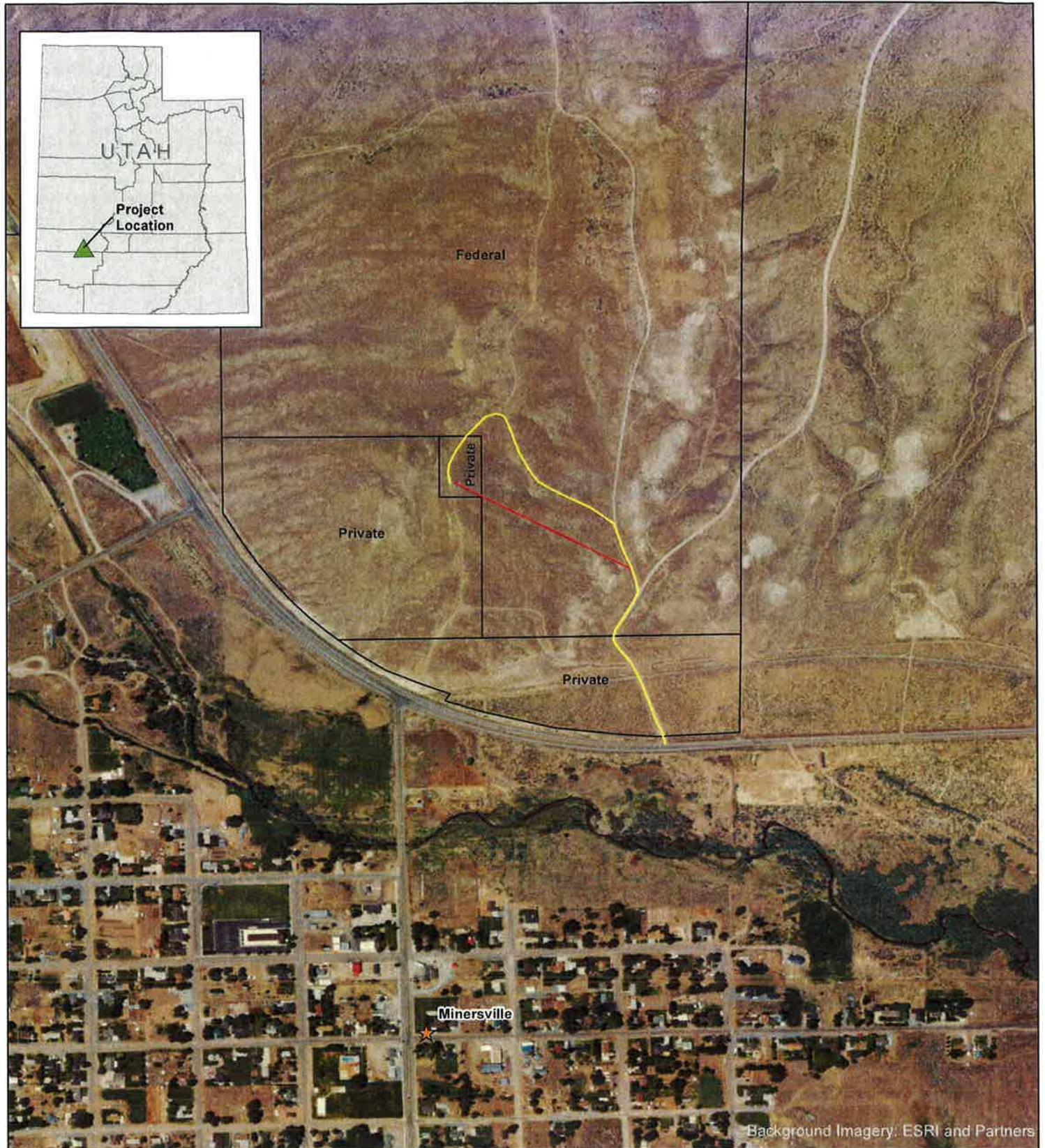


View of the utility easement, looking northwest towards the proposed cell tower location on the hill.



Looking north from the cell tower location.





Background Imagery: ESRI and Partners

Legend

-  Project Location
-  City/Town
-  Proposed Access Road
-  Proposed Utility Easement (approx. location)

-  Parcel Boundary
-  County Boundary

0 500 1,000 Feet

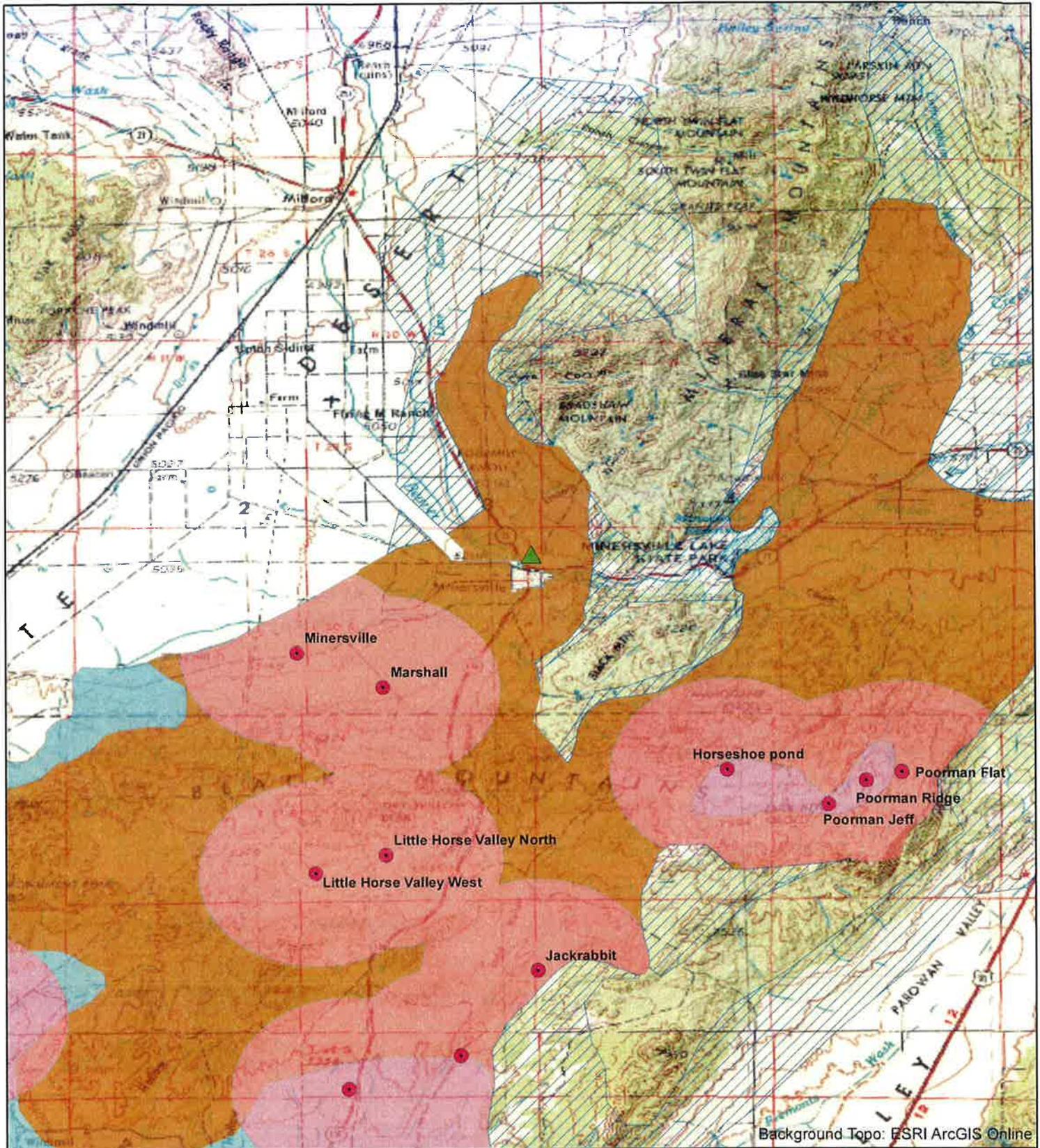


Figure 1. Project Area

UT4 Minersville Cellular Tower Project

Verizon Wireless

Section 1 and 12, T 30S, R10W
Beaver County, Utah



Background Topo: ESRI ArcGIS Online

Legend

- ▲ Project Location
- Greater Sage-grouse Lek
- Nesting, Brood-rearing, and Winter Habitat
- Nesting and Brood-rearing Habitat
- Winter Habitat
- Other Habitat
- Opportunity Habitat
- Not Habitat

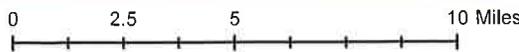


Figure 2. Greater Sage-grouse Habitat and Lek Locations

UT4 Minersville Cellular Tower Project
Verizon Wireless

Section 1 and 12, T 30S, R10W
Beaver County, Utah

APPENDIX F
NEPA REVIEW SUPPORTING DOCUMENTATION



December 11, 2015

Larry Crist, Field Supervisor
U.S. Fish and Wildlife Service
Utah Ecological Services Field Office
2369 Orton Circle, Suite 50
West Valley City, Utah 84119

**Subject: Migratory Birds and Protected Species
Proposed New 156-foot Self-Support Tower
UT4 Minersville (EnSite #25442) Tower Site
Minersville, Beaver County, Utah
N38° 13' 26.73"/W112° 55' 22.95" (NAD 83)
Minersville, UT USGS Quadrangle
Section 1 and Section 12 of Township 30 South, Range 10 West**

<input type="checkbox"/> Concur No Effect Species:
<input checked="" type="checkbox"/> Concur Not Likely to Adversely Affect Species: <i>DPO</i>
<input type="checkbox"/> No Comment
<i>[Signature]</i> U.S. FWS-Utah Field Supervisor
Date: <i>11/7/2014</i>

Dear Mr. Crist:

Tetra Tech has been contracted by Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon Wireless) to conduct an environmental review for the proposed UT4 Minersville (EnSite #25442) Tower Site (the Project) located near Minersville, Utah. The purpose of this review is to establish compliance with the Federal Communications Commission (FCC) rules and regulations for implementing the National Environmental Policy Act (NEPA) [47 CFR 1.1301-1319]. As part of this process, we are required to obtain information regarding Verizon Wireless' activities and how they will affect listed threatened/endangered species, candidate species, species of concern, and critical habitats in the Project area.

The proposed Project is located at 559 North 100 East in Minersville, Beaver County, Utah, within the southeast quarter of Section 1, and northeast quarter of Section 12, of Township 30 South, Range 10 West, in the Minersville, UT (1999) USGS Quadrangle. At this location, Verizon Wireless proposes to construct a new 156-foot self-support telecommunications tower and place a 12-foot by 26-foot equipment shelter on the adjacent ground space within a 55-foot by 35-foot lease area. The proposed action includes a 20-foot wide access easement extending along an existing trail from State Road 21 to the proposed lease area. The proposed action also includes the installation of utilities along the access road extending from the State Road 21 right-of-way approximately 0.2 mile and then extending northwest within a 15-foot, approximately 0.2 mile long utility easement to the proposed telecommunications compound. The latitude/longitude coordinates of the proposed tower are N38° 13' 26.73"/W112° 55' 22.95" (NAD 83). The proposed tower location is currently a sparsely vegetated hilltop (see enclosed photographs). The surrounding area consists primarily of an undeveloped hilly area with the city of Minersville located southwest of the subject property.

The U.S. Fish and Wildlife Service (USFWS) has issued guidance on the siting, construction, operation and decommissioning of communications towers to reduce impacts on migratory birds¹. The siting and design

¹ USFWS. 2013. 2013 U.S. Fish and Wildlife Service (USFWS) Revised Voluntary Guidelines For Communications Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning. September 27. Available online at <http://www.fws.gov/migratorybirds/PDFs/USFWS2013RevisedGuidanceCommTowers27Sept13.pdf>

UT4 Minersville (Ensite #25442)

December 11, 2015

Page 2

process for this Project has conformed to several of these recommendations including project siting in minimally sensitive areas, limiting tower height to 156 feet, and eliminating the need for guy wires and FAA obstruction lighting.

Based on information obtained from the USFWS's IPaC database, there are two federally threatened species, three candidate species, and one experimental population thought to occur within the vicinity of the Project. Additionally, there are 22 state listed species of special concern thought to occur within Beaver County (see enclosed lists of species). Although habitat for one or more listed species, specifically the greater sage-grouse (*Centrocercus urophasianus*) and Utah prairie dog (*Cynomys parvidens*), may be present within the vicinity of the Project, based on the nature of the Project (relatively small footprint and minimal removal of native vegetation), no adverse effects to federal or state listed species is anticipated.

Based on the reviewed information, Tetra Tech believes that a "May Affect, Not Likely to Adversely Affect" determination is appropriate for the Project. We would appreciate a response indicating whether the U.S. Fish and Wildlife Service concurs with Tetra Tech's "May Affect, Not Likely to Adversely Affect" determination.

Your time and effort regarding this request are greatly appreciated. If you have questions or need additional information, please feel free to contact me at 612-643-2233.

Sincerely,



Kathy Bellrichard
Environmental Scientist
kathy.bellrichard@tetrattech.com

Enclosures: Figure 1 – Site Vicinity Map
Site Photos
Federal List of Threatened, Endangered and Candidate Species for Beaver County
State List of Threatened, Endangered and Special Concern Species for Beaver County



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

GREGORY SHEEHAN
Division Director

December 22, 2015

Molly Kuisle
Tetra Tech
2001 Killebrew Drive, Suite 141
Bloomington, MN 55425

Subject: Species of Concern Near the UT4 Minersville (EnSite #25442) Tower Site, Minersville, Utah

Dear Molly Kuisle:

I am writing in response to your email dated December 11, 2015 regarding information on species of special concern proximal to the proposed UT4 Minersville (EnSite #25442) Tower Site located in Section 1 of Township 30 South, Range 10 West, SBL&M in Minersville, Utah.

The Utah Division of Wildlife Resources (UDWR) does not have records of occurrence for any threatened, endangered, or sensitive species within the project area noted above. However, within a two-mile radius there are recent records of occurrence for burrowing owl and long-billed curlew, and historical records of occurrence for short-eared owl. All of the aforementioned species are included on the *Utah Sensitive Species List*.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the southern region, Gary Bezzant, at (435) 691-2357 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sarah Lindsey
Information Manager
Utah Natural Heritage Program

cc: Gary Bezzant



**APPENDIX G
RECLAMATION PLAN**

**Verizon Wireless UT4 Minersville Site
BLM-Approved Seed Mix and Reclamation Plan**

Species	Total Pure Live Seed Pounds per Acre
Crested Wheatgrass	3.0
Indian Ricegrass	2.0
Intermediate Wheatgrass	2.5
Bottlebrush Squirreltail	1.5
Wyoming Big Sagebrush	0.5
Fourwing Saltbush	1.0
Small Burnet	1.5
Totals	12

*This mix is intended to be drill seeded in late fall/early winter between October 15 and December 15, or as otherwise approved by the BLM Authorized Officer. Seed should generally be drilled from .25 to .5 inches deep and in furrows. **If seed is broadcast, use a minimum of 1.5 times the rates shown.**

*Reclamation efforts would be required on any new project-related disturbance that occurs outside approved width as identified in the approved right-of-way grant for the access road and fiber line.

Noxious Weeds List

Common Name	Scientific Name	State of Utah Designation	Beaver County
Bermudagrass	Cynodon dactylon	Class B	x
Black Henbane	Hyoscyamus niger	Class A	x
Bull thistle	Cirsium vulgare		x
Canada Thistle	Cirsium arvense	Class C	x
Dalmatian Toadflax	Linaria genistifolia	Class B	x
Diffuse Knapweed	Centaurea diffusa	Class A	x
Dyer's Woad	Isatis tinctoria	Class B	x
Field Bindweed	Convolvulus arvensis	Class C	x
Hoary Cress	Cardaria draba	Class B	x
Houndstongue	Cynoglossum officinale	Class C	x
Johnsongrass	Sorghum halepense	Class A	x
Leafy Spurge	Euphorbia esula	Class A	x
Medusahead	Taeniatherum caput-medusae	Class A	x
Musk Thistle	Carduus nutans	Class B	x
Oxeye Daisy	Chrysanthemum leucanthemum	Class A	x
Perennial Pepperweed	Lepidium latifolium	Class B	x
Poison Hemlock	Conium maculatum	Class B	x
Purple Loosestrife	Lythrum salicaria	Class A	x
Quackgrass	Elytrigia repens	Class C	x
Russian Knapweed	Centaurea repens	Class B	x
Saltcedar	Tamarix ramosissima	Class C	x
Scotch Thistle	Onopordum acanthium	Class B	x
Spotted Knapweed	Centaurea maculosa	Class A	x
Squarrose Knapweed	Centaurea virgata	Class B	x
St. Johnswort	Hypericum perforatum	Class A	x
Sulfur Cinquefoil	Potentilla recta	Class A	x
Yellow Starthistle	Centaurea solstitialis	Class A	x
Yellow Toadflax	Linaria vulgaris	Class A	x

Class A weeds have a relatively low population size within the State and are of highest priority being an *Early Detection Rapid Response* (EDRR) weed. **Class B weeds** have a moderate population throughout the State and generally are thought to be controllable in most areas. **Class C weeds** are found extensively in the State and are thought to be beyond control. Statewide efforts would generally be towards containment of smaller infestations.

Sources: <http://www.utahweed.org/weeds.htm>; accessed 4/1/2016

http://ag.utah.gov/documents/ISM_CountyNoxiousWeeds_2015.pdf; accessed 4/1/2016