

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-NV-B010-2013-0024-EA**

**Telecommunication Facilities at
Kingston, Dyer, and Hickison Summit**

July 2013

Applicant:
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Bureau of Land Management
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LIST OF ACRONYMS

ACEC - Area of Critical Environmental Concern
ANTC – Arizona Nevada Tower Corporation
ARRA - American Recovery and Reinvestment Act
ATV - All-Terrain Vehicle
AUM - Animal Unit Months
BIP - Broadband Initiative Project
BLM - (United States) Bureau of Land Management
BMDO - Battle Mountain District Office
BMP - Best Management Practices
CESA - Cumulative Effects Study Area
CFR - Code of Federal Regulations
CM - Centimeter
DOI - Department of Interior
EA - Environmental Assessment
EO - Executive Order
FAA - Federal Aviation Administration
FCC - Federal Communications Commission
FLPMA - Federal Land Policy and Management Act
FO - Field Office
FT - Foot
FT² - Square Foot
HMA – Horse Management Area
KM - Kilometer
KW - Kilowatt
LR2000 - Land Records 2000 Database
LTE - Long Term Evolution
MDM - Mount Diablo Meridian
NAC - Nevada Administrative Code
NRCS - Natural Resources Conservation Service
NDOA - Nevada Department of Agriculture
NDOT - Nevada Department of Transportation
NDOW - Nevada Department of Wildlife
NEPA - National Environmental Policy Act
NNHP - Nevada Natural Heritage Program
NV - Nevada
OHV - Off-Highway Vehicle
PL - Public Law
RMP - Resource Management Plan
ROW - Right-of-Way
SHPO - State Historical Preservation Office
SR - State Route
STAT - U.S. Statute
T&E - Threatened and Endangered Species
US - United States
USC - United States Code
USFS - United States Forest Service

USFWS - United States Fish and Wildlife Service

VEA - Valley Electric Association

VRM - Visual Resource Management

WIMAX - Worldwide Interoperability for Microwave Access

Chapter 1

Introduction

1.1 Introduction

This Environmental Assessment (EA) discusses and analyzes Arizona Nevada Tower Corporation's (ANTC)¹ proposal to construct three telecommunications facilities within the Battle Mountain District. It is a site-specific analysis of potential impacts potentially resulting from implementation of the Proposed Action. The EA assists the Bureau of Land Management (BLM) in project planning, ensuring compliance with the National Environmental Policy Act of 1969², as amended (NEPA), and making a determination whether 'significant'³ impacts could result from the analyzed actions.

1.2 Background

The proposed action is associated with the American Recovery and Reinvestment Act of 2009's (Recovery Act)⁴ Broadband Initiative Program (BIP) (www.broadband.gov). The BIP was enacted to facilitate expansion of broadband communication services and infrastructure, thereby advancing Recovery Act objectives to spur the economy through job creation and build technological infrastructure to fuel long-term economic growth and opportunity.

In 2008, ANTC received a United States Department of Agriculture grant to fund its Microwave Backhaul project. The Backhaul project's proposed route includes service starting in Las Vegas, then passing to Pahrump and along US Highway 95 to south of Beatty. From Beatty, service would pass north along US 95 through Tonopah to just beyond Hawthorne and, from there, north to Yerington and Silver Springs. From Tonopah, service would also extend north to Austin (with southerly service spurs from Austin to the Reese River Valley and Yomba Indian Reservation) and east to Eureka. From Eureka, service would extend to its northern terminus at Carlin, and south to Duckwater and the Railroad Valley.

Built with a focus on community anchor institutions and with interoperability at its core, the Microwave Backhaul Project would provide wireless telephone carriers, public safety providers, local television and radio translators, educational content providers and enterprise users with access to infrastructure necessary to radically enhance communications. The Project is designed to deliver significant bandwidth using cutting edge LTE/WIMAX⁵-ready technologies, thereby providing highly reliable and scalable

¹ 6220 McLeod Drive, Ste. 100, Las Vegas, Nevada 89120

² Public Law 91-190 (42 U.S.C. 4321-4347, 1 Jan. 1970)

³ 'Significance' is determined through consideration of impact context and intensity.

⁴ Public Law 111-5 ('Recovery Act') (123 Stat. 115) 17 Feb. 2009

⁵ Long Term Evolution (4G speed) Worldwide Interoperability for Microwave Access

broadband transport to enhance existing but limited local fiber optic cable service, or provide transport where fiber optic is currently unavailable.

1.3 Identifying Information

Title: Construction of Three Telecommunications Towers and Related Ancillary Equipment Housing Structures in Lander, Nye and Esmeralda Counties.

EA Number: DOI-BLM-NV-B010-2013-0024-EA

Type: Construction of Telecommunication Tower Sites and Associated Rights-of-Way

1.4 Location of Proposed Action

- 1) *Hickison Summit* (Lander County) in the north end of the Toquima Range overlooking Monitor Valley and US Highway 50 (maps 1 & 2);
- 2) *Kingston* (Nye County) immediately northwest of the intersection of Nevada State Route 376 and an un-named road just north of Old Decker Road in the Big Smoky Valley (maps 1 & 3); and
- 3) *Dyer* (Esmeralda County) along the Von Schmidt Line immediately southwest of the Dyer settlement and Nevada State Route 264 (maps 1 & 4).

Legal Descriptions

- 1) *Hickison Summit*: Mt. Diablo Base Meridian, Nevada, T18N, R46E, Sec. 1, NE1/4NE1/4 (within);
- 2) *Kingston*: MDM, Nevada, T14N, R43E, Sec. 21, SW1/4SW1/4NW1/4 (within);
and
- 3) *Dyer*: MDM, Nevada, T3S, R35E, Sec. 36, Lot 3 (Von Schmidt Line).

1.5 Preparing Offices

Mount Lewis Field Office, Bureau of Land Management, 50 Bastian Road, Battle Mountain, Nevada 89820 (lead office) and

Tonopah Field Office, Bureau of Land Management, P.O. Box 911, 1553 South Main Street, Tonopah, Nevada 89049.

1.6 Case File Numbers

- 1) *Hickison Summit*: BLM Application N-91093;
- 2) *Kingston*: BLM Application N-91092; and
- 3) *Dyer*: BLM Application N-91090.

1.7 Applicant

ANTC, Las Vegas, Nevada.

1.8 Proposed Action Summary

ANTC proposes to construct three new telecommunications facilities (Hickison Summit, Kingston and Dyer) at separate locations within the Nevada Bureau of Land Management, Battle Mountain District (maps 1-4). Each site would consist of a steel-lattice tower supporting microwave dishes. Ancillary equipment shelters would be installed adjacent to the towers. New access would be required at Kingston and Dyer. Applications to lease the three sites were filed with BLM in April 2012.

ANTC already holds several telecommunications site leases on public lands managed by BLM's Las Vegas, Pahrump, Tonopah, Carson City and Ely field offices. The proposed project would enlarge this communication network within BLM's Battle Mountain District.

1.9 Conformance

Construction of the proposed facilities is in accordance with the affected counties' land use policies and management plans:

Policy 3 (Federal Land Transactions) of Lander County's *2005 Policy Plan for Federally Administered Lands* states that 'Corridors for the future transmission of energy, communications and transportation need to be planned in harmony with other multiple uses on federally administered lands' (Lander County 2005).

Nye County's *Public Land Management Goal-17, Policy E* stipulates that 'Nye County shall work with energy providers and BLM to establish utility corridors' (Nye County BOCC 2011).

Policy 22 (Rights-of-Way) of Esmeralda County's *Draft Public Lands Policy Plan* (Anon. 2012) '...supports use of public lands for rights-of-way for multiple purposes' and specifically cites 'communication' as one such purpose. The plan further states (page 34) that 'Communication rights-of-way may be needed for telephone landlines, cell phone towers, microwave towers, television/radio antennas and transmitters, other communication channels, and access to the sites required for the facilities and equipment.' This general policy is further detailed in policies 22-1, 22-2 and 22-3 on page 35 of the draft plan.

ANTC's proposal also conforms to the BLM's *Central Nevada Communication Sites Modified Final Plan Amendment for the Battle Mountain District Office* dated August 21, 1998.

1.10 Purpose and Need

The BLM's purpose in considering ANTC's right-of-way (ROW) application is to determine if the proposed project constitutes legitimate and appropriate use of the public lands. Legitimate uses are those authorized under the Federal Land and Policy Management Act of 1976⁶ as amended (FLPMA), or other public land acts. Approved leases must meet the proponent's objective while preventing undue and unnecessary public land degradation.

Under its FLPMA mandate to manage public lands for multiple uses, the BLM must consider the proponent's ROW applications. FLPMA section 501(a)(5) authorizes the BLM to grant, issue, or renew ROWs for 'systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communication.'

The proponent's objective and project justification is to expand existing microwave and radio network systems to support current and future operational needs across northern Nevada, and to bring wireless internet capabilities to three under-served site vicinities. Improved service would benefit both local residents and travelers by increasing range of and ease of access to these modern communications channels.

Many northern Nevada communities are presently underserved or have no internet service. Emergency Services are hampered in certain areas because radio communication is lacking. Travelers are beyond communications networks on many roads between smaller towns.

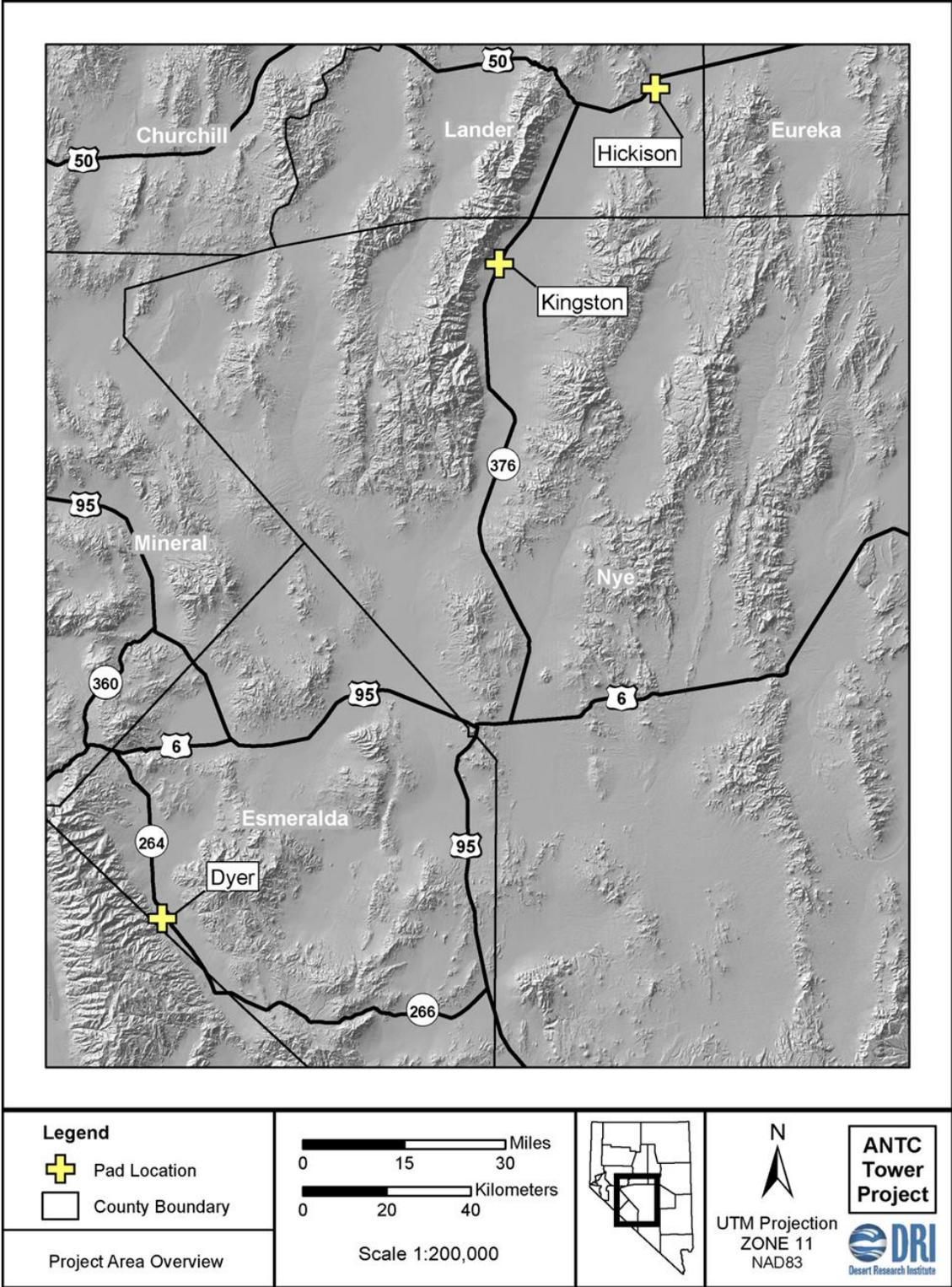
1.11 Scoping, Public Involvement and Issues

During a 17 January 2013 meeting with the BLM interdisciplinary team the following issues were highlighted:

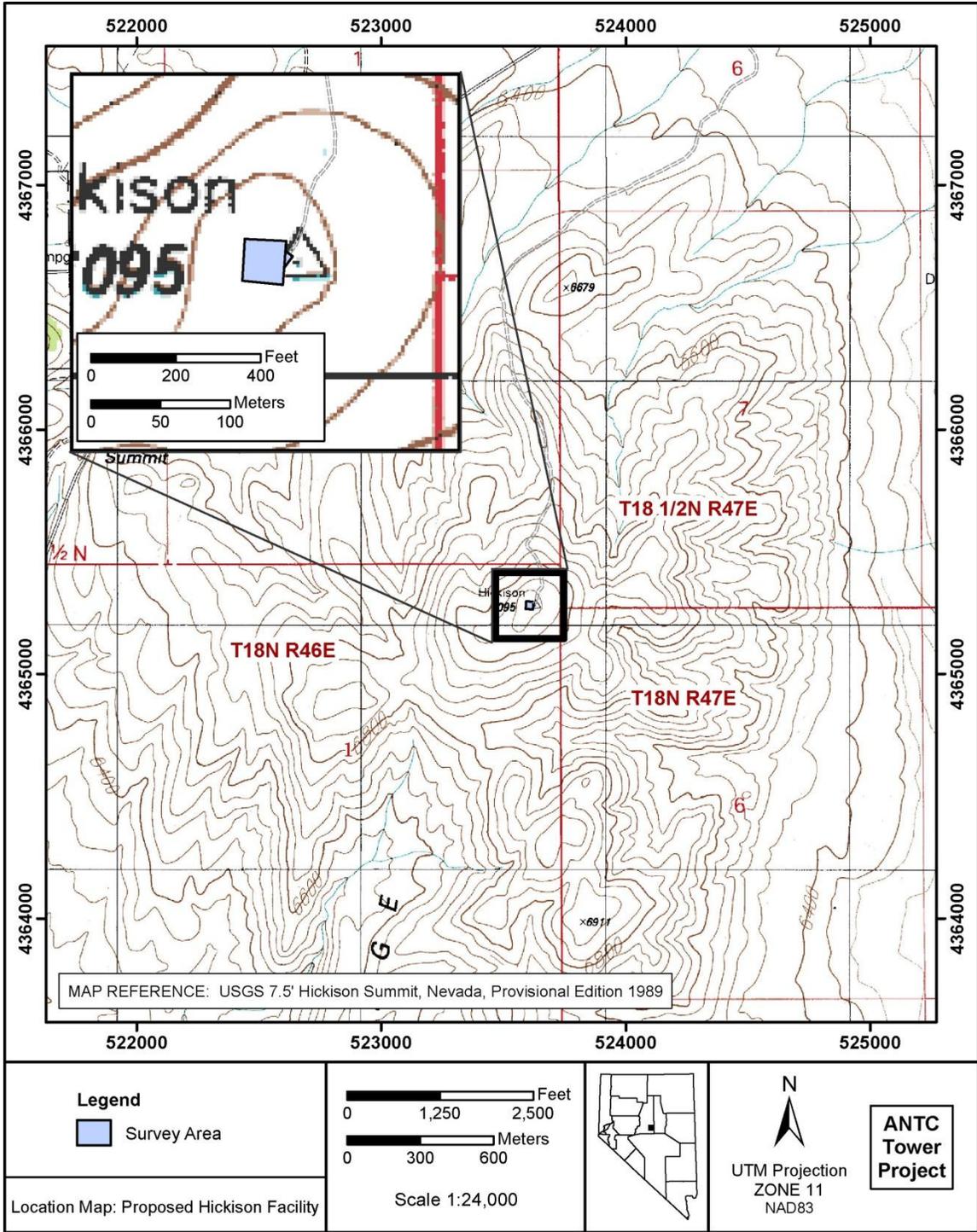
- Determine potential project-related impacts to greater sage grouse (*Centrocercus urophasianus*)⁷ and their habitat in the Hickison Summit and Kingston site vicinities;
- Determine potential project-related impacts to migratory birds and other wildlife inhabiting the proposed site vicinities;
- Determine presence of special status species and analyze related impacts resulting from the project;
- Determine potential for project-related spread of noxious or invasive non-native weeds;
- Determine potential project-related visual impacts; and
- Determine potential project-related impacts on local cultural resources.

⁶ Public Law 94-579 (Federal Land and Policy Management Act of 1976) 43 U.S.C. 1701-1785

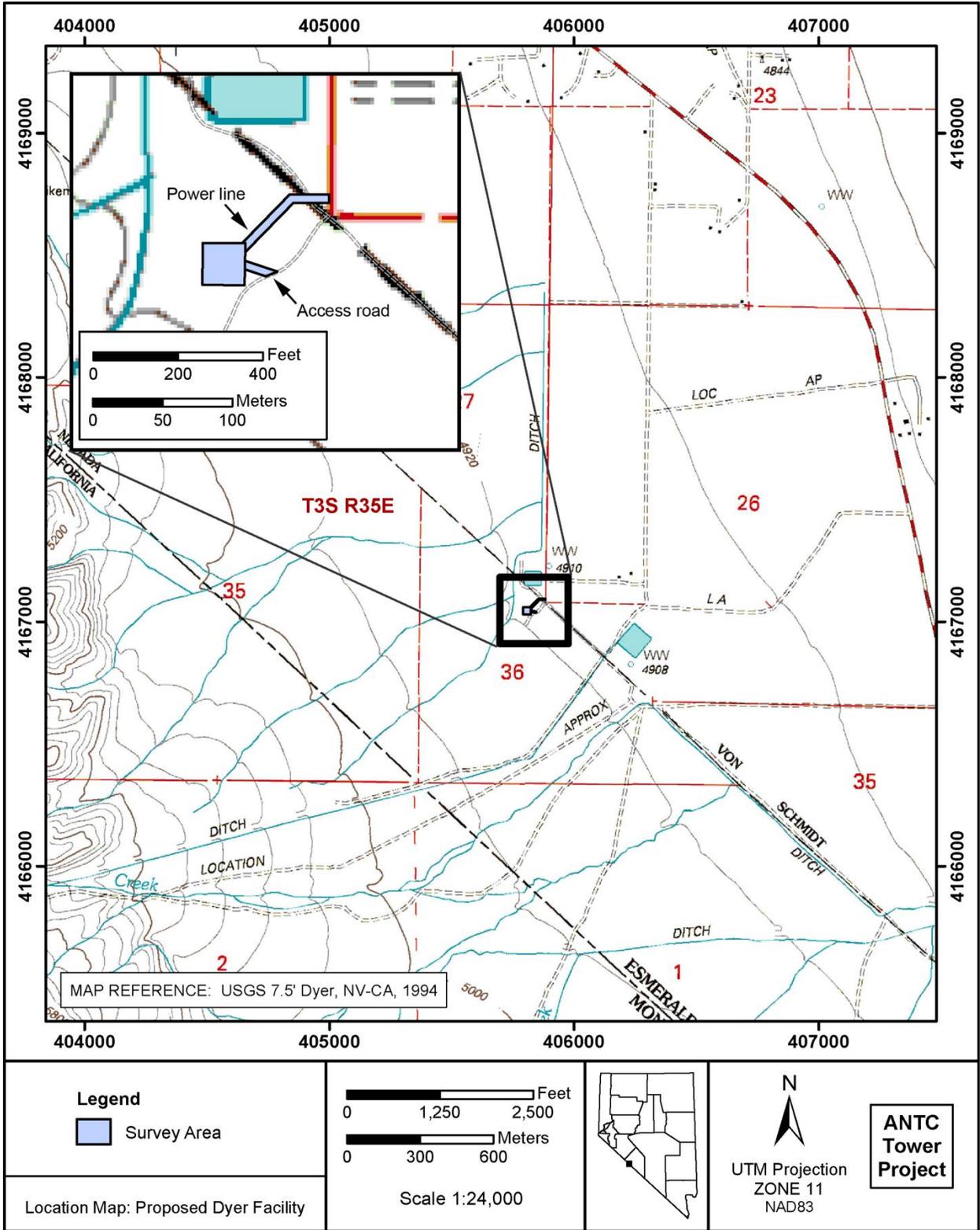
⁷ Candidate species for listing under the Endangered Species Act of 1973 (Public Law 93-205)



Map 1. Locations of proposed ANTC telecommunications facilities in Lander, Nye and Esmeralda counties, Nevada.



Map 2. Proposed location of ANTC Hickison Summit telecommunications facility, Lander County, Nevada.



Map 4. Proposed location of ANTC Dyer telecommunications facility, Esmeralda County, Nevada.



Photo 1. Overview of proposed ANTC Hickison Summit facility site, Lander County, Nevada. Proposed site is behind existing facility. View to north.



Photo 2. Overview of proposed ANTC Kingston facility site, Nye County, Nevada. Proposed site lies just beyond near power line. View to north.



Photo 3. Overview of proposed ANTC Dyer facility site, Esmeralda County, Nevada. Stake marks center of proposed site. View to northeast.

Chapter 2 Proposed Action & Alternatives

2.1 Proposed Action

Hickison Summit

Located in the northern end of the Toquima Range near US Highway 50, the *Hickison Summit* facility would consist of an unfenced 100-foot-square area (10,000 square feet; approximately 0.23 acre) containing an unlighted, 100-foot-tall, self-supporting steel lattice tower; a 10-foot by 26-foot radio equipment shelter; a 4-foot by 6-foot concrete pad supporting a back-up propane generator; two 3-foot by 6-foot concrete pads supporting one 500-gallon propane tank each; and an approximately 20-foot by 30-foot solar field consisting of 40 photovoltaic solar panels and batteries.

Access would be via the existing dirt track connecting US Highway 50 to a previously installed, 60-foot-tall Nevada Department of Transportation (NDOT) microwave relay tower on Hickison Summit.

A total permanent disturbance area of 0.23 acre is anticipated.

Estimates of personnel and equipment required to construct a typical ANTC facility appear in Table 1.

Kingston

Situated near the intersection of Nevada State Route 376 and an unnamed dirt road on the western margin of the Big Smoky Valley, the *Kingston* facility would consist of a barbed-wire-topped, 6-foot-high chain link-fenced 100-foot-square area (10,000 ft²; 0.23 acre). Enclosed within would be a 120-foot-tall, self-supporting steel lattice tower and an 8-foot by 16-foot equipment shelter and meter bank resting on two concrete footers.

A 20-foot-wide by 210-foot-long (4200 ft²; 0.1 acre) access road would be cut northeast from the unnamed road to the facility site. An approximately 200-foot-long overhead or buried power line⁸ would connect the site to existing power paralleling the unnamed road's north side. The new 20-foot wide power line corridor would initially run diagonally from the existing electrical supply to the new access road (approximately 40 ft.), and would thereafter follow the west side of the new access road to the site itself. New, separate disturbance associated with the power line would be 800 square feet (0.018 acre), after which the remaining run would be within the access road corridor. Total new disturbance associated with this facility would be about 0.35 acre.

⁸ Local electric utility Sierra Pacific Power will apply for the power line right-of-way.

Table 1. Estimates of personnel and equipment used to construct a typical ANTC tower facility.

| Function | Personnel | Equipment/Tonnage |
|-------------------------------------|------------------|---|
| Grubbing, leveling & debris removal | 3 people/2 days | Backhoe tractor/10 tons 2 pick-up trucks |
| Foundation digging | 3 people/2days | Track excavator/20 tons Front end loader/20 tons 2 pick-up trucks |
| Foundation construction | 4 people/7 days | Semi-truck w/trailer/40 tons Crane truck/20 tons Water truck/up to 4000 gal Compactor (stand behind) Generator/<12kw 3 pick-up trucks |
| Concrete placement | 22 people/2 days | Concrete pump truck/20 ton Up to 15 concrete mixer trucks/300 tons Water truck/up to 4000 gal Generator/<12kw 3 pick-up trucks |
| Backfilling & leveling | 3 people/2 days | Front end loader/20 tons Water truck/up to 4000 gal Compactor (stand behind) 2 pick-up trucks |
| Tower assembly | 6 people/7 days | Truck crane/20 tons All terrain fork lift/10 tons Generator/<12kw 3 pick-up trucks |
| Tower erection | 10 people/2 days | All terrain crane/40 tons Support transport (2 flat bed semi-trailers)/40 tons All terrain fork lift/10 tons Generator/<12kw 5 pick-up trucks |
| Shelter foundation | 3 people/4 days | Up to 4 concrete mixer trucks/80 tons Backhoe tractor/10 tons Generator/<12kw 2 pick-up trucks |
| Shelter placement | 8 people/1 day | Semi-truck w/trailer/40 tons All terrain crane/40 tons Generator/<12kw 5 pick-up trucks |
| Final grading/Rehabilitation | 3 people/2 days | Backhoe tractor/10 tons 2 pick-up trucks |

Dyer

Located along the southwestern edge of the Dyer settlement, the proposed *Dyer* compound would consist of a fenced (as at Kingston) 100-foot-square area (0.23 acre). Contained within would be a self-supporting 195-foot-tall steel lattice tower and 10-foot by 16-foot radio equipment shelter with meter bank on two concrete footers. Access would be via a new 20-foot-wide by 100-foot-long dirt road (0.046 acre) spurring from an existing track passing southeast of the site. A new 20-foot-wide by 225-foot-long (0.1 acre) electric service corridor would run from a nearby power line to the facility's northeast corner⁹. Total disturbance associated with this project would be approximately 0.38 acre.

2.1.1 Best Management Practices

To minimize impacts associated with establishing the proposed facilities, Best Management Practices (BMPs) would be followed. Construction timing would occur, to the extent feasible, outside of bird nesting seasons (1 March – 31 July for raptors and 1 April – 31 July for other species).

If construction must occur during bird nesting season, a qualified biologist would conduct a site survey no more than fourteen days prior to initiating construction. If the survey revealed presence of nesting birds, a BLM approved buffer zone¹⁰ would be established and maintained until the young have fledged and vacated the nest.

All construction related vehicles would be pressure washed to remove extraneous plant matter (e.g., noxious and invasive weeds) prior to entering a project site.

As part of site preparation, an approved weed barrier fabric would be placed on the site's footprint and covered with four to six inches (10.2 – 15.2 centimeters) of 'Type 2' crushed rock to discourage weed establishment. A water truck would be on-site to control dust generated during site preparation.

Natural color schemes would be used to reduce contrast between the facilities and surrounding landscapes.

2.2 No Action Alternative

The proposed telecommunications sites would not be constructed. Cell-phone and wireless Internet service in the affected areas would continue at present levels. The intent and purpose of the *Broadband Initiative Project* as it relates to ANTC's proposal would not be met.

⁹ Local electric utility Valley Electric Association will apply for the power line right-of-way.

¹⁰ Generally 250 feet (76 meters) for passerine (perching) species; variable for raptors.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

Hickison Summit

Surrounding public and private lands were examined for possible alternative tower sites. Hickison Summit is the sole location fulfilling line-of-sight and distance requirements necessary to establish uninterrupted coverage between it and the proposed Kingston and Mary's Mountain¹¹ sites.

Consideration was given to co-locating the proposed ANTC facility onto the existing NDOT microwave relay tower on Hickison Summit. However, NDOT's facility is insufficient in height to provide necessary line-of-sight clearance with adjacent cell phone and wireless internet relay towers. In addition, NDOT's tower structure is incapable of supporting ANTC's microwave dishes. As a result, this approach was abandoned.

Kingston

Other locations in the vicinity of the now-proposed Kingston site were considered. There are no existing towers in this area and no other nearby location that meets the necessary between-tower distance and line-of-sight requirements for this facility. As a result, the Kingston Site is the sole location that can link coverage between the Hickison Summit and Fitzpatrick¹² sites.

Dyer

Consideration was given to attaching the proposed ANTC facility to the existing Valley Electric Association (VEA) telecommunications tower within the Dyer settlement. However, the existing VEA site does not contain sufficient space for and cannot otherwise accommodate the proposed ANTC microwave dishes.

¹¹ The Mary's Mountain site, located north of Carlin in Elko County, is owned by Enterprise Information Technology Services.

¹² The Fitzpatrick site, US Forest Service lease TON92, is located on USFS land approximately 15 miles south of Manhattan in Nye County.

Chapter 3 Affected Environment & Environmental Consequences

3.1 Project Site Descriptions

Hickison Summit

Located in southeastern Lander County, about one mile (1.6 km) east of US Highway 50 and situated at an elevation of nearly 7100 feet (2130 meters), the Hickison Summit site is located in the extreme northern tip of the Toquima Range, near Nevada's geographic center. From the site the northern terminus of the Big Smoky Valley lies west and the Monitor Valley lies east. The smaller Kobeh Valley is visible to the northeast. The intended project location is atop a knob of volcanic rock, mostly rhyolite, although some basaltic material is also apparent. Slope is to the west. Ground surface is rocky, local soil a shallow, rocky, sandy loam. Loosely to tightly consolidated desert pavements occur patchily on and around the site.

Vegetative cover is reasonably dense except where rock outcrops prevent establishment. However, and probably owing to the summit's uninterrupted exposure to wind, the vegetation is also quite stunted, i.e., typically less than about ten inches (25 centimeters) high unless growing in sheltered areas around large rocks. The dominant plant species is dwarf (low) sagebrush (*Artemisia arbuscula*), which comprises more than ninety percent of the site's cover. The primary sub-dominant is matchweed (*Gutierrezia sarothrae*). A small, unidentified bunch grass occurs as an occasional. Halogeton (*Halogeton glomeratus*) is common in and along the site access road and in disturbed areas around the Nevada Department of Transportation (NDOT) tower facility located immediately south of the proposed ANTC site.

Kingston

Located just north of milepost 73 on State Route 376, near an intersection with an unnamed ranch road on the west edge of Big Smoky Valley, the proposed Kingston site lies along the eastern base of the Toiyabe Range in northern Nye County. Site elevation is about 5600 feet (1680 m.). The landscape is essentially flat and slopes gently northeast.

Local soil is a loose, sandy loam containing pebbles, fragments and small cobbles of both igneous (granitics) and metamorphic (schist) rock types. Occasional fragments of quartz and small polished cobbles of dark chert, no doubt washed out of the adjacent mountains, are also apparent.

Rarely exceeding fifteen inches (38 cm) in height, budsage (*Artemisia spinescens*) and greasewood (*Sarcobatus vermiculatus*) co-dominate the local plant assemblage. Spiny hopsage (*Grayia spinosa*) is a common associate. Green ephedra (*Ephedra viridis*) and littleleaf horsebrush (*Tetradymia glabrata*) occur as occasionals, as does saltgrass (*Distichlis spicata*), of which small patches are irregularly apparent. Evening primrose (*Oenothera* sp.), desert globemallow (*Sphaeralcea ambigua*), Russian thistle (aka

tumbleweed, *Salsola tragus*) and halogeton are common in disturbed areas along the ranch road.

Several small sand cholla (*Grusonia pulchella*), a species considered rare by the Nevada Natural Heritage Program and sensitive by the Bureau of Land Management, were noted during a 2 May 2013 habitat assessment survey of the site and immediately surrounding area.

Dyer

Located in northwestern Esmeralda County, along the southwestern edge of the Dyer settlement on State Route 264, ANTC's proposed Dyer site virtually straddles the old Von Schmidt survey line formerly denoting the Nevada/California border. Situated slightly above 4900 feet (1470 m), the site lies immediately west of active agricultural areas. A wood pole power line and access road, which would supply electricity to the site and primary site access, passes between the farmlands and the proposed tower site. The White Mountains rise abruptly to the west.

The Dyer site lies on the toe of an alluvial fan eroded from the White Mountains. The ground is previously disturbed, possibly part of an old fire scar or abandoned field. Its well-spaced vegetation is dominated by four-wing saltbush (*Atriplex canescens*), with budsage and winterfat (*Krascheninnikovia lanata*) occurring as primary associates. Russian thistle heavily infests the area.

Local soil is loose loamy sand containing small pebbles and occasional cobbles of quartz, granitics and quartzite.

Lying in close proximity to local habitations – both residences and farms/ranches – the site and surrounding vicinity has been the recipient of considerable dumping. Indeed, the dirt track from which the Dyer site's access road would originate terminates in a substantial dump of household and agricultural trash. On adjacent private holdings, piles of assorted, cast-off farming/ranching equipment lie amidst a tangle of vegetation.

3.2 Issues

Table 2 denotes various issues and resources evaluated during project analysis. Following that are descriptions of affected environments and discussions of project-related environmental consequences regarding each present or affected issue and resource.

Table 2. Issues associated with constructing proposed Arizona Nevada Tower Corporation Hickison Summit, Kingston and Dyer telecommunications facilities in Lander, Nye and Esmeralda counties, Nevada.

| Issue | Not Present | Present/Not Affected | Present/May Be Affected | Rationale |
|---|--------------------|-----------------------------|--------------------------------|--|
| Air Quality | | | x | Analyzed below |
| ACECs | x | | | Projects not in ACECs |
| Cultural/Historical Resources | | | x | Analyzed below |
| Environmental Justice | x | | | No issues identified |
| Prime/Unique Farmlands | x | | | Projects not in P/U farmlands |
| Noxious Weeds/Invasive Non-Native Species | | | x | Analyzed below |
| Native American Religious Concerns | | x | | Analyzed below |
| Floodplains | x | | | Projects not on floodplains |
| Riparian/Wetlands | x | | | No riparian/wetland habitats on sites |
| Threatened/Endangered Species | x | | | No T/E species in project areas of influence. No suitable habitat. |
| Migratory Birds | | | x | Analyzed below |
| Solid/Hazardous Waste | | | x | Analyzed below |
| Water Quality | x | | | No water on sites. No wells to be drilled. |
| Wilderness | x | | | Projects not in wilderness areas |
| Wild/Scenic Rivers | x | | | No wild/scenic rivers in project areas of influence |
| Forests/Rangeland | x | | | Projects not in designated forests or rangelands |
| Human Health & Safety | | | x | Analyzed below |
| Grazing Mgmt. | | x | | Analyzed below |
| Land Use Authorization | | x | | Analyzed below |
| Minerals | x | | | No issues identified |
| Paleontological Resources | x | | | No paleontological materials on project sites |

| Issues | Not Present | Present/Not Affected | Present/May Be Affected | Rationale |
|------------------------|--------------------|-----------------------------|--------------------------------|----------------------|
| Recreation | x | | | No issues identified |
| Socio-Economic Values | | | x | Analyzed below |
| Soils | | | x | Analyzed below |
| Special Status Species | | | x | Analyzed below |
| Vegetation | | | x | Analyzed below |
| Visual Resources | | | x | Analyzed below |
| Wild Horses & Burros | | | x | Analyzed below |
| Wildlife | | | x | Analyzed below |

3.2.1 Air Quality

3.2.1.1 Affected Environment

The proposed project areas are within Clean Air Act¹³ air quality attainment areas for all criteria pollutants (www.epa.gov/oaqps001/greenbk/ancl.html).

3.2.1.2 Environmental Consequences

Short term increases in localized dust and hydrocarbon emissions (i.e., engine exhaust) would occur during site clearing and facility construction.

3.2.2 Cultural/Historical Resources

3.2.2.1 Affected Environment

Isolated features consisting of three 1954 U.S. Coast and Geodetic Survey cadastral markers were noted near the Hickison Summit site. A scattered prehistoric assemblage determined ineligible for listing in the National Register of Historic Places was noted on the Dyer site on 26 September 2012.

3.2.2.2 Environmental Consequences

The cadastrals are located outside the proposed ANTC project area and would not be affected. The prehistoric material would be displaced during construction. Recording and describing presence of these cultural resources completes required mitigation for their possible loss as a result of this project.

3.2.3 Noxious Weeds/Invasive Non-Native Species

¹³ Clean Air Act of 1963, as amended (Public Law 88-206)

Noxious weeds and invasive non-native species are plants that are highly competitive and easily spread. BLM defines a *noxious weed* as ‘a plant that interferes with management objectives for a given area at a given point in time.’ BLM recognizes the current noxious weed list designated by the State of Nevada Department of Agriculture (NDOA) statute found in the Nevada Administrative Code (NAC), Chapter 555, Section 10 (NAC 555.010)

An *invasive species* is defined as one not native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

3.2.3.1 Affected Environment

Noxious Weeds

Infestations of hoary cress (*Cardaria draba*) and Russian knapweed (*Centaurea repens*) have been identified along US Highway 50 near its junction with the site access road leading to the Hickison Summit site (BLM 2011d).

During a 1 May 2013 weed survey (A.L. Heindl, pers. obs.), no cress or knapweed was observed along US 50 within at least one mile (1.6 km) of its junction with the Hickison Summit access road. No cress or knapweed was observed at any point along the access road connecting US 50 with the intended Hickison Summit tower site.

Hoary cress, Russian knapweed and Scotch thistle (*Onopordum a. acanthium*) have been documented along Nevada State Route 376 near the proposed Kingston site (BLM 2011d).

No cress, knapweed or Scotch thistle was observed (A.L. Heindl, pers. obs.) during a 2 May 2013 weed survey of the intended site vicinity, which included at least one mile of SR 376 both north and south of the Kingston project area.

Tamarisk (aka saltcedar, *Tamarix rammosissima*) is commonplace in and around irrigated areas in the Dyer settlement (BLM 2011d).

Invasive, Non-Native Species

Halogeton occurs along the Hickison Summit access road and in disturbed areas adjacent to the Summit’s existing tower site (A.L. Heindl, pers. obs. 25 September 2012 and 30 April – 1 May 2013).

Halogeton and Russian thistle occur on the Kingston site and along the ranch road paralleling the site’s south side (A.L. Heindl, per. obs. 25 September 2012 and 2 May 2013).

Russian thistle is ubiquitous across the Dyer site and surrounding vicinity (A.L. Heindl, pers. obs. 26 September 2012 and 3 May 2013).

3.2.3.2 Environmental Consequences

Noxious weed assessments prepared for each site (Appendix 5) indicate low likelihood of new noxious weed populations establishing as a result of the proposed projects.

Hickison Summit

New disturbance associated with constructing the Hickison Summit facility may expose a small amount of new ground in which undesirable plant species could establish. Simultaneously, site preparation would cover the newly disturbed area with a weed barrier covered beneath four to six inches (10.2 – 15.2 cm) of crushed rock.

Kingston

Ground disturbance associated with constructing the Kingston facility may create new habitat into which undesirable plant species could spread. However, as at Hickison Summit, the site would be covered with rock to reduce the amount of newly disturbed habitat available to invasive plants.

Dyer

The Dyer site is not in an irrigated area and is too dry to support tamarisk.

As the intended ANTC site is already infested with Russian thistle, no new thistle habitat would be created by this project. The Dyer site would also be covered with rock to prevent weed establishment.

3.2.4 Native American Religious Concerns

3.2.4.1 Affected Environment

Project notification was sent to the Timbisha Shoshone tribe on 21 December 2012, and to the Yomba and Duckwater Shoshone tribes on 14 January 2013. A site visit was conducted with Duckwater Shoshone officials.

3.2.4.2 Environmental Consequences

The contacted tribes have voiced no concerns in regard to the proposed projects.

3.2.5 Migratory Birds

3.2.5.1 Affected Environment

Numerous migratory bird species, including raptors, may move through and forage across the general project areas. Although no evidence of on- or near-site bird nesting was noted during the 30 April – 3 May 2013 habitat assessment surveys, various species may nest on the project sites and surrounding terrain. No raptor perches occur within or closely adjacent to the intended facility sites.

Hickison Summit

The Nevada Department of Wildlife reports various raptor species residing in the Hickison Summit area (NDOW 2013). These¹⁴ include American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), Cooper's hawk (*Accipiter cooperii*), great horned owl (*Bubo virginianus*), long-eared owl (*Asio otus*), merlin (*Falco columbarius*), northern harrier (*Circus cyaneus*), northern saw-whet owl (*Aegolius acadicus*), osprey (*Pandion haliaetus*), prairie falcon (*Falco mexicanus*), red-tailed hawk (*Buteo jamaicensis*), rough-legged hawk (*Buteo lagopus*), sharp-shinned hawk (*Accipiter striatus*), short-eared owl (*Asio flammeus*), turkey vulture (*Cathartes aura*) and western screech owl (*Otus kennicottii*). NDOW (2013) also notes that American kestrel and northern harrier 'have been directly observed in the vicinity of the project area.'

No raptor nest sites are known in the project area (NDOW 2013).

Ravens, black-throated sparrows (*Amphispiza bilineata*) and a red-tailed hawk were seen during the 30 April – 1 May 2013 Hickison Summit survey.

Kingston

NDOW (2013a) reports American kestrel, barn owl, Cooper's hawk, great-horned owl, long-eared owl, merlin, northern harrier, northern saw-whet owl, osprey, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, turkey vulture and western screech owl 'have distribution ranges that include the (Kingston) project area and four-mile buffer.' NDOW reports presence of seven raptor nest sites 'in the vicinity of the project area.'

Black-billed magpies (*Pica pica*) were observed during a 25 September 2012 site survey at Kingston; ravens, horned larks (*Eremophila alpestris*) and a rough-legged hawk were noted during the 2 May 2013 Kingston survey.

Dyer

Local raptors in the Dyer area include American kestrel, barn owl, Cooper's hawk, great horned owl, long-eared owl, merlin, northern harrier, northern saw-whet owl, osprey, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, and turkey vulture (NDOW 2013b). NDOW reports direct observations of northern

¹⁴ Locally occurring 'sensitive' raptor species are discussed under 'Special Status Species.'

harrier, prairie falcon, red-tailed hawk and rough-legged hawk around the project area, but has not identified any nearby raptor nest sites.

Red-winged blackbirds (*Agelaius phoeniceus*), white-crowned sparrows (*Zonotrichia leucophrys*), a pair of red-tailed hawks and the remains (probable raptor kill) of a mourning dove (*Zenaida macroura*) were seen during the 26 September 2012 survey at Dyer. Red-tailed hawks, Say's phoebes (*Sayornis saya*), Audubon's (aka yellow-rumped or myrtle) warblers (*Dendroica coronata*), a western kingbird (*Tyrannus verticalis*) and a lone turkey vulture (*Cathartes aura*) were noted around the Dyer site during the 3 May 2013 survey.¹⁵

3.2.5.2 Environmental Consequences

Slightly less than one acre of currently available migratory bird foraging and nesting habitat would be lost if the three tower facilities were constructed.

Unless necessary, facility construction would not be scheduled to occur during the 1 March – 31 July bird nesting season. If construction must occur during the bird nesting season, a pre-construction site survey would be completed by a qualified biologist no more than fourteen days prior to initiating construction. If the survey revealed presence of nesting birds, a BLM approved buffer zone¹⁶ would be established and maintained until the young have fledged and vacated the nest.

Communications towers and power lines provide artificial perches for raptors and ravens, providing these predators with new platforms from which to prey on ground and shrub nesting species.

Facility construction would foster an increased potential for bird and bat/tower collisions and associated bird and bat mortalities.

3.2.6 Solid & Hazardous Waste

3.2.6.1 Affected Environment

Solid waste, e.g., construction scrap, will be generated by project construction. Some chemical waste, i.e., solvents, paints, etc. may also be generated. Petroleum products (fuel and lubricating oils) will be present during construction.

3.2.6.2 Environmental Consequences

¹⁵ The warblers and kingbird were found in a sagebrush thicket about 0.4 miles (0.64 km) south of the proposed facility site.

¹⁶ Generally 250 feet (76 meters) for passerine (perching) species; variable for raptors depending upon species involved.

Improper control and containment of project-generated waste could impact local soils, plants and wildlife. All waste material will be appropriately disposed of and not stored on site.

3.2.7 Human Health & Safety

3.2.7.1 Affected Environment

A primary objective of the 2009 American Recovery and Reinvestment Act (ARRA)¹⁷, under which the proposed projects are funded, is to improve the human environment.

3.2.7.2 Environmental Consequences

By establishing new cellular phone and wireless internet communication relay systems in the affected areas, the proposed facilities would expand local communication capabilities for both residents and the traveling public.

3.2.8 Grazing Management

3.2.8.1 Affected Environment

Livestock grazing currently occurs on each of the proposed ANTC sites. Domestic cattle (*Bos taurus*) droppings were noted at all three sites.

3.2.8.2 Environmental Consequences

Compared to the size of surrounding grazing allotments, the limited site acreage is negligible in terms of impacts to authorized animal unit months (AUMs) of grazing.

3.2.9 Land Use Authorization

3.2.9.1 Affected Environment

A previously authorized access road and NDOT micro-wave relay station are currently situated on Hickison Summit. State Highway 376 and a local access road, power lines and a buried water line are present near the proposed Kingston site. A power line and associated access road lie adjacent to the proposed Dyer site.

3.2.9.2 Environmental Consequences

No existing authorized facilities would be impacted by the proposed projects.

¹⁷ Public Law 111-5 ('Stimulus Act'), adopted by the 111th U.S. Congress, February 2009

3.2.10 Socio-Economic Values

3.2.10.1 Affected Environment

The proposed ANTC facilities are ARRA-funded projects and part of the *Broadband Initiative Project* – designed to extend internet capability to rural Nevada.

3.2.10.2 Environmental Consequences

Constructing and operating the proposed ANTC facilities would contribute toward fulfilling ARRA and Broadband Initiative Project objectives, and would expand local communications channels in the affected areas. These projects would assist local entrepreneurs in more easily connecting with customer bases, thereby enhancing their ability to compete in local and global economies. Increased access to project-generated broadband communication routes would reduce temporal and geographic communication barriers now faced by project-area residents; create opportunities for electronic learning; enhance access to various services and generally provide low cost access to the internet.

3.2.11 Soils

3.2.11.1 Affected Environment

Ground surface at the Hickison Summit site is rocky; local soil a shallow, rocky, sandy loam. Loosely to tightly consolidated desert pavements occur patchily on and around the site. Local soil at Kingston is a loose, sandy loam containing pebbles, fragments and small cobbles of both igneous (granitics) and metamorphic (schist) rock types. Occasional fragments of quartz and small polished cobbles of dark chert, no doubt washed out of the adjacent mountains, are also apparent. The Dyer site lies on the toe of an alluvial fan eroded from the White Mountains. The ground is previously disturbed, possibly part of an old fire scar or abandoned field. Local soil is loose loamy sand containing small pebbles and occasional cobbles of quartz, granitics and quartzite.

3.2.11.2 Environmental Consequences

Surface soils on 0.23, 0.35 and 0.38 acres, respectively, would be disturbed, displaced and rearranged as a result of clearing and leveling the three intended project sites. No soil would be removed from the sites. Local soils within the project site footprints would be covered with a weed barrier and four to six inches (10.2 – 15.2 cm) of crushed rock prior to project construction.

Existing surface soil structure and integrity would be altered. Soils within the project sites would be leveled and compacted. Presently on-site vegetation would be removed. Fossorial animals currently occupying the sites would be displaced or killed. A total of approximately 0.96 acre of current vegetation and wildlife habitat would be lost.

3.2.12 Special Status Species

3.2.12.1 Affected Environment

Nevada Natural Heritage Program Species of Concern

The Nevada Natural Heritage Program (NNHP - Appendix 1) cautions that the Hickison Summit project area may provide habitat for the dark sandhill skipper (aka saltgrass skipper, *Polites sabuleti nigrescens*), a butterfly deemed *vulnerable* by the Program¹⁸.

NNHP cites no records of special-status species occurring on or closely adjacent to the Kingston site.

NNHP cites no specific records of sensitive species on or closely adjacent to the Dyer site, but cautions that habitat may be locally available for the pale kangaroo mouse (*Microdipodops pallidus*), which the Program considers ‘imperiled’ and the BLM considers ‘sensitive’.

Nevada Department of Wildlife Species of Concern

Of the twenty two raptor species the Department (NDOW) lists as residing in the Hickison Summit area, six are also considered sensitive by BLM’s Battle Mountain District office. These are: burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), northern goshawk (*Accipiter gentilis*), peregrine falcon (*Falco peregrinus*) and Swainson’s hawk (*Buteo swainsoni*) (NDOW 2013). NDOW reports sightings of American kestrel and northern harrier in the project area. No raptor nest sites have been identified in the Hickison Summit site vicinity (NDOW 2013).

NDOW (2013) classifies the Hickison Summit area as ‘essential/irreplaceable’ greater sage grouse habitat. Sage grouse sign (scat) has been identified a short distance south of the previously established NDOT microwave facility. ANTC’s facility would be built immediately north of the NDOT site.

NDOW (2013a) cites records of five raptors considered sensitive by BLM as residing in the Kingston area. These are: burrowing owl, golden eagle, northern goshawk, peregrine falcon and Swainson’s hawk. NDOW further notes that ten raptor nests, two of which are turkey vulture nests, exist within about ten miles (16 km) of ANTC’s proposed site. The closest nest is about two miles distant.

Lands encompassing the proposed Kingston site are considered ‘low value habitat/transitional range’ for the greater sage grouse (NDOW 2013a).

¹⁸ This butterfly is not included in BMDO’s sensitive species list (BLM 2011 – Appendix 4).

NDOW (2013a) also notes that bighorn sheep – another BLM sensitive species – occupy upslope areas west of the proposed Kingston site.

Seven of BLM’s sensitive raptor species are reported by NDOW (2013b) to reside in lands around the Dyer site. They are: bald eagle (*Haliaeetus leucocephalus*), burrowing owl, ferruginous hawk, golden eagle, northern goshawk, peregrine falcon and Swainson’s hawk. NDOW further reports that ferruginous, red-tailed and rough-legged hawks, northern harriers, prairie falcons and golden eagles have been directly observed in this area. No raptor nest sites, however, have been identified in the project vicinity.

NDOW (2013b) considers the Dyer site as lying within habitat ‘unsuitable’ for greater sage grouse.

NDOW (2013b) also reports observations of the pallid bat – a BLM sensitive species – in the Dyer project vicinity.

Bureau of Land Management Sensitive Species

The Bureau of Land Management Battle Mountain District considers 106 species found within its jurisdiction to be sensitive. These include twenty-four mammals, sixteen birds¹⁹, five fish, two amphibians, seven mollusks, eleven insects and forty plants (BLM 2011 & Appendix 4).

Mammals

Battle Mountain District’s sensitive mammals include seventeen bats (Table 3). The pygmy rabbit (*Brachylagus idahoensis*) and pika (*Ochotona princeps*), dark and pale kangaroo mice (*Microdipodops megacephalus* and *M. pallidus*), Fish Spring and San Antonio pocket gophers (*Thomomys bottae abstrusus* and *T. b. curtatus*), and bighorn sheep (*Ovis canadensis*) are also considered sensitive.

Because ANTC’s proposed Hickison Summit and Kingston sites are situated in sagebrush habitats, presence of pygmy rabbits is possible there. The Dyer site hosts no suitable pygmy rabbit habitat, but a thicket of big sage located about 0.4 miles (0.64 km) south of the site could provide suitable habitat.

Lack of talus habitat on the three sites precludes presence of pika (*Ochotona princeps*).

Locations of the proposed ANTC facility sites appear to be outside the range of the dark kangaroo mouse (O’Farrell and Blaustein 1974), thus the proposed projects would pose no impact.

¹⁹ The southwestern willow flycatcher (*Empidonax traillii extimus*) is discussed under Threatened and Endangered Species.

Neither the Fish Spring nor San Antonio pocket gopher occurs in the site vicinities. These species are, respectively, known only from around San Antonio, approximately 6 miles (9.6 km) north of Tonopah in Nye County, and from Nye County's Little Fish Lake Valley about fifty miles (80 km) south of Hickison Summit.

Table 3. Nevada Bureau of Land Management, Battle Mountain District sensitive bat species potentially affected by proposed Arizona Nevada Tower Corporation telecommunications facilities at Hickison Summit, Kingston and Dyer in Lander, Nye and Esmeralda counties, Nevada.

| Species | Not Present | Potentially Pres./Site ¹ | Source | Notes |
|--|-------------|-------------------------------------|---|---------------------------|
| Pallid bat <i>Antrozous pallidus</i> | | x (1,2,3) | Hermanson & O'Shea 1983 NDOW 2013b | Reported in Dyer vicinity |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | | x (1,2,3) | Bradley et al. 2006 | |
| Big brown bat <i>Eptesicus fuscus</i> | x | | Kurta & Baker 1990 | Forested highlands |
| Spotted bat <i>Euderma maculatum</i> | | x (1,2,3) | Watkins 1977 | |
| Silver-haired bat <i>Lasionycteris noctivagans</i> | x | | www.wbwg.org Kunz 1982 | Forested areas |
| Western red bat <i>Lasiurus blossevillei</i> | | x (2,3) | www.batcon.org | Cottonwoods |
| Hoary bat <i>Lasiurus cinereus</i> | x | | Shump, Jr. & Shump 1982 | Wooded areas |
| California myotis <i>Myotis californicus</i> | | x (1,2,3) | Simpson 1993 | |
| Western small-footed myotis <i>Myotis ciliolabrum</i> | | x (1,2,3) | www.mnh.si.edu | |
| Long-eared myotis <i>Myotis evotis</i> | | x (1,2,3) | Manning & Jones, Jr. 1989 | |
| Little brown bat <i>Myotis lucifugus</i> | x | | Fenton & Barclay 1980 | Aquatic insect feeder |
| Fringed myotis <i>Myotis thysanodes</i> | | x (1,2,3) | O'Farrell & Studier 1980a | |
| Cave myotis <i>Myotis velifer</i> | x | | Fitch et al. 1981 | So. NV only |
| Long-legged myotis <i>Myotis volans</i> | | x (1,2,3) | Warner & Czaplewski 1984 | |
| Big free-tailed bat <i>Nyctinomops macrotis</i> | x | | Milner et al. 1990a | SE NV only |
| Western pipistrelle <i>Parastrellus hesperus</i> | | x (1,2,3) | www.mnh.si.edu | |
| Brazilian free-tailed bat <i>Tadarida brasiliensis</i> | | x (1,2,3) | Wilkins 1989a | |

¹: 1 = Hickison Summit, 2 = Kingston, 3 = Dyer

Bighorn sheep do not *occupy* the project areas (NDOW 2013, 2013a, 2013b). While bighorns may intermittently enter the Kingston site, this area is considered to be outside their usual range (NDOW 2013a). No bighorn sign was apparent at Kingston during the 2 May 2013 habitat assessment survey of public lands within one half mile (0.8 km) of the site (A.L. Heindl, pers. obs.).

Birds

Three of the sixteen bird species declared sensitive by BLM (Appendix 4) are unlikely to be found in the project areas and, therefore, would not be impacted by ANTC's projects.

Lack of open sandy flats in the proposed project areas reduces the likelihood of western snowy plover (*Charadrius alexandrinus nivosus*) occurrence.

There is no southwestern willow flycatcher habitat (riparian corridors) on any of ANTC's proposed facility sites.

Absence of large wood on the facility sites makes presence of Lewis woodpeckers (*Melanerpes lewis*) there unlikely.

The remaining thirteen bird species are addressed under *Environmental Consequences*.

Fish, Amphibians and Molluscs

Lack of watered or otherwise wet habitats on the proposed ANTC sites precludes presence of fish, amphibians and molluscs.

Insects

Battle Mountain District denotes eleven insects as sensitive (Appendix 4). As indicated in Table 4, only one (Big Smoky wood nymph – *Cercyonis oetus alkalorum*) is likely to be found on any of the proposed ANTC sites.

Plants

Review of the forty sensitive plant species (Table 5) found within Battle Mountain District reveals three that might reasonably be expected to occur in one or more of the proposed project vicinities. All three might occupy Hickison Summit; two might be found at Kingston and one might occur at Dyer. If facility construction occurs, these plant species could suffer associated habitat losses.

Table 4. Nevada Bureau of Land Management, Battle Mountain District sensitive insect species potentially affected by proposed Arizona Nevada Tower Corporation telecommunications facilities at Hickison Summit, Kingston and Dyer in Lander, Nye and Esmeralda counties, NV.

| Species | Not Present | Potentially Pres./Site ¹ | Source | Notes |
|---|-------------|-------------------------------------|--|--|
| Crescent Dunes Aegialian scarab <i>Aegialia crescenta</i> | x | | Gordon & Cartwright 1988; USFWS 2011 | Dune obligate |
| Aegialian scarab <i>Aegialia knighti</i> | x | | EOL 2013 | Dune obligate |
| Crescent Dunes aphodius scarab <i>Aphodius</i> sp. 2 | x | | ecos.fws.gov | Dune obligate |
| Big Smoky wood nymph <i>Cercyonis oetus alkalorum</i> | | x (2) | www.butterfliesandmoths.org | Known only from Big Smoky Valley, NV |
| White River wood nymph <i>Cercyonis pegala pluvialis</i> | x | | www.butterfliesofAmerica.com | White River riparian habitat |
| White Mtns. (Sierra) skipper <i>Hesperia miriamae longaevicola</i> | x | | www.butterfliesofAmerica.com | High elevations (>11,000 ft.) |
| Railroad Valley (Uncas) skipper <i>Hesperia uncas fulvapalla</i> | x | | www.butterfliesofAmerica.com | Known only from Railroad Valley, Nye Co. |
| White River Valley skipper <i>Hesperia uncas grandiosa</i> | x | | www.butterfliesofAmerica.com | Known only from White River Valley, NV |
| Great Basin small blue <i>Philotiella speciosa septentrionalis</i> | x | | www.butterfliesofAmerica.com | Known only from Lyon Co., NV |
| | | | | |

| Species | Not Present | Potentially Pres./Site ¹ | Source | Notes |
|--|-------------|-------------------------------------|-------------|---|
| Crescent Dunes serican scarab <i>Serica ammomenisco</i> | x | | USFWS 2011 | Known only from Crescent Dunes, Nye Co. |
| Sand Mountain serican scarab <i>Serica psammobunus</i> | x | | USFWS 2011a | Known only from Churchill Co., NV |

¹: 1 = Hickison Summit; 2 = Kingston; 3 = Dyer

Table 5. Nevada Bureau of Land Management, Battle Mountain District sensitive plant species potentially affected by proposed Arizona Nevada Tower Corporation telecommunications facilities at Hickison Summit, Kingston and Dyer in Lander, Nye and Esmeralda counties, Nevada.

| Species | Not Pres. | Pot. Pres./ Site ¹ | Source | Notes |
|--|-----------|-------------------------------|----------------------|--|
| Eastwood milkweed <i>Asclepias eastwoodiana</i> | | x (1,2) | www.heritage.nv.gov. | (<i>A. ruthiae</i>) Wide variety of open habitats |
| Cima milkvetch <i>Astragalus c. cimae</i> | x | | Kartesz 1993 | Known only from south end of Monitor Range |
| Needle Mtn. Milkvetch <i>Astragalus eurylobus</i> | x | | Kartesz 1993 | (<i>A. tephrodes</i>) Ranges north to southern Nye County. |
| Black woolypod <i>Astragalus fumereus</i> | x | | Kartesz 1993 | Ranges north to southern Nye County |
| Tonopah milkvetch <i>Astragalus pseudiodanthus</i> | x | | www.heritage.nv.gov | Sand obligate. Associated with <i>Sarcobatus</i> and salt desert scrub |
| Toquima milkvetch <i>Astragalus toquimanus</i> | x | | www.heritage.nv.gov | Known only from southern Toquima and Monitor ranges |
| Current milkvetch <i>Astragalus uncialus</i> | x | | Kartesz 1993 | NE Nye & adjacent White. Pine counties |
| Elko rockcress <i>Boechera falcifrucia</i> | x | | Kartesz 1993 | (<i>Arabis f.</i>) Central Lander & Elko counties |
| Monte Neva paintbrush <i>Castilleja salsuginosa</i> | x | | Kartesz 1993 | Known only from Steptoe Valley, White Pine County |
| Tecopa birdbeak <i>Cordylanthus tecopenis</i> | x | | www.heritage.nv.gov | Facultative wetland species |
| Goodrich biscuitroot <i>Cymopterus goodrichii</i> | x | | Kartesz 1993 | Toiyabe Mountains talus slopes |
| Nevada willowherb <i>Epilobium nevadense</i> | x | | Kartesz 1993 | Talus slopes, cliffs >7400' |
| Windloving buckwheat <i>Eriogonum anemophilum</i> | x | | Kartesz 1993 | Known only from Pershing, northern Lander & Humboldt counties |
| Beatly buckwheat <i>Eriogonum beatleyae</i> | | x (1) | www.heritage.nv.gov | Weathered slopes, clayey soils w/ Juniperus |
| Lewis buckwheat <i>Eriogonum lewisii</i> | x | | Kartesz 1993 | Known only from Elko County |
| Tiehm buckwheat <i>Eriogonum tiehmii</i> | x | | Kartesz 1993 | Known only from Silver Peak Range, Esmeralda County |

| Species | Not Pres. | Pot. Pres./ Site ¹ | Source | Notes |
|--|-----------|-------------------------------|---------------------|---|
| Sunnyside green gentian <i>Frasera gypsicola</i> | x | | Kartesz 1993 | Known only from Adams/McGill Res., Sunnyside, Nye County |
| Smooth dwarf greaseweed <i>Glossopetalon pungens glabrum</i> | x | | Kartesz 1993 | (<i>Forsellesia pungens</i>) Limestone cliffs & slopes |
| Sand cholla <i>Grusonia pulchella</i> | | x (1,2,3) | Kartesz 1993 | (<i>Opuntia p.</i>) Sand obligate. Known population near Hickison Summit, sandy soils elsewhere |
| Rock purpusia <i>Ivesia arizonica saxosa</i> | x | | www.heritage.nv.gov | (<i>Purpusia saxosa</i>) Southern Nye & Clark counties |
| Waxflower <i>Jamesia tetrapetala</i> | x | | Kartesz 1993 | (<i>J. americana</i>) >7000' in Ruby & Spring mountains |
| Lunar Crater buckwheat <i>Johanneshowellia crateriorum</i> | x | | www.eFloras.org | Known only from Lunar Crater, Nye County |
| Holmgren lupine <i>Lupinus holmgrenianus</i> | x | | www.calflora.org | Known only from south of project sites |
| Oryctes <i>Oryctes nevadensis</i> | x | | www.heritage.nv.gov | Known only from north and west of project sites |
| Low feverfew <i>Parthenium ligulatum</i> | x | | www.plants.usda.gov | Known only from Eureka County |
| Pahute Mesa beardtongue <i>Penstemon pahutensis</i> | x | | Kartesz 1993 | Known only from eastern & southern Nye County |
| Lahontan beardtongue <i>Penstemon palmeri macranthus</i> | x | | www.heritage.nv.gov | Known only from well northwest of project sites |
| Bashful beardtongue <i>Penstemon pudicus</i> | x | | Kartesz 1993 | Known only from Kawich Rng., Nye County |
| Tiehm beardtongue <i>Penstemon tiehmii</i> | x | | www.heritage.nv.gov | Known only from Shoshone Rng., Lander County |
| Clarke phacelia <i>Phacelia filiae</i> | x | | Atwood et al. 2002 | Known only from southern Nye, Lincoln & Clark counties |
| Least phacelia <i>Phacelia minutissima</i> | x | | www.heritage.nv.gov | Known only from Eureka & Elko counties; facultative wetland species |
| Williams combleaf <i>Polycytenium williamsiae</i> | x | | Kartesz 1993 | Known only from Washoe County |
| Blaine pincushion <i>Sclerocactus blainei</i> | x | | www.heritage.nv.gov | Known only from central and northeast Nye County |
| Tonopah pincushion <i>Sclerocactus nyensis</i> | x | | www.heritage.nv.gov | Known only from eastern Esmeralda and central Nye counties. |
| Natchlinger catchfly <i>Silene natchlingerae</i> | x | | www.heritage.nv.gov | Known only from northeast Nye, White Pine and Elko counties. |
| Holmgren smelowskia <i>Smelowskia holmgrenii</i> | x | | www.heritage.nv.gov | Cliffs, talus slopes >6500' |
| RR Valley globemallow <i>Sphaeralcea caespitosa williamsiae</i> | x | | Kartesz 1993 | Known only from Railroad Valley area, Nye County |
| Lone Mtn. goldenhead <i>Tonestus graniticus</i> | x | | www.heritage.nv.gov | Known only from Lone Mountain, Esmeralda County. Upper Pinyon/Juniper zone |
| Current Summit clover <i>Trifolium andinum podocephalum</i> | x | | www.heritage.nv.gov | Known only from Currant Summit, northeastern Nye County |
| Rock violet <i>Viola lithion</i> | x | | www.heritage.nv.gov | Known only from subalpine conifer zone |

¹: 1 = Hickison Summit; 2 = Kingston; 3 = Dyer

3.2.12.2 Environmental Consequences

Nevada Natural Heritage Program Species of Concern

Dark sandhill skipper butterflies are typically associated with alkali grasslands (www.butterfliesandmoths.org), thus the species' presence is questionable on Hickison Summit where only small, scattered patches of saltgrass occur. However, because the skipper has also been associated with sagebrush habitats, its local presence cannot be dismissed. Although no evidence of the butterfly was noted during the 30 April – 1 May 2013 Hickison area survey of lands within one-half mile (0.8 km) of the site (A.L. Heindl, pers. obs.), if the proposed facility is constructed the skipper's habitat base could be reduced by 0.23 acre.

Presence of the pale kangaroo mouse at the Dyer site is doubtful. Hall (1946) and Hafner et al. (2008) report this mouse as typically associated with habitats of fine sand supporting shadscale (*Atriplex confertifolia*) and greasewood. Hafner et al. also consider the mouse a sand *obligate*, i.e., a species *requiring* habitats of loose sand. Though soil on the Dyer site is somewhat sandy, the site is not a sand habitat and neither of the mouse's apparently requisite plants is present there. As a result, it appears unlikely that constructing the Dyer facility would impact this species.

Nevada Department of Wildlife Species of Concern

Recent habitat assessment surveys confirm use of the Hickison Summit site *vicinity* by greater sage grouse. As a result, it must be concluded that constructing the proposed facility will decrease local sage grouse habitat by 0.23 acre.

The facility's potential impact on local raptors is less clear. If the facility is constructed, local raptor foraging habitat would be reduced by 0.23 acre, but the facility could also create new raptor perching and nesting opportunities. This, in turn, could produce an additional impact on local sage grouse use.

As no evidence of sage grouse was found during survey of the Kingston site and associated habitat assessment area it seems unlikely that constructing the proposed facility would negatively impact the bird.

If the Kingston facility were constructed, it would occupy 0.35 acre of current raptor foraging area. Simultaneously, the facility could provide new raptor perching and nesting opportunities.

Constructing the Dyer facility would cause loss of 0.38 acre of raptor foraging habitat, but could also provide new perching and nesting opportunities.

The constructed Dyer facility would not alter pallid bat roosting areas (typically caves, adits, mine shafts and crevices; occasionally trees), thus local bat populations are unlikely

to be materially affected by its presence. The facility would, however, constitute a new obstacle to locally foraging pallid bats.

Battle Mountain District BLM Sensitive Species

Mammals

Eleven of the seventeen bat species considered sensitive by Battle Mountain District, BLM (Table 3) *might* occur in any of the project vicinities. Pallid bats have been observed in the Dyer project vicinity (NDOW 2013b). However, because construction of the proposed facilities would not displace bat roosting habitats, and the facilities' presence and operation would impose only small change to the existing landscape, the project's potential to adversely impact bats appears minimal, and is probably limited to locally increasing the likelihood of bat/tower collisions and associated bat mortalities.

Lack of the pygmy rabbit's preferred habitat (mature, closed canopy big sagebrush [*Artemisia tridentata*] communities – see, for example, Green and Flinders 1980, Keinath and McGee 2004) on ANTC's proposed sites reduces the likelihood of pygmy rabbit presence thereon. However, because pygmy rabbits may also be found in association with other *Artemisia* varieties, as well as greasewood (*Sarcobatus* sp.) and even rabbitbrush (*Chrysothamnus* sp.) (<http://animaldiversity.ummz.umich.edu>), possibility of pygmy rabbit occurrence at Hickison Summit and Kingston cannot be summarily dismissed. Site surveys (30 April – 1 May 2013 at Hickison Summit; 2 May 2013 at Kingston), however, failed to reveal any evidence of the species on these sites.

A thicket of big sagebrush lying 0.4 miles southeast of the Dyer site *may* provide habitat suitable for *Brachylagus*, although a 3 May 2013 examination of thicket margins and some interior edges did not reveal any scat, forms or burrows (A.L. Heindl, pers. obs.). Running mostly parallel to the adjacent, irrigated fields, the thicket is isolated, generally narrow (average width < 25 feet or 7.6 meters), and only about 1500 feet (456 m) long. Formerly more extensive, some of the thicket has already been removed. In addition, the local power line access road dissects the thicket's long axis and a dirt track diverging from the power line road transects the thicket's narrow axis near the middle.

If this thicket does support a pygmy rabbit population, those rabbits would become more vulnerable to raptors using the Dyer tower as a perch.

Environmental consequences regarding the pale kangaroo mouse are discussed above (see Nevada Natural Heritage Program).

Birds/Raptors

Sixteen bird species, including seven raptors, are considered *sensitive* by Battle Mountain District (Appendix 4).

Any of the seven raptors might periodically forage across the three proposed project areas. Red-tailed hawks, a rough-legged hawk and one turkey vulture were observed during the 30 April – 3 May 2013 site surveys.

No raptor nesting sites are known in the Hickison Summit area (NDOW 2013) and, except for the existing NDOT tower facility, the local project vicinity offers no nesting or elevated perching habitat. As a result, constructing the Hickison facility does not appear likely to materially interfere with local raptor activities.

Numerous raptors are known to reside in the Kingston site vicinity and ten local raptor nests have been identified by NDOW (2013a). However, the nest closest to the proposed facility site is about two miles (3.2 km) northwest.

Similarly, while an assortment of raptor species is present around the Dyer settlement, no raptor nests have been identified in or near the Dyer project vicinity (NDOW 2013b).

As none of the three sites presently contain raptor perches or nesting locations, impacts generated by facility construction would likely be limited to loss of currently available foraging area equivalent to the sites' footprints (0.23, 0.35 and 0.38 acres, respectively).

Conversely, the towers may provide raptors with new perching and nesting sites.

Greater Sage Grouse

BLM (2011a) notes that the Hickison Summit and Kingston sites lie within 'suitable sagebrush habitat' for the greater sage grouse, and that an active sage grouse 'lek' (courtship area) lies approximately 2.25 miles (3.6 km) west of the Hickison Summit site. The lek closest to the Kingston site is about fifteen miles (24 km) east, in the Toquima Mountain range on the opposite side of Big Smoky Valley. The Dyer site lies well outside of suitable sage grouse habitat, with the closest known sage grouse lek more than fifteen miles (24 km) north.

An undated map supplied by Battle Mountain Field Office (Kula, pers. comm.) depicts the Hickison Summit site as lying completely within 'Preliminary Priority Habitat (PPH) for sage grouse. Six leks (including the above-described) are shown within about six miles (9.6 km) of the site – three ranging in distance from 2.25 to 3.25 miles (3.6 – 5.2 km) to the west and southwest, two about 3.5 miles (5.6 km) southeast and one about six miles (9.6 km) north. A similar map of the Kingston site area depicts the Kingston site as lying outside sage grouse habitat, with Preliminary General Habitat (PGH) for sage grouse lying slightly more than one half mile (0.8 km) west in the Toiyabe Range foothills.

Habitat assessment surveys conducted 30 April – 1 May 2013 at Hickison Summit, 2 May 2013 at Kingston and 3 May 2013 at Dyer confirm presence of sage grouse habitat at Hickison, presence of marginal sage grouse habitat at Kingston and lack of sage grouse habitat at Dyer (A.L. Heindl, pers. obs.). Constructing the Hickison Summit facility

would cause direct loss of 0.23 acres of greater sage grouse habitat and could indirectly alter the value of closely adjacent habitat. Constructing the Kingston facility would cause loss of 0.35 acres of possible sage grouse habitat.

Other Bird Species

Although pinyon jays (*Gymnorhinus cyanocephalus*) are known to intermittently use adjoining sagebrush habitats, these birds typically prefer pinyon (*Pinus monticola*) and juniper (*Juniperus* sp.) woodlands (Peterson 1990). Likely pinyon jay habitat occurs about a mile (1.6 km) west of the Hickison Summit site in the Simpson Park Mountains, so occasional presence of jays at Hickison is a reasonable expectation. The facility's presence would constitute a loss of roughly one-quarter acre of marginal jay habitat.

Similarly, pinyon jays might occasionally move through the Kingston site vicinity. However, lack of pinyon/juniper habitat greatly reduces the chance of its being occupied by jays.

There is no suitable pinyon jay habitat on or adjacent to the proposed Dyer facility site.

Generally lacking the requisite 'lookout posts' (trees, fence posts, tall brush, etc.) routinely exploited by loggerhead shrikes (*Lanius ludovicianus*), the Hickison Summit site's low-growing vegetation probably offers only low value shrike habitat. As a result, there is small likelihood that constructing Hickison would adversely impact local shrike populations.

Presence of ample 'lookouts' adjacent to the Kingston and Dyer site vicinities may provide local shrikes with locally usable habitat. Facility construction would not remove these habitat elements, but would reduce shrike foraging area by 0.35 acre and 0.38 acre, respectively.

Winter presence of the black rosy finch (*Leucosticte atrata*) in the Hickison Summit and Kingston vicinities is possible. But as this bird breeds at much higher elevations, the primary threat posed by constructing these facilities appears to be their potential occupation of 0.23 acres, each, of possible winter foraging habitat. The Dyer site lies outside the finch's acknowledged range.

Sage thrasher (*Oreoscoptes montanus*) presence is possible at the Hickison Summit and Kingston sites. However, as local ground cover consists of dwarf sagebrush (Hickison) and bud sage/greasewood (Kingston) rather than the thrasher's preferred big sage (Buseck et al. 2004), and thus provides little cover, the value of these sites as breeding habitat is questionable. Sage thrashers may well use the sites for foraging.

The mature big sage thicket south of the Dyer site could provide nesting habitat for sage thrashers, but no suitable sage thrasher habitat exists on the Dyer site itself.

Generally considered a sagebrush obligate (Hansley and Beauvais 2004), Brewer's sparrow (*Spizella breweri*) is a potential occupant of the Hickison Summit site vicinity during breeding season. As a result, constructing the proposed facility there has the potential to reduce local sparrow habitat by about a quarter-acre. The bird's presence is less likely, but still possible, at Kingston and Dyer where similar habitat losses may accrue if the proposed facilities are built.

Fish, Amphibians and Mollusks

Lack of wet habitats on the three sites under consideration precludes presence of the five fish, two amphibians and seven mollusks considered *sensitive* by Battle Mountain District (Appendix 4).

Insects

The Big Smoky wood nymph is known only from the Big Smoky Valley and, as a result, the butterfly's occurrence at the Kingston site is likely. If the Kingston facility is constructed, the nymph would lose 0.35 acres of home range.

Plants

The proposed sites and surrounding vicinities were surveyed for the three potentially occurring sensitive plant species (Table 5) on 30 April – 1 May 2013 (Hickison Summit), 2 May 2013 (Kingston) and 3 May 2013 (Dyer). Scattered occurrence of sand cholla was noted in the Kingston site *vicinity*, but the plant was not found on the proposed site itself. No other sensitive plant species were located on any site.

If the Kingston site is constructed, 0.35 acres of sand cholla habitat would be lost.

3.2.13 Vegetation

3.2.13.1 Affected Environment

Constructing the proposed ANTC facilities would cause complete removal of 0.23, 0.35 and 0.38 acres of local vegetation from the intended project sites.

Vegetation on the Hickison Summit site appears to be a reasonably intact community of largely native species dominated by dwarf sagebrush. Snakeweed is the primary associate.

Vegetation on the Kingston site consists primarily of budsage and greasebush, with spiny hopsage, green ephedra and littleleaf horsebrush occurring as primary associates. The Kingston site is heavily used by cattle; the local plant community may have been somewhat altered as a result.

Four-wing saltbush and Russian thistle dominate the Dyer site. Budsage and winterfat occur as associates. The Dyer site appears to lie within an old fire scar. The area is heavily impacted by human activity (dumping) and displays ample evidence of use by cattle and horses.

3.2.13.2 Environmental Consequences

Site surface clearance would cause loss of 0.23, 0.35 and 0.38 acres of vegetation and associated grazing area and wildlife habitat. Newly disturbed ground could provide new opportunities for invasion by both noxious weeds and invasive/non-native plant species.

3.2.14 Visual Resources

3.2.14.1 Affected Environment

Hickison Summit

The proposed Hickison Summit site lies in Visual Resource Management (VRM) Class IV lands (Graham, pers. comm.). BLM objectives for Class IV lands are to ‘Provide for management activities (sic) which require major modification of existing land character of landscape. Level of change to characteristic landscape can be high’ (BLM 2011c).

Approaches to Hickison Summit are presently dominated by broad vistas of valleys and close-by and distant mountains and ridgelines. Except for periodic road signs, side road junctions, the occasional distant ranch building and the existing NDOT Hickison Summit facility, there is little to distract the traveler from the natural setting. Because the landscape here is large and expansive, these relatively speaking small intrusions are quickly superseded by the natural setting.

Kingston

The proposed Kingston site lies within VRM Class III lands (Graham, pers. comm.), for which the objective is ‘Partially retain existing character of landscape; level of change to characteristic landscape should be moderate’ (BLM 2011c).

Currently, approaches to the Kingston site vicinity are highlighted by contrasts between the massive, often sharply rising Toiyabe Range front to the west, and the broad expanses of Great Smoky Valley and more distant Toquima Range to the east.

Irregularly spaced developments, including ranch houses and other ranch-associated buildings, ornamental trees and tree lines planted as windbreaks, ranching equipment, roads, fields and livestock attest the long human occupation of this region. Locally, the larger developments lie mostly to the east (Valley side) of SR 376, but occasional, mostly smaller developments dot lands west of the Highway and toward the mountain front.

Travel through this clearly rural and agricultural area is an unhurried affair, providing both residents and visitors with abundant opportunities to appreciate the true immensity of central Nevada's Basin and Range topography. And while the traveler's eye cannot help but notice the human element here, it is the natural features that dominate the field of vision.

Dyer

The proposed Dyer tower site is located in an area of mixed Visual Resource Management (VRM) Class III (on the east) and Class IV public lands (on the west) (Graham, pers. comm.). The BLM management objective for Class III lands is to "Partially retain existing character of landscape; level of change to characteristic landscape should be moderate", while the objective for Class IV lands is to "Provide for management activities (sic) which require major modification of existing character of landscape. Level of change to characteristic landscape can be high" (BLM 2011c).

Nevada State Route 264 provides primary access through the Dyer vicinity. The local landscape is underscored by stark contrasts between the flat Fish Lake Valley to the east, and the massive topography of the sharply rising White Mountains to the immediate west. Situated between the two, and visible from a distance as an oasis of green on the edge of a dry, windswept valley, Dyer provides a traveler with almost a sense of relief.

3.2.14.2 Environmental Consequences

Hickison Summit

Constructing the Hickison Summit facility would add a second communications relay station on Hickison Summit, and further alter the natural setting of this VRM Class IV viewshed.

ANTC's facility would be visible to travelers on US 50 from a distance of about 9 miles (14.4 km) west and seven miles (11.2 km) east of Hickison Summit. The site would also be visible from some campsites in the Hickison Summit Petroglyph Recreation Area camp ground, located approximately 0.5 miles (0.8 km) west of US 50. Similarly, the tower site would be intermittently visible from local ranch roads.

Moving east from Austin, US 50 travelers would first begin to notice the tower site at about milepost 41 (Photo 1). From that point the facility would become increasingly visible (photos 2 & 3) until, at about milepost 45.5, it would be skylined in the center of the traveler's view. Beyond milepost 45.5 US50 swings north and local hills would block the tower from view until the traveler crested Hickison Summit, where the tower would again become visible on the right. East of Hickison Summit, the tower would be behind the traveler and out of sight.



Photo 4. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 41, Lander County, Nevada. Tower site is atop distant hill in photo center. View to northeast.



Photo 5. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 42, Lander County, Nevada. The Nevada Department of Transportation's microwave site is becoming visible atop the distant hill in photo center. From this vantage point, ANTC's facility would be directly behind NDOT's. View to northeast.



Photo 6. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 45.5, Lander County, Nevada. Nevada Department of Transportation’s microwave relay station, located immediately south of the ANTC site, is plainly visible on the hill in photo center. View to northeast.

Westbound travelers on US 50 would begin to see the tower site at about milepost 57, near the Eureka/Lander County line (Photo 4). At that point, however, the distant Toiyabe Range dwarfs the nearby Toquimas and the tower, though noticeable, would probably have little impact on the overall view. At about milepost 54.4 (Photo 5) the angle of view from the Highway projects the Toquima foothills above the Toiyabes, skylining the tower. This scenario generally continues during the approach to Hickison Summit, although the tower site also gradually drifts into the left (south) portion of the viewshed, making it somewhat less intrusive. At about milepost 50 (Photo 6), the tower’s proximity would clearly draw the eye.

The proposed tower site would be visible (Photo 7) from some lower campsites in the Hickison Summit Petroglyph Recreation Area campground, located just north of Hickison Summit and about 0.5 mile (0.8 km) west of US 50. Campground views of the tower site are, however, frequently shielded by pinyon pine (*Pinus monticola*) and juniper (*Juniperus occidentalis*) trees shading the campsites.



Photo 7. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 milepost 57.1 (Ackerman Canyon Road), Lander County, Nevada. Tower site is at photo center, atop the highest hill in the near (Toquima) range. View to southwest.



Photo 8. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 54.4 (Grimes Ranch Road), Lander County, Nevada. Tower site is atop hill in photo center. View to southwest.



Photo 9. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 49.9 (Dry Creek Road), Lander County, Nevada. The Nevada Department of Transportation microwave relay station, located immediately right (south) of the ANTC site, is clearly visible. View to south.



Photo 10. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from a lower *Hickison Summit* Petroglyph Recreation Area campsite, Lander County, Nevada. The Nevada Department of Transportation microwave relay facility, located immediately right of the ANTC site, is plainly visible. View to south.

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating

the proposed tower site or modifying the tower height. Consideration has already been given to using the existing Nevada Department of Transportation facility on Hickison Summit. However, NDOT's tower is incapable of supporting ANTC's microwave dishes.

The galvanized steel tower would have a dull appearance. If painting were required, colors would be selected from the BLM Standard Environmental Color Chart or an approved Federal Communications Commission (FCC) color scheme.

Kingston

Constructing the Kingston facility would result in placing a 120 foot-high (36.6 m) tower adjacent to NV SR 376 near the edge of Big Smoky Valley and the base of the Toiyabe Range, introducing a new visual intrusion into this VRM Class III viewshed.

If established, ANTC's Kingston facility would first become visible to southbound travelers on SR 376 between mileposts 77 and 76 (Photo 1). Initially, the 120-foot high tower would not be particularly intrusive, but it would gradually become larger and more visible during the approach to milepost 73, roughly opposite the tower site.

Northbound SR 376 travelers would begin to notice the tower at about milepost 71 (Photo 2). At that point it would be largely masked by the Toiyabe front, but would become more prominent as milepost 73 was neared. In close proximity to milepost 73, the northbound angle of view from SR 376 might briefly project the tower above the natural skyline.

People living along the ranch road adjacent to which the tower site would be located would find a new and permanent intrusion into their easterly viewshed (Photo 3). From their vantage point the tower would project well above the existing power poles and into their view of Big Smoky Valley.

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating the proposed tower site or modifying the tower height.

The galvanized steel tower would have a dull appearance. If painting were required, colors would be selected from the BLM Standard Environmental Color Chart or an approved Federal Communications Commission (FCC) color scheme.



Photo 11. Proposed Arizona Nevada Tower Corporation *Kingston* tower site from milepost 76 on Nevada State Route 376, Nye County. The site would be located slightly left of the point at which the highway fades from view in photo center. From this position the 120-foot high tower would be only slightly visible against the alluvial fans emanating from Park and Trail canyons in the Toiyabe Range. View to southwest.



Photo 12. Proposed Arizona Nevada Tower Corporation *Kingston* tower site from milepost 71 on Nevada State Route 376, Nye County. The tower would be located just above the point at which the highway fades from view in photo center. From this perspective the tower would be largely invisible against the alluvial fan sloping east from the Toiyabe Range. View to northeast.



Photo 13. Proposed Arizona Nevada Tower Corporation *Kingston* tower site from unnamed ranch road west of milepost 73 on Nevada State Route 376, Nye County. Tower site location is just left (north) of the ranch road/SR 376 junction in photo center. From this vantage point the 120-foot high tower would project well into the bare flat of Great Smoky Valley. View to southeast.

Dyer

Constructing the Dyer site would place a 195 foot-high (59.5 m) tower between NV SR 264 and the White Mountains. Although generally blocked from view by existing ranch and farm development, some viewpoints would be materially changed by the tower's presence, lessening the scenic quality of this mixed VRM Class III/IV viewshed.

If constructed, the Dyer facility's 195-foot high tower would be the tallest man-made object in the area, rising well above any of the community's trees or structures.

Northbound travelers on SR 264 would probably begin to see the tower from about milepost 1 (Photo 1), where the highway crests an alluvial fan and first brings the Dyer settlement into view. From that point, however, the tower would be dwarfed by and probably lost against the White Mountain front.



Photo 14. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 1, Nevada State Route 264, Esmeralda County. The tower site location would be to the left of the distant tree line. View to northwest.

As the approach to Dyer continued (photos 2 & 3), the tower would become increasingly visible against the relatively light colored alluvial fan surface behind it. Still, from this viewpoint its location on the extreme left of the Dyer settlement would make its presence somewhat less intrusive than if it were more centrally located. Regardless, the tower would remain prominent in the western view-field until the traveler entered Dyer, where local trees would begin to screen it from further view.

Southbound SR 264 travelers would probably begin to notice the tower from about milepost 11 (Photo 4). From that point, however, its base would be hidden behind trees, while its upper sections would probably be at least partially masked against the distant mountains. As the approach to Dyer continued, the tower's position would gradually shift to the right of the view-field as SR 264's track turned from south to southeast just before entering Dyer. During the approach, the tower might briefly project above the local skyline.

Residents living in the central part of Dyer would probably find the tower almost entirely masked from view by local trees. Residents living beyond the central settlement could find the tower almost continuously visible, depending upon their angle of view.



Photo 15. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 3, Nevada State Route 264, Esmeralda County. The tower site would be located behind the small copse of trees above the mile marker sign. View to west-northwest.



Photo 16. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 5, Nevada State Route 264, Esmeralda County. The tower site would be located behind the brown structure above the mile marker sign. View to west-northwest.



Photo 17. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 11, Nevada State Route 264, Esmeralda County. The tower site would be located at about photo center, behind the trees directly above the mile marker sign. Note the Valley Electric Association tower against the hill at the lower end of the long slope. View to south-southeast.

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating the proposed tower site or modifying the tower height. Consideration has already been given to using the existing Valley Electric Association tower in Dyer. However, VEA's facility does not contain sufficient room for ANTC's equipment, and the VEA tower is incapable of supporting ANTC's microwave dishes.

The galvanized steel tower would have a dull appearance. If painting were required, colors would be selected from the BLM Standard Environmental Color Chart or an approved Federal Communications Commission (FCC) color scheme.

3.2.15 Wild Horses & Burros

3.2.15.1 Affected Environment

The Hickison Summit site lies within BLM's Hickison Herd Management Area (HMA) and closely adjacent to the US Forest Service' Burro HMA. Neither the Kingston nor Dyer sites are located within HMAs.

Horse and/or burro (*Equus equus/E. assinus*) droppings were found on the Hickison Summit site. Horse droppings were found on the Dyer site.

3.2.15.2 Environmental Consequences

Constructing the proposed ANTC facilities at Hickison Summit and Dyer would cause loss of 0.23 and 0.38 acres of current horse/burro range. During facility construction, local horses and burros would be temporarily displaced as a result of the construction activities.

3.2.16 Wildlife

3.2.16.1 Affected Environment

Pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*) forage across the Hickison Summit and Kingston areas; bighorn sheep (*Ovis canadensis*) may also use the Kingston site area.

Hickison Summit

The Nevada Department of Wildlife (NDOW 2013) notes that the Hickison Summit site lies in occupied pronghorn habitat, and that occupied mule deer habitat occurs on adjacent lands to the south and west.

During a 25 September 2012 site survey, one desert spiny lizard (*Sceloporus magister*), a western fence lizard (*S. occidentalis*) and several side-blotched lizards (*Uta stansburiana*) were found on the Hickison site and immediately surrounding vicinity. Scat and burrows of yellow-bellied marmot (*Marmota flaviventris*) were found adjacent to nearby rock outcrops; scat of pronghorn and mule deer was also noted around the site.

Habitat assessment surveys conducted 30 April – 1 May 2013 and covering lands out to one-half mile (0.8 km) around the facility site revealed numerous side-blotched lizards, one desert spiny and one Great Basin collared lizard (*Crotaphytus bicinctores*). Eight pronghorn were observed on the lower, west-side hill slopes below the proposed tower site. Scat of pronghorn is commonplace across the site vicinity. Mule deer scat is less frequently apparent. A single, shed mule deer antler was found adjacent to a rock outcrop northeast of the tower site. A large pellet of bobcat (*Lynx rufus*) scat was noted near the antler. Telltale mounds covering pocket gopher (*Thomomys* sp.) burrows are periodically apparent across the general site vicinity.

Kingston

The Kingston site also lies in occupied pronghorn range, while mule deer and bighorn sheep occupy upslope areas (Toiyabe Range) west of the tower site (NDOW 2013a).

Remains of an inactive, possible badger (*Taxidea taxus*) burrow were noted just beyond the site's northeast corner during a 25 September 2012 site survey.

A 2 May 2013 habitat assessment survey covering the Kingston site and surrounding lands up to 0.5 miles (0.8 km) north, south and west²⁰ revealed numerous side-blotched and western whiptail (*Cnemidophorus tigris*) lizards. Though less common, leopard lizards (*Gambelia wislizenii*) and desert horned lizards (*Phrynosoma platyrhinos*) were also seen. Several black-tailed jackrabbits (*Lepus californicus*) were flushed during the survey. Occasional clusters of mule deer scat were found.

Dyer

ANTC's proposed Dyer site lies a short distance southeast of locally identified mule deer range (NDOW 2013b).

A 3 May 2013 survey of the site and surrounding area consisting of a circle about two hundred yards (183 m) in diameter revealed numerous side-blotched and western whiptail lizards. Both black-tailed jackrabbits and desert cottontails (*Sylvilagus auduboni*) were observed in the Dyer site vicinity. No evidence of pygmy rabbits was noted.

3.2.16.2 Environmental Consequences

Installing the proposed ANTC facilities would reduce habitat available to local wildlife by 0.23, 0.35 and 0.38 acres, respectively.

However, constructing the Dyer facility would not impact the big sage thicket southeast of the site, thus wildlife associated with that vegetative community would not be materially affected.

Small species presently residing on the proposed facility sites may be injured or killed during facility construction. Construction-related noise would temporarily disrupt local wildlife use patterns for all species, but once construction was completed these animals would resume their normal activities. Wildlife would be permanently displaced from the fenced areas associated with the Kingston and Dyer sites.

²⁰ Surveys were not conducted east of State Route 376, which borders the proposed site's east side. Lands east of SR376 are privately owned.

Chapter 4

Cumulative Impacts

4.1 Introduction

For the purposes of this EA, cumulative impacts are analyzed as the sum of all past and present actions, the Proposed Action, and reasonably foreseeable future actions resulting primarily from public uses within the defined cumulative effects study area (CESA). A cumulative impact is defined as one resulting from the incremental impact of an action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes them. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

As required by NEPA and its implementing regulations, this chapter addresses the cumulative impacts on the environmental resources in the CESA that could, in combination with past, present and reasonably foreseeable future actions, result from implementing the Proposed Action. The CESA for the specific resources is described below. The length of time considered for cumulative effects analysis varies according to the duration of impacts from the Proposed Action on each resource. For purposes of this analysis and under Federal Regulations, “impacts and effects” are assumed to have the same meaning and are used interchangeably.

Direct and indirect environmental consequences of the Proposed Action for each resource analyzed in this EA were evaluated in Chapter 3. The following sections discuss resources identified as potentially impacted by the Proposed Action within their identified CESA.

4.2 Cumulative Effects Study Area

Hickison Summit

The hill on which ANTC proposes to site its Hickison Summit facility currently hosts a Nevada Department of Transportation (NDOT) microwave relay station. ANTC’s proposed action would place a second tower complex alongside NDOT’s. Approximately 0.23 acre, about one quarter of which has already been disturbed, would be cleared, leveled and compacted as part of site preparation. The completed ANTC facility would occupy a now-vegetated area presently used by assorted wildlife and feral and domestic animals. The facility would add a new visual intrusion to the local viewshed.

The CESA for affected resources at Hickison Summit encompasses various existing rights-of-ways (ROW), including those to NDOT for U.S. Highway 50 (CC-0023395), the Nevada Bell Repeater Site (NEV-051375) and Nevada Department of Information Technology communication site and access road (N-078066). The Proposed Action seeks a new ROW (N-091090) on 0.23 acre within this same area.

Kingston

The ground on which the Kingston facility would be located is undeveloped and currently used as cattle range. Lying just west of Nevada State Route 376, and immediately northwest of the junction between SR 376 and an unnamed ranch road, the proposed site is flanked by power lines and an NDOT right-of-way fence on the east. The ranch road and a second power line parallel its south side.

If constructed, the Kingston facility would occupy approximately 0.35 acre of land presently supporting mostly native vegetation, and used by livestock and assorted wildlife. The facility's 120 foot (36.6 m) tower would constitute a new visual feature for local residents and travelers on SR 376.

Existing ROWs at Kingston include those issued to NDOT for SR 376 (CC-0022622) and the Mineral Material Pit (CC-0023331), Nevada Bell telephone line from Round Mountain to Kingston Canyon (N-039908), Sierra Pacific's Kingston Smoky Valley Transmission Line (N-046509) and the Thompson Extension (N-048678), Melsheimers' McLeod Creek Water Pipeline (N-062358) and Nevada Bell's Overhead and Underground Fiber Optic Line from Hadley to Austin (N-063200). If approved, the Proposed Action would constitute a new ROW (N-091092) on 0.35 acre.

Dyer

Situated along the southwest edge of the Dyer settlement, ANTC's proposed Dyer facility would closely border active farmlands. The intended project site is technically undeveloped, but both it and the surrounding area beyond the farmlands are already heavily disturbed by human activity. The site vicinity appears to also be within an old fire scar.

A wood pole power line and associated access road closely pass the Dyer site's eastern border. A dirt track stemming from the access road and terminating in a nearby dump parallels the site's south side.

Beyond the human activity, primary users are cattle, feral horses and wildlife.

Although placed well away from Nevada State Route 254 and largely veiled by trees, ANTC's anticipated 195 foot (59.5 m) tower would be intermittently visible to both area residents and local travelers.

Current ROW's around Dyer include the VEA transmission line to Fish Lake Valley (NEV-030645), a Nevada Bell telephone line to Fish Lake Valley (NEV-035352) and NDOT's Highway SR 264 (NEV-0009885). ANTC's proposed project would constitute a new ROW (N-091093) on 0.38 acre in this same area.

4.3 Past and Present Actions

Past and present actions within the CESA consist primarily of farming and ranching, transportation and access. Past and present actions within the CESA are supported by a surface transportation network that includes US Highway 50, SR 376, SR 264, county roads, dirt roads, and “two tracks” on public lands. Few are regularly maintained and off-highway vehicle (OHV) use may occur outside the network.

4.4 Reasonably Foreseeable Future Actions

The BLM has not received applications or preliminary proposals for any new projects within the CESAs of the three tower locations.

4.5 Cumulative Impacts

4.5.1 Air Quality

Short-term, highly localized increases in dust and hydrocarbon emissions would accompany site construction. Site operation and maintenance would irregularly precipitate minor reductions in air quality. A limited amount of traffic resulting from recreation or maintenance of existing facilities may also occur in the area. When combined with the proposed action, impacts would be localized and negligible.

4.5.2 Cultural/Historical Resources

The Proposed Action would require appropriate mitigation of cultural resources. No cumulative impacts to cultural resources are expected as a result of this action.

4.5.3 Vegetation (including Noxious Weeds/Invasive Non-native Species)

Project construction would permanently remove 0.23, 0.35 and 0.38 acres of currently vegetated area from the project areas, but these. However, impacts are expected to be minimal when combined with the small amount of existing disturbance in the CESA surrounding each site.

Noxious weed assessments prepared for each site indicate a low likelihood that the proposed projects would foster new or increased occurrences of unwanted plant species.

4.5.4 Wildlife (including Migratory Birds and Special Status Species)

Wildlife would suffer permanent loss of approximately one acre of habitat now comprising the three proposed ANTC sites. Because habitat values at Kingston and Dyer are already compromised due to existing developments, additional long-term effects resulting from the proposed action would be minimal for local species. Wildlife using the Hickison Summit area would lose a small (< 0.23 acre) patch of reasonably intact habitat

and the new tower would be approximately 40 feet taller than the existing facility near the site. There are large areas of similar habitat that surround the proposed ANTC site, but certain prey species, including greater sage grouse, may avoid the area surrounding the site due to the increased height of the tower.

Increased incidence of bird and bat/tower collisions would probably occur.

The towers' potential for use as perching/nesting platforms by raptors and ravens could provide these predatory species with new opportunities beyond those available from existing facilities to prey on other local wildlife. New project-associated nesting opportunities could also foster population increases of some local bird species.

4.5.5 Solid & Hazardous Waste

Some solid waste material would be generated by project construction and would be disposed of in an appropriate waste facility. The proposed facilities would not generate hazardous waste. There would be no cumulative impacts since the existing facilities in the CESAs do not generate waste.

4.5.6 Human Health & Safety

Aside from creating new focal points of concentrated microwave radiation, the proposed facilities present no unusual human safety concerns. The Kingston and Dyer facilities would be fenced to prevent unauthorized entry; the Hickison Summit facility's remote location would discourage visitation. Simultaneously, locally expanded communication capabilities fostered by the proposed facilities would contribute positively to human well being.

4.5.7 Grazing Management

Facility establishment would precipitate permanent losses of 0.23, 0.35 and 0.38 acres of currently available livestock grazing lands. When combined with the disturbance related to existing facilities, impacts would be negligible due to the small amount of new disturbance.

4.5.8 Socio-Economic Values

New, project-associated communication capabilities would initiate a variety of business, education and social opportunities presently unavailable in the project areas.

4.5.9 Soils

Constructing the proposed projects would cause disruption of soils on the project sites. Soil reworking would cause removal of existing vegetation. When combined with the disturbance related to existing facilities, impacts would be negligible due to the small amount of new disturbance.

4.5.10 Visual Resources

The Proposed Action would not have appreciable impacts on local visual resources. The Proposed Action meets BLM's VRM objectives because the towers are non-reflective, and associated ancillary facilities will be of natural colors that blend with existing structures and scenery. None of the affected areas are presently devoid of other highly visible man-made objects, and the imposing scenery adjacent to each site would continue to be the primary visual attraction.

4.5.11 Wild Horses & Burros

Wild horses and burros would suffer permanent loss of range and grazing habitat within the proposed facility sites. Actual value of the losses would be proportional to the proposed sites' existing habitat values, which are, at least in the cases of the Kingston and Dyer sites, degraded. When combined with the disturbance related to existing facilities, impacts would be negligible due to the small amount of new disturbance.

4.6 No-Action Alternative

Under the No-Action Alternative, BLM would not approve the Proposed Action and the potential cumulative impacts analyzed above would not occur. Present activities would continue in the CESA and current BLM management practices would be used for past, present, and reasonably foreseeable future actions.

Chapter 5

Mitigation and Monitoring

5.1 Introduction

Mitigation and monitoring of resources and issues potentially affected by the proposed projects are described below.

5.2 Mitigation & Monitoring

5.2.1 Air Quality

Appropriate dust control measures would be applied during project construction. Engines of equipment on-site but not actively engaged in project-related activities would not be run unnecessarily.

5.2.2 Cultural/Historical Resources

Reports describing cultural and historical material located during archaeological survey of the intended sites have been submitted to and accepted by the State Historic Preservation Office (SHPO). As the materials located have been determined ineligible for listing in the National Register of Historic Places, no further mitigation of the sites is anticipated. If additional cultural material was discovered during facility construction, all work would immediately cease and the BLM notified. Work would not resume until BLM clearance was received.

5.2.3 Noxious Weeds/Invasive Non-native Species

Noxious weed assessments (Appendix 5) prepared for each site indicate a low risk of the proposed projects precipitating new weed infestations or contributing to spread of existing populations. All vehicles entering the sites would be cleaned prior to each site entry to prevent inadvertent transfer of unwanted vegetation. To prevent weed entry, a weed barrier would be placed across each site footprint and covered with four to six inches (10.2 – 15.2 cm) of crushed rock. The facilities would be constructed on top of the crushed rock. Regular site monitoring would occur in conjunction with routine site maintenance.

5.2.4 Migratory Birds

Construction schedules would be set to avoid migratory bird nesting periods (1 March – 31 July). If construction needed to proceed during the nesting period, the facility site would be examined, no more than fourteen days before construction was to begin, by a qualified biologist for presence of nesting birds. If active nests were discovered, appropriate buffer zones would be established to minimize disturbance to them.

To avoid attracting migrating birds the towers would not be lighted.

5.2.5 Solid/Hazardous Waste

Solid and liquid waste generated during project construction would be appropriately contained and removed. No hazardous waste is anticipated to accrue as a result of the proposed projects. Ground inadvertently contaminated by project-related solvent or fuel spills would be excavated and removed to an appropriate disposal area.

5.2.6 Human Health & Safety

Workers would employ appropriate safety measures during construction and subsequent facility maintenance and operation.

The easily accessible Kingston and Dyer facilities would be secured with barbed wire-topped, six foot (1.8 m) high cyclone fencing to prevent unauthorized human entry. The Hickison Summit facility's remote location would discourage most approach. Electrical equipment housing structures would be sufficiently secure and locked to prevent casual entry. Signs would be posted at each site to alert passers-by of potential electric and microwave hazards.

5.2.7 Grazing Management

No mitigation or monitoring is anticipated to offset impacts stemming from the small acreages (0.23, 0.35 and 0.38 acres) of grazing area lost as a result of these projects.

5.2.8 Socio-Economic Values

The proposed projects would foster new socio-economic opportunities in the affected areas. Travelers' communications capabilities would be similarly increased.

5.2.9 Soils

No soil would be removed from the sites. To the extent possible, facility sites would be re-contoured after soil engineering to reduce change in local terrain character and mitigate visual impacts. Project associated unprotected disturbed soils would be reseeded with a BLM-approved seed mix to facilitate re-vegetation.

5.2.10 Special Status Species

Construction schedules would be set to avoid sage grouse (and other avian) courting and nesting periods. To reduce potential impacts on greater sage grouse, site maintenance at Hickison Summit would be planned around periods of critical sage grouse activity (i.e., courtship and nesting).

5.2.11 Vegetation

Project associated unprotected, disturbed soils would be reseeded with a BLM-approved seed mix to facilitate re-vegetation.

5.2.12 Visual Resources

Visual Resource Assessments (Appendix 6) have been prepared for each proposed site.

To reduce visual contrast with the surrounding landscape, environmentally acceptable color schemes would be used or applied as necessary to the facilities. To the extent possible, facility sites would be re-contoured after soil engineering to reduce change in local terrain character and mitigate visual impacts.

5.2.13 Wild Horses & Burros

As the proposed projects' sole impact on local wild horse and burro herds would be to occupy minor areas of current range and grazing habitat, no mitigation is anticipated.

5.2.14 Wildlife

Construction schedules would be set to minimize interference with local wildlife. To discourage attracting nocturnally migrating birds the towers would not be lighted.

If power lines to the Kingston and Dyer facilities are strung above-ground rather than buried, perch deterrents would be installed on the associated power poles and flight deterrents would be installed on the lines to prevent raptor electrocution and raven nesting.

Chapter 6

Agencies, Individuals, Organizations & Tribes Consulted

The following persons/organizations were contacted and consulted during preparation of this EA:

Dr. Michael J. O'Farrell, Wildlife Biologist: Consultation regarding bat presence in project vicinities.

Native American Tribes

Duckwater Shoshone Tribe, Duckwater, NV 89314: Consultation regarding Native American Religious Concerns.

Timbisha Shoshone Tribe, Death Valley National Park, CA: Consultation regarding Native American Religious Concerns.

Yomba Shoshone Tribe, Austin, NV: Consultation regarding Native American Religious Concerns.

Natural Resources Conservation Service

Anonymous (www.soils.usda.gov): Consultation regarding soil resources in project site vicinities.

Nevada Department of Wildlife

Alan Jenne, Eastern Region Supervising Habitat Biologist: Inquiry re: mitigation measures to offset potential project impacts to local wildlife.

Brad Hardenbrook, Southern Region Supervising Habitat Biologist: Inquiry re: mitigation measures to offset potential project impacts to local wildlife.

Timothy Herrick, Conservation Aide III: Consultation re: state-managed wildlife in the project vicinities.

Nevada Natural Heritage Program

Eric Miskow, Data Manager: Consultation regarding records of protected species in project vicinities.

U.S. Fish and Wildlife Service

Consultations regarding potential presence of Threatened and Endangered species in the project vicinities.

Chapter 7

List of Preparers

Battle Mountain District BLM staff contributing to preparation of this EA includes:

| | |
|------------------|--|
| Ethan Arky | Recreation/Visual Resource Management |
| Kent Bloomer | Noxious Weeds/Invasive, Non-Native Species |
| Adam Cochran | Range, Vegetation, Soils |
| Tim Coward | Native American Consultation |
| Katherine Graham | GIS Mapping |
| John Kinsner | Cultural Resources |
| Chris Kula | Wildlife, Migratory Birds, Threatened & Endangered Species (Plants and Animals) |
| Nancy Lockridge | Lands and Realty (Project Lead) |
| Aaron Romesser | Range, Vegetation, Soils |
| Gloria Tibbetts | NEPA Compliance |

Draft document preparation on behalf of Arizona Nevada Tower Corporation by:

| | |
|----------------|--|
| Alex L. Heindl | Desert WalkAbouts, Inc., Henderson, Nevada |
|----------------|--|

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Appendices

- Appendix 1:** Nevada Natural Heritage Program Reports
- Appendix 2:** Nevada Department of Wildlife Reports (Contains sensitive information. See cover letters, page 1)
- Appendix 3:** US Fish & Wildlife Service Reports
- Appendix 4:** Battle Mountain District BLM Sensitive Species List
- Appendix 5:** Noxious Weed Assessments
- Appendix 6:** Visual Resource Assessments
- Appendix 7:** Standard ANTC Mitigation Measures and Operating Procedures (from 30 March 2012 project Plan of Development)

Appendix 1. Nevada Natural Heritage Program Reports

LEO DROZDOFF
Director

Department of Conservation
and Natural Resources

JENNIFER E. NEWMARK
Administrator



BRIAN SANDOVAL
Governor



Nevada Natural Heritage Program
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STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Nevada Natural Heritage Program
<http://heritage.nv.gov>

06 September 2012

Alex L. Heindl
Desert WalkAbouts, Inc.
426 Viewmont Dr.
Henderson, NV 89015

RE: Data request received 06 September 2012

Dear Mr. Heindl:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded within or near the Hickison Summit Telecommunications Tower Project area in Lander County. We searched our database and maps for the following, a three kilometer radius around:

Township 18N Range 46E Section 01

There are no at risk taxa recorded within the given area. However, habitat may be available for, the dark sandhill skipper, *Polites sabuleti nigrescens*, a Taxon determined to be Vulnerable by the Nevada Natural Heritage Program. The Nevada Department of Wildlife (NDOW) manages, protects, and restores Nevada's wildlife resources and associated habitat. Please contact Chet Van Dellen, NDOW GIS Coordinator (775.688.1565) to obtain further information regarding wildlife resources within and near your area of interest. Removal or destruction of state protected flora species (NAC 527.010) requires a special permit from Nevada Division of Forestry (NRS 527.270).

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

Eric S. Miskow
Biologist/Data Manager

LEO DROZDOFF
Director

Department of Conservation
and Natural Resources

JENNIFER E. NEWMARK
Administrator

BRIAN SANDOVAL
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STATE OF NEVADA
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<http://heritage.nv.gov>

06 September 2012

Alex L. Heindl
Desert WalkAbouts, Inc.
426 Viewmont Dr.
Henderson, NV 89015

RE: Data request received 06 September 2012

Dear Mr. Heindl:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded within or near the Kingston Telecommunications Tower Project area in Nye County. We searched our database and maps for the following, a three kilometer radius around:

Township 14N Range 43E Section 21

There are no at risk taxa recorded within the given area. However, habitat may be available for, the Big Smoky Valley tui chub, *Siphateles bicolor* ssp. 8, a Nevada Bureau of Land Management Sensitive Species, and the Columbia spotted frog (Great Basin pop.), *Rana luteiventris* pop. 3, a Federal Candidate Taxon. The Nevada Department of Wildlife (NDOW) manages, protects, and restores Nevada's wildlife resources and associated habitat. Please contact Chet Van Dellen, NDOW GIS Coordinator (775.688.1565) to obtain further information regarding wildlife resources within and near your area of interest. Removal or destruction of state protected flora species (NAC 527.010) requires a special permit from Nevada Division of Forestry (NRS 527.270).

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Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

A blue ink signature of Eric S. Miskow.

Eric S. Miskow
Biologist/Data Manager

LEO DROZDOFF
Director

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JENNIFER E. NEWMARK
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06 September 2012

Alex L. Heindl
Desert WalkAbouts, Inc.
426 Viewmont Dr.
Henderson, NV 89015

RE: Data request received 06 September 2012

Dear Mr. Heindl:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded within or near the Dyer Telecommunications Tower Project area in Esmeralda County. We searched our database and maps for the following, a three kilometer radius around:

Township 03S Range 35E Section 36

There are no at risk taxa recorded within the given area. However, habitat may be available for, the pale kangaroo mouse, *Microdipodops pallidus*, a Taxon determined to be Imperiled by the Nevada Natural Heritage Program. The Nevada Department of Wildlife (NDOW) manages, protects, and restores Nevada's wildlife resources and associated habitat. Please contact Chet Van Dellen, NDOW GIS Coordinator (775.688.1565) to obtain further information regarding wildlife resources within and near your area of interest. Removal or destruction of state protected flora species (NAC 527.010) requires a special permit from Nevada Division of Forestry (NRS 527.270).

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,


Eric S. Miskow
Biologist/Data Manager

Appendix 2. Nevada Department of Wildlife Consultations



BRIAN SANDOVAL
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STATE OF NEVADA
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1100 Valley Road
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KENNETH E. MAYER
Director

RICHARD L. HASKINS, II
Deputy Director

PATRICK O. CATES
Deputy Director

Alex L Heindl
Wildlife Biologist
Desert Walkabouts, Inc.
426 Viewmont Dr.
Henderson, Nevada, 89015

March 19, 2013

Re: Hickison Summit Telecom Project

Dear Mr. Heindl,

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources in the vicinity of the Hickison Summit Telecom Project located in Lander County, Nevada. In order to fulfill your request an analysis was performed using the best available data from the NDOW's wildlife sight records, commercial reptile collections, scientific collections, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species or resources. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the needs of the project described on your GIS Data Request Form. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

To adequately provide wildlife resource information in the vicinity of the proposed project the NDOW delineated an area of interest that included a four-mile buffer around the project area provided by you via mail (March 5, 2013). Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game – Occupied pronghorn antelope distribution exists throughout the entire project area and portions of the four-mile buffer area. Occupied mule deer distribution exists in the vicinity of the project area. No known occupied bighorn sheep or elk distribution exists in the vicinity of the project area. Please refer to the attached maps for details regarding big game species distributions relative to the proposed project area.

Greater Sage-Grouse – Greater sage-grouse habitat in the vicinity of the project area is primarily categorized as essential/irreplaceable habitat. Habitat of moderate importance and low value habitat/transitional range also exists in the vicinity of the project area. Please refer to the attached maps for details regarding greater sage-grouse habitat relative to the proposed project area.

There are five known greater sage-grouse lek sites in the vicinity of the project area:

| Lek Name | Township/Range/Section | Last Survey | Lek Status |
|----------------|------------------------|-------------|------------|
| Cape Horn 1 | 21 0180N 0460E 015 | 1996 | Unknown |
| Cape Horn 2 | 21 0180N 0460E 003 | 2009 | Active |
| Cape Horn 3 | 21 0180N 0460E 003 | 2005 | Unknown |
| Grimes Hills 1 | 21 0180N 0470E 010 | 2010 | Active |
| Grimes Hills 2 | 21 0180N 0470E 003 | 2009 | Unknown |

Raptors – Various species of raptors, which use diverse habitat types, are known to reside in the vicinity of the project area. American kestrel, barn owl, burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, northern harrier, northern saw-whet owl, osprey, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, turkey vulture, and western screech owl have distribution ranges that include the project area and four-mile buffer area. Furthermore, American kestrel and northern harrier have been directly observed in the vicinity of the project area.

Raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, ferruginous hawk, northern goshawk, peregrine falcon, short-eared owl, and Swainson's hawk are NDOW species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan.

No raptor nest sites have been identified by the NDOW in the vicinity of the project area.

Per the *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance* (United States Fish and Wildlife Service 2010) we have extended our raptor nest database query to include bald and golden eagle nest sites within ten miles of the proposed project area. One eagle nest is known to exist within ten miles of the project area and is located in Township 19 North, Range 47 East, Section 9.

Other Wildlife Resources

California toad and Great Basin fence lizard have also been observed in the vicinity of the project area.

The above information is based on data stored at our Reno Headquarters Office, and does not necessarily incorporate the most up to date wildlife resource information collected in the field. Please contact the Habitat Division Supervising Biologist at our Eastern Region Elko Office (775.777.2300) to discuss the current environmental conditions for your project area and the interpretation of our analysis. Furthermore, it should be noted that the information detailed above is preliminary in nature and not necessarily an identification of every wildlife resource concern associated with the proposed project. Consultation with the Supervising Habitat biologist will facilitate the development of appropriate survey protocols and avoidance or mitigation measures that may be required to address potential impacts to wildlife resources.

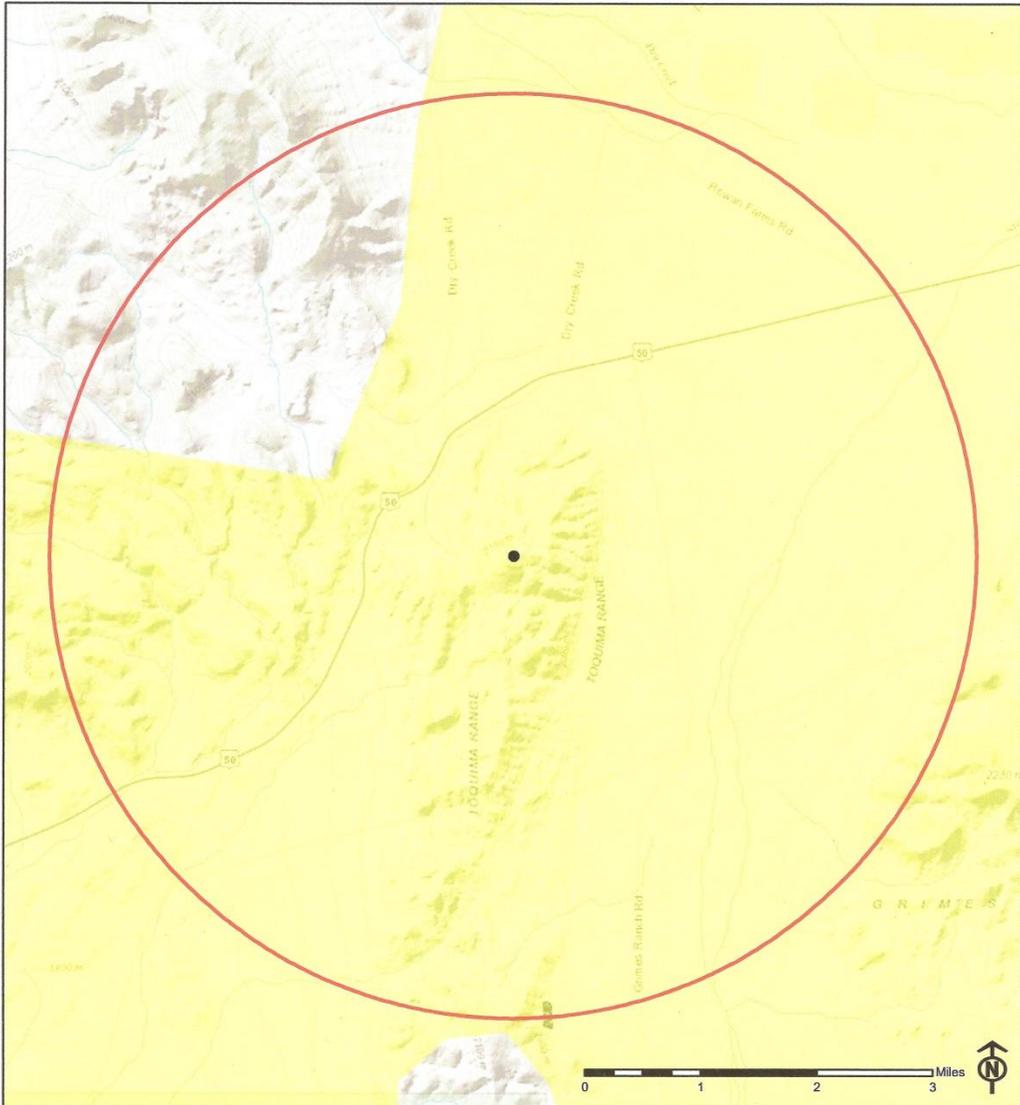
Alan Jenne – Eastern Region Supervising Habitat Biologist (775.777.2306)

Federally listed Threatened and Endangered species are also under the jurisdiction of the United States Fish and Wildlife Service. Please contact them for more information regarding these species.

If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1565.

Sincerely,

Timothy Herrick
Conservation Aide III



- Telecom Site
- Four-Mile Buffer Area
- Pronghorn Antelope Distribution



**Hickison Summit Telecom Site
Pronghorn Antelope Distribution**



March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife
as to the accuracy, reliability, or completeness of the data





- Telecom Site
- Four-Mile Buffer Area
- Mule Deer Distribution



**Hickison Summit Telecom Site
Mule Deer Distribution**

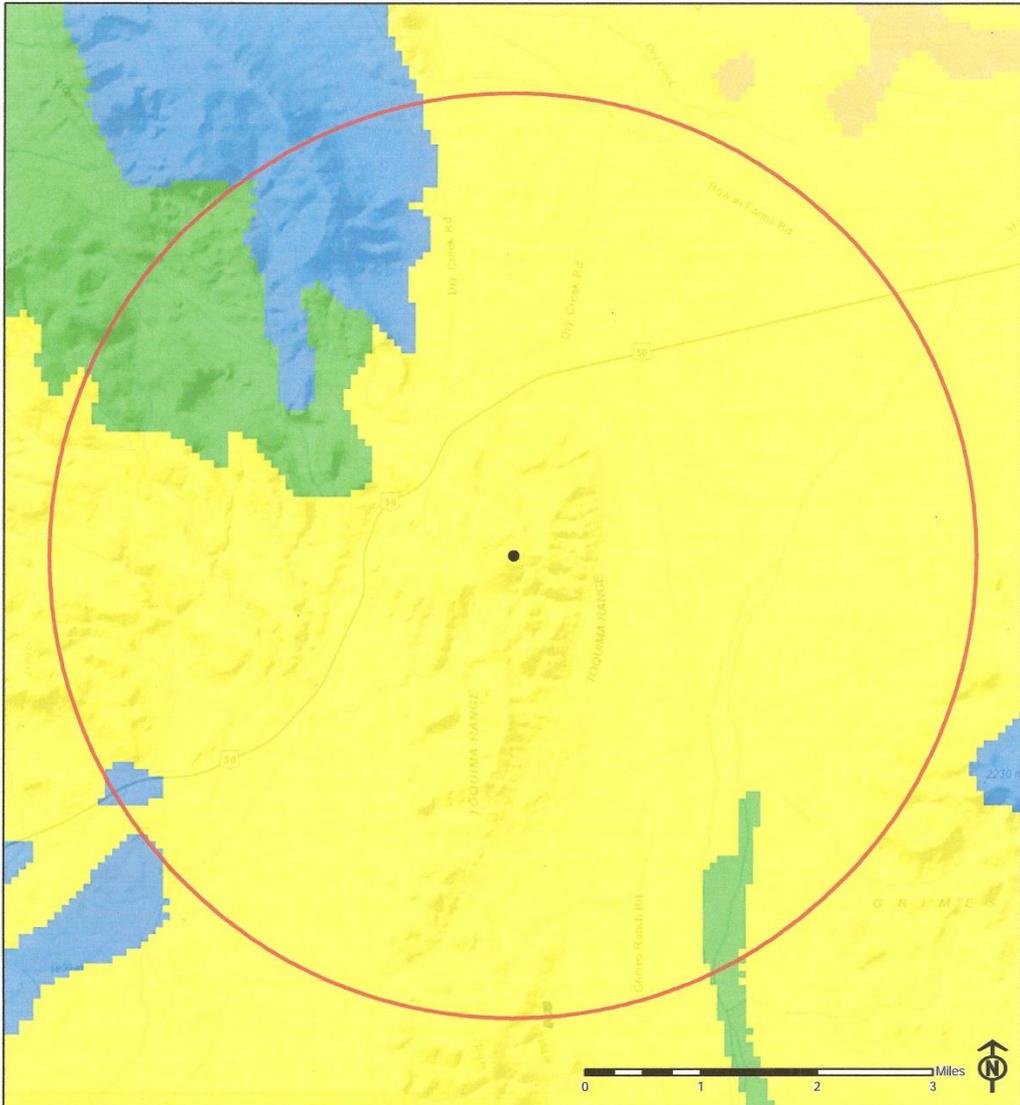


March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data





| | |
|--|--|
| ● Telecom Site | 3 - Habitat of Moderate Importance |
| ○ Four-Mile Buffer Area | 4 - Low Value Habitat/Transitional Range |
| Greater Sage-Grouse Habitat Value | |
| 1 - Essential/Irreplaceable Habitat | 5 - Unsuitable Habitat |
| | Pending Completion |
| | N/A - Non-Habitat |

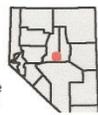


**Hickison Summit Telecom Site
Greater Sage-Grouse Habitat**

March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data





BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

KENNETH E. MAYER
Director

RICHARD L. HASKINS, II
Deputy Director

PATRICK O. CATES
Deputy Director

March 19, 2013

Alex L Heindl
Wildlife Biologist
Desert Walkabouts, Inc.
426 Viewmont Dr.
Henderson, Nevada, 89015

Re: Kingston Telecom Project

Dear Mr. Heindl,

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources in the vicinity of the Kingston Telecom Project located in Nye County, Nevada. In order to fulfill your request an analysis was performed using the best available data from the NDOW's wildlife sight records, commercial reptile collections, scientific collections, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species or resources. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the needs of the project described on your GIS Data Request Form. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

To adequately provide wildlife resource information in the vicinity of the proposed project the NDOW delineated an area of interest that included a four-mile buffer around the project area provided by you via mail (March 5, 2013). Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game – Occupied pronghorn antelope distribution exists throughout the entire project area and four-mile buffer area. Occupied bighorn sheep and mule deer distributions exists in the vicinity of the project area. No known occupied elk distribution exists in the vicinity of the project area. Please refer to the attached maps for details regarding big game species distributions relative to the proposed project area.

Greater Sage-Grouse – Greater sage-grouse habitat in the vicinity of the project area is primarily categorized as low value habitat/transitional range. Important habitat and habitat of moderate importance also exist in the vicinity of the project area. There are no known greater sage-grouse lek sites in the vicinity of the project area.

Raptors – Various species of raptors, which use diverse habitat types, are known to reside in the vicinity of the project area. American kestrel, barn owl, burrowing owl, Cooper's hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, northern harrier, northern saw-whet owl, osprey, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, turkey vulture, and western screech owl have distribution ranges that include the project area and four-mile buffer area. Furthermore, golden eagle, northern harrier, and prairie falcon have been directly observed in the vicinity of the project area.

Raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, ferruginous hawk, northern goshawk, peregrine falcon, short-eared owl, and Swainson's hawk are NDOW

species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan.

Seven raptor nest sites have been identified by the NDOW in the vicinity of the project area:

| Probable Use | Township/Range/Section | Probable Use | Township/Range/Section |
|---------------------|-------------------------------|---------------------|-------------------------------|
| Buteo | 21 0140N 0420E 012 | Falcon | 21 0140N 0430E 007 |
| Eagle | 21 0140N 0420E 023 | Turkey Vulture | 21 0140N 0420E 023 |
| Eagle | 21 0140N 0420E 024 | Turkey Vulture | 21 0140N 0420E 024 |
| Falcon | 21 0140N 0420E 012 | | |

Per the *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance* (United States Fish and Wildlife Service 2010) we have extended our raptor nest database query to include bald and golden eagle nest sites within ten miles of the proposed project area. Three additional eagle nests are known to exist within ten miles of the project area:

| Township/Range/Section | Township/Range/Section | Township/Range/Section |
|-------------------------------|-------------------------------|-------------------------------|
| 21 0140N 0420E 034 | 21 0150N 0430E 027 | 21 0150N 0430E 029 |

Other Wildlife Resources

The following species have also been observed in the vicinity of the project area:

desert horned lizard long-nosed leopard lizard red-breasted sapsucker
Great Basin gophersnake

The above information is based on data stored at our Reno Headquarters Office, and does not necessarily incorporate the most up to date wildlife resource information collected in the field. Please contact the Habitat Division Supervising Biologist at our Southern Region Las Vegas Office (702.486.5127) to discuss the current environmental conditions for your project area and the interpretation of our analysis. Furthermore, it should be noted that the information detailed above is preliminary in nature and not necessarily an identification of every wildlife resource concern associated with the proposed project. Consultation with the Supervising Habitat biologist will facilitate the development of appropriate survey protocols and avoidance or mitigation measures that may be required to address potential impacts to wildlife resources.

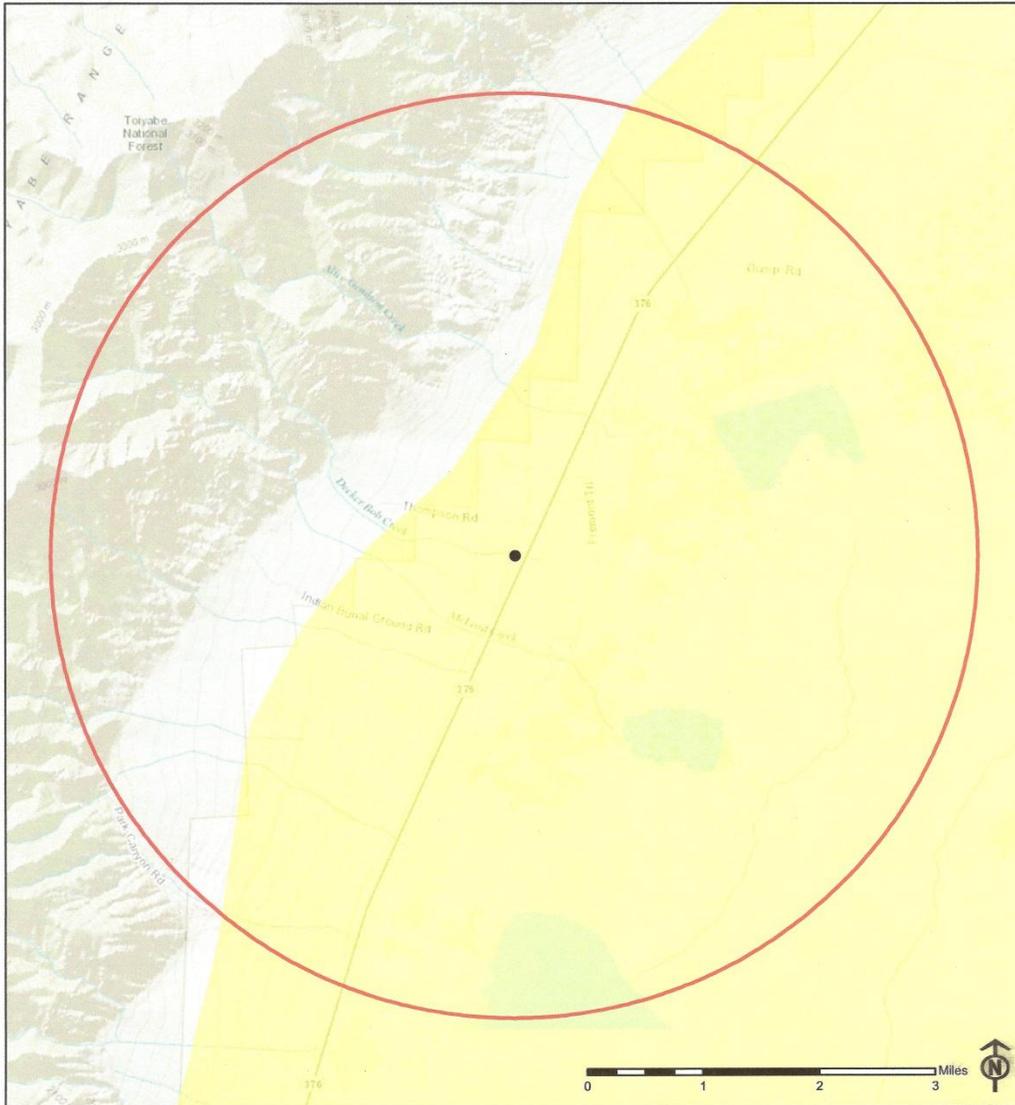
Brad Hardenbrook – Southern Region Supervising Habitat Biologist (ext. 3600)

Federally listed Threatened and Endangered species are also under the jurisdiction of the United States Fish and Wildlife Service. Please contact them for more information regarding these species.

If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1565.

Sincerely,

Timothy Herrick
Conservation Aide III



- Telecom Site
- Four-Mile Buffer Area Boundary
- Pronghorn Antelope Distribution
- County Boundary



**Kingston Telecom Site
Pronghorn Antelope Distribution**

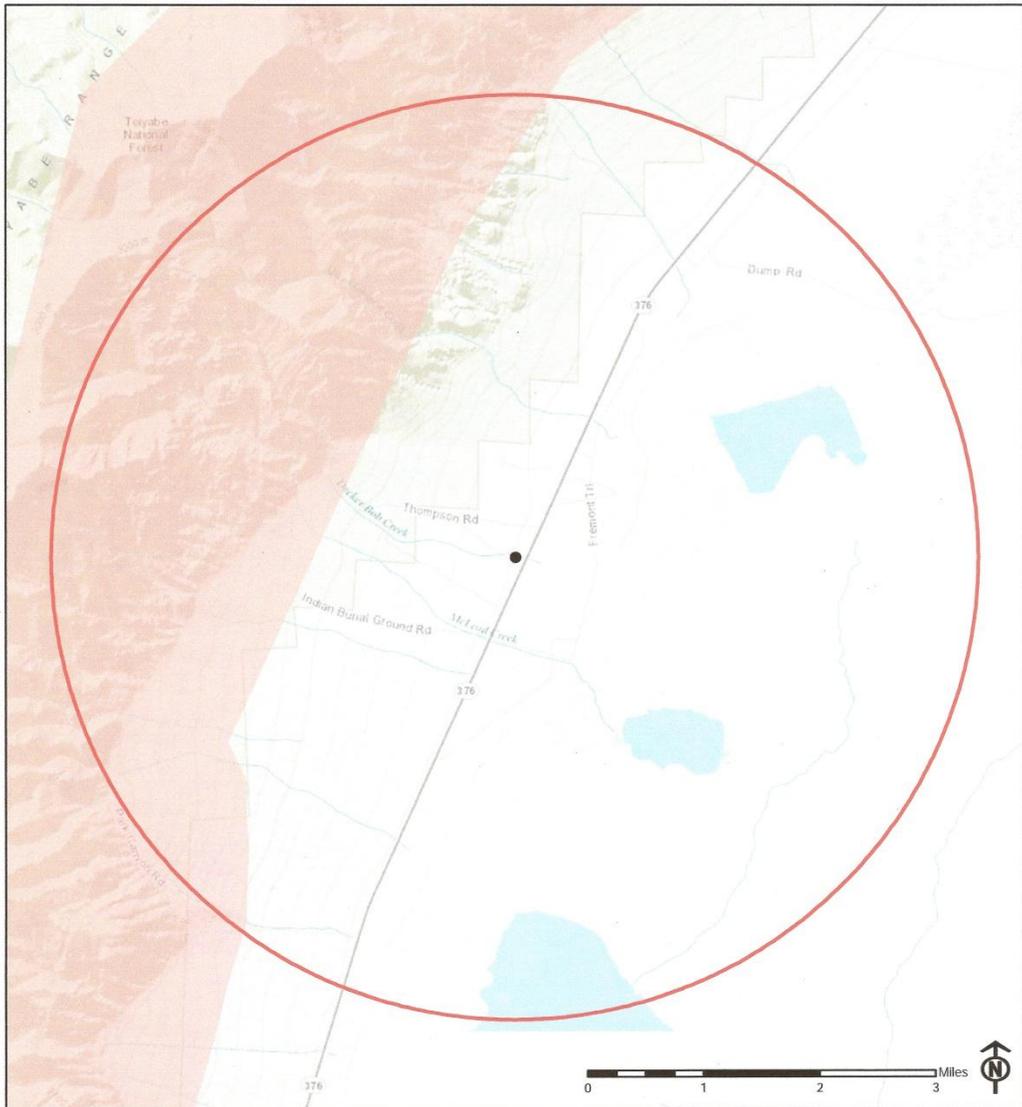


March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data





- Telecom Site
- Four-Mile Buffer Area Boundary
- Bighorn Sheep Distribution
- County Boundary



**Kingston Telecom Site
Bighorn Sheep Distribution**

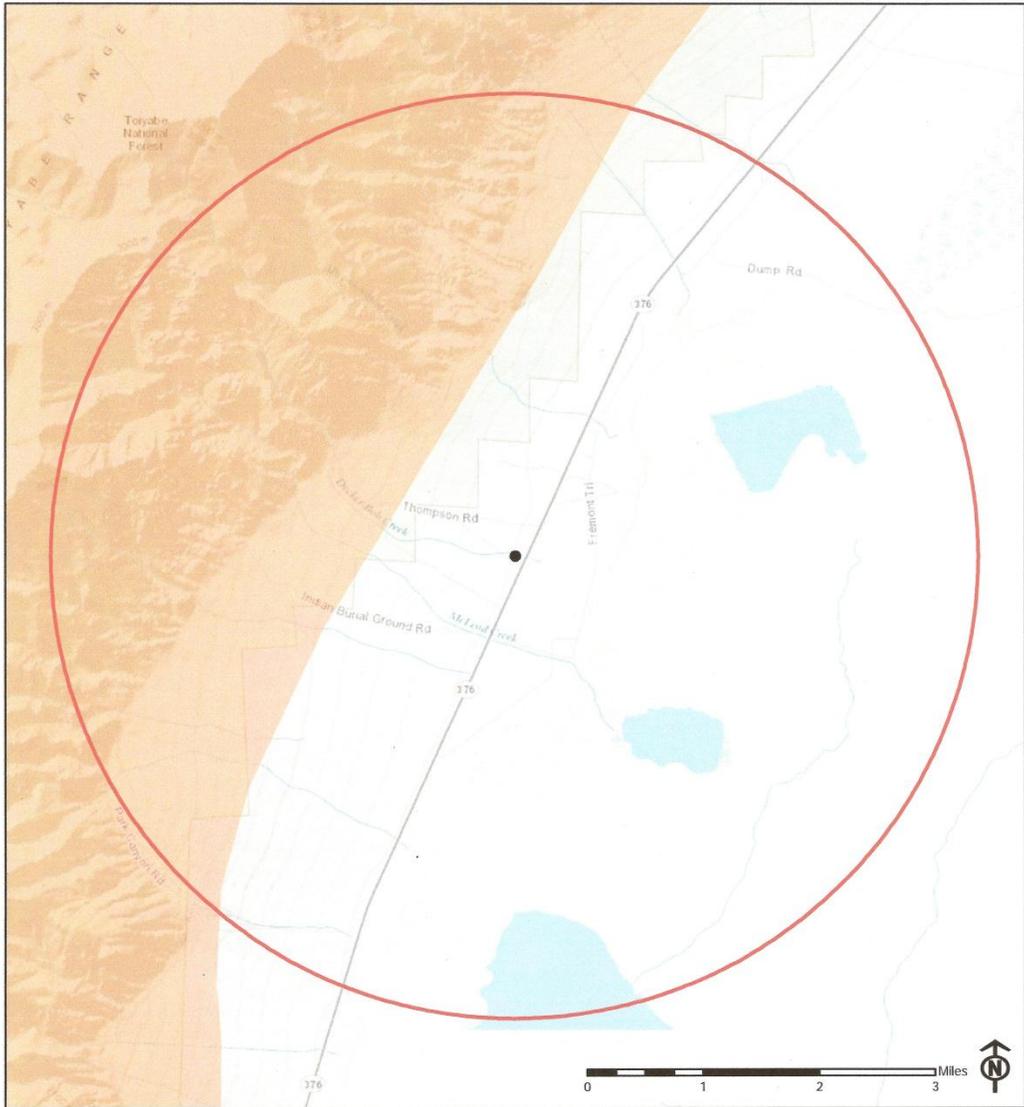


March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data





- Telecom Site
- ◻ Four-Mile Buffer Area Boundary
- ◻ Mule Deer Distribution
- ◻ County Boundary



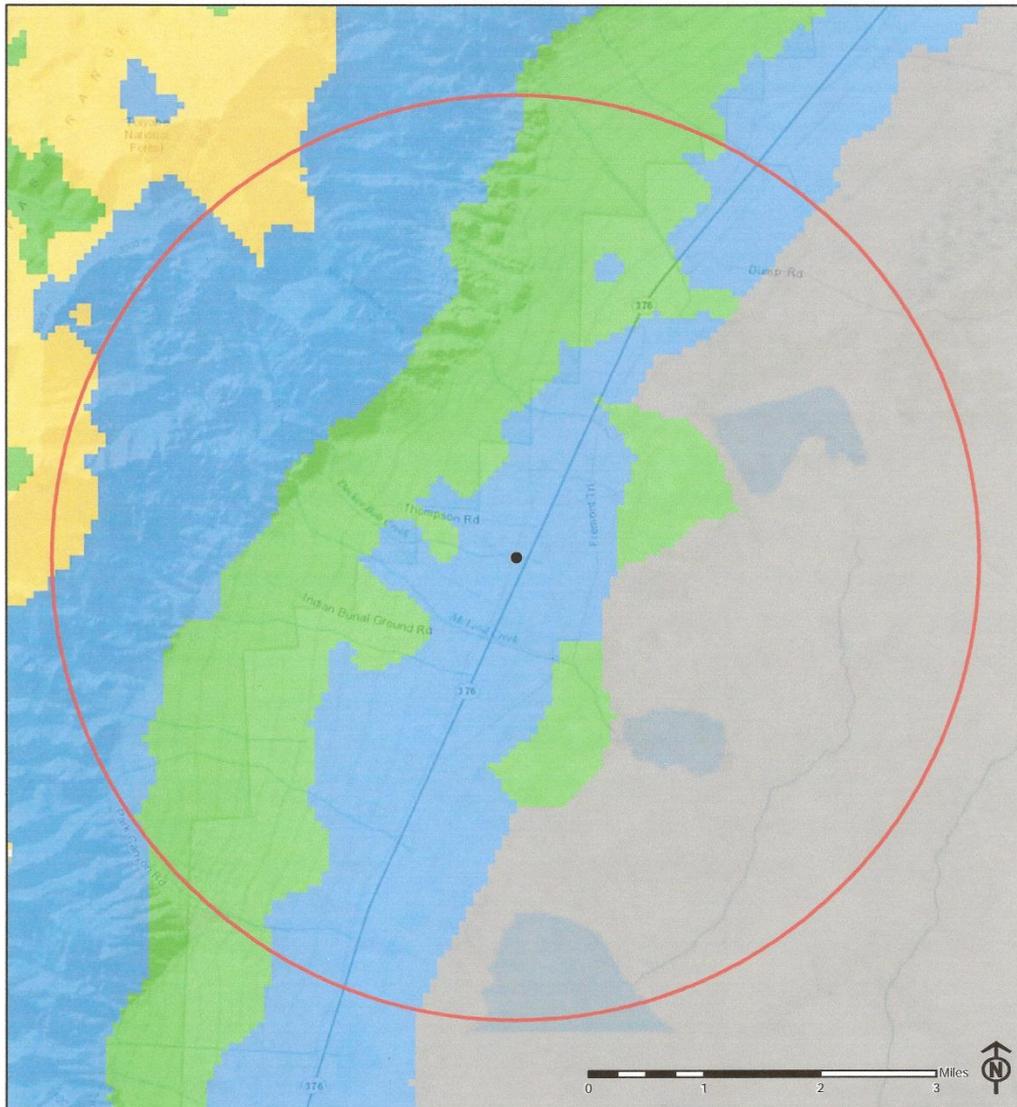
**Kingston Telecom Site
Mule Deer Distribution**

March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife
as to the accuracy, reliability, or completeness of the data



**Kingston Telecom Site
Greater Sage-Grouse Distribution**

March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data






BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

KENNETH E. MAYER
Director

RICHARD L. HASKINS, II
Deputy Director

PATRICK O. CATES
Deputy Director

March 19, 2013

Alex L Heindl
Wildlife Biologist
Desert Walkabouts, Inc.
426 Viewmont Dr.
Henderson, Nevada, 89015

Re: Dyer Telecom Project

Dear Mr. Heindl,

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources in the vicinity of the Dyer Telecom Project located in Esmeralda County, Nevada. In order to fulfill your request an analysis was performed using the best available data from the NDOW's wildlife sight records, commercial reptile collections, scientific collections, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species or resources. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the needs of the project described on your GIS Data Request Form. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

To adequately provide wildlife resource information in the vicinity of the proposed project the NDOW delineated an area of interest that included a four-mile buffer around the project area provided by you via mail (March 5, 2013). Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game – Occupied mule deer distribution exists in the vicinity of the project area. No known occupied bighorn sheep, elk, or pronghorn antelope distributions exist in the vicinity of the project area. Please refer to the attached maps for details regarding big game species distributions relative to the proposed project area.

Greater Sage-Grouse – Greater sage-grouse habitat in the vicinity of the project area is primarily categorized as unsuitable habitat. Please refer to the attached maps for details regarding greater sage-grouse habitat relative to the proposed project area. There are no known greater sage-grouse lek sites in the vicinity of the project area.

Raptors – Various species of raptors, which use diverse habitat types, are known to reside in the vicinity of the project area. American kestrel, bald eagle, barn owl, burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, northern harrier, northern saw-whet owl, osprey, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, and turkey vulture have distribution ranges that include the project area and four-mile buffer area. Furthermore, ferruginous hawk, golden eagle, northern harrier, prairie falcon, red-tailed hawk, and rough-legged hawk have been directly observed in the vicinity of the project area.

Raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, ferruginous hawk, northern goshawk, peregrine falcon, short-eared owl, and Swainson's hawk are NDOW species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan.

No raptor nest sites have been identified by the NDOW in the vicinity of the project area.

Per the *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance* (United States Fish and Wildlife Service 2010) we have extended our raptor nest database query to include bald and golden eagle nest sites within ten miles of the proposed project area. No eagle nests are known to exist within ten miles of the project area.

Other Wildlife Resources

The following species have also been observed in the vicinity of the project area:

| | | |
|-------------------------|---------------------------|----------------------------|
| desert horned lizard | long-nosed leopard lizard | pallid bat |
| glossy snake | long-tailed weasel | western shovel-nosed snake |
| Great Basin gophersnake | | |

The above information is based on data stored at our Reno Headquarters Office, and does not necessarily incorporate the most up to date wildlife resource information collected in the field, nor does this analysis incorporate wildlife resource information maintained by the State of California. Please contact the Habitat Division Supervising Biologist at our Southern Region Las Vegas Office (702.486.5127) to discuss the current environmental conditions for your project area and the interpretation of our analysis. Furthermore, it should be noted that the information detailed above is preliminary in nature and not necessarily an identification of every wildlife resource concern associated with the proposed project. Consultation with the Supervising Habitat biologist will facilitate the development of appropriate survey protocols and avoidance or mitigation measures that may be required to address potential impacts to wildlife resources.

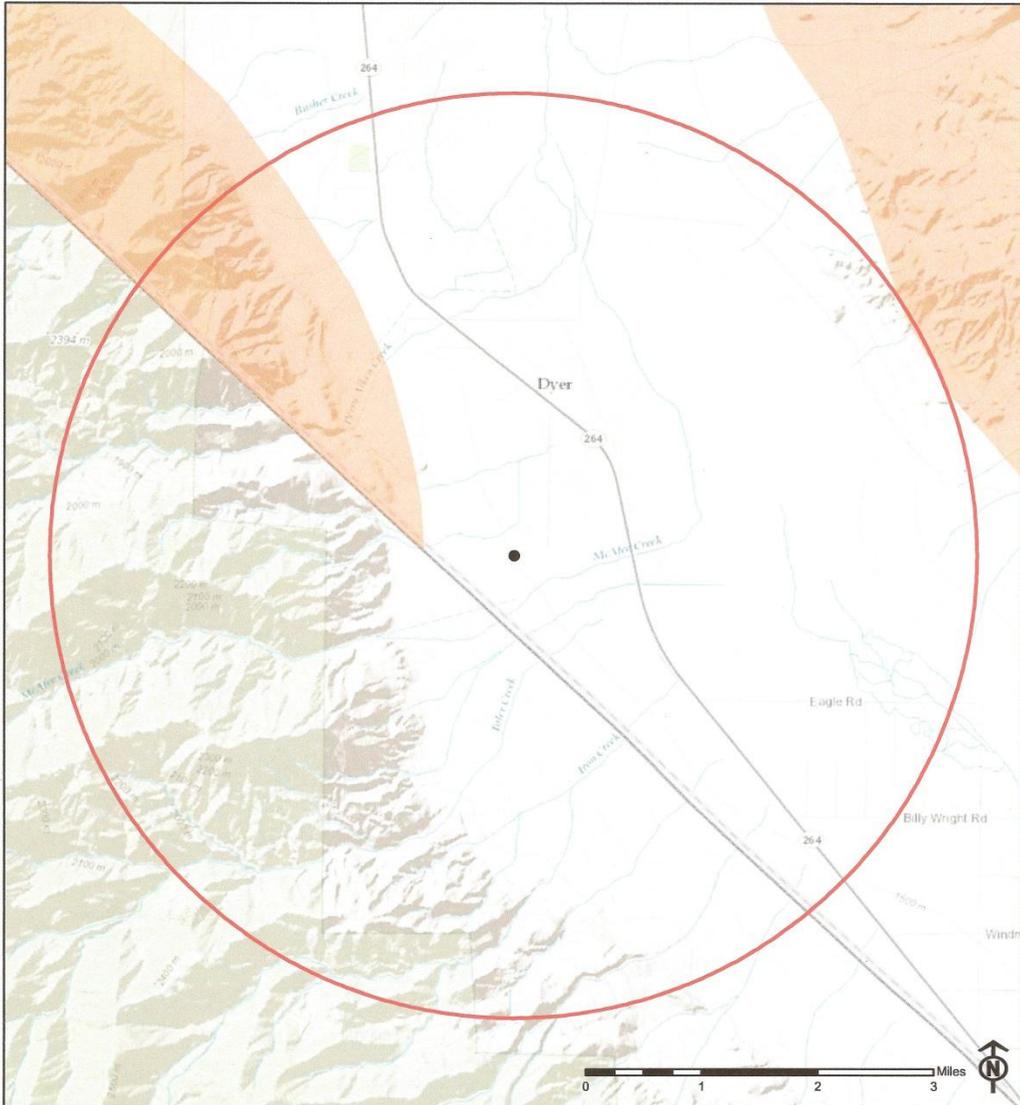
Brad Hardenbrook – Southern Region Supervising Habitat Biologist (ext. 3600)

Federally listed Threatened and Endangered species are also under the jurisdiction of the United States Fish and Wildlife Service. Please contact them for more information regarding these species. Information regarding wildlife resources in California can be requested from the California Department of Fish and Game.

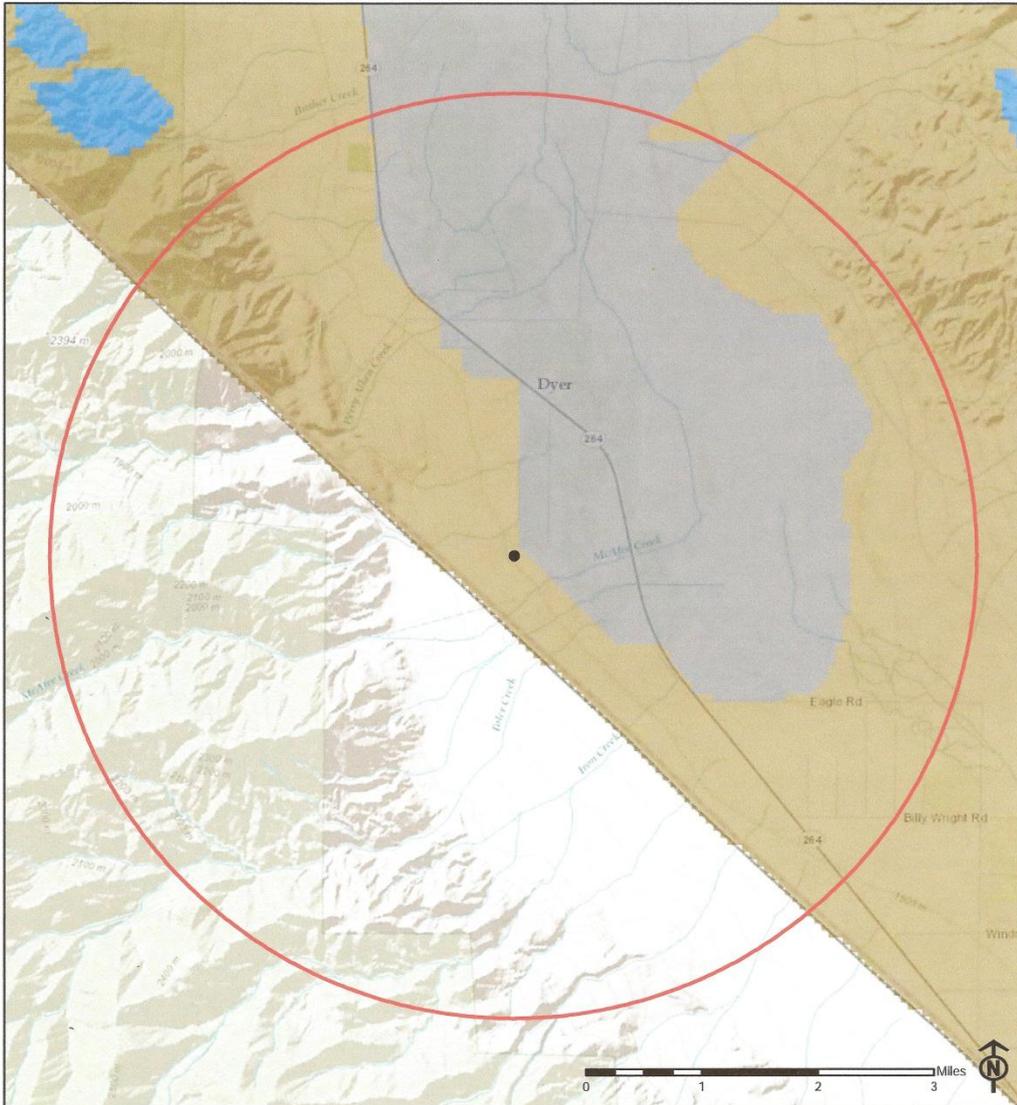
If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1565.

Sincerely,

Timothy Herrick
Conservation Aide III



| | | |
|---|---|---|
| <ul style="list-style-type: none"> ● Telecom Site □ Four-Mile Buffer Area Boundary ■ Mule Deer Distribution □ County Boundary |  <p>Dyer Telecom Site Mule Deer Distribution</p> <p>March 18, 2013</p> <p>Projection: UTM Zone 11 North, NAD83</p> <p>No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data</p> |   |
|---|---|---|



| | |
|--|--|
| ● Telecom Site | 3 - Habitat of Moderate Importance |
| □ Four-Mile Buffer Area Boundary | 4 - Low Value Habitat/Transitional Range |
| Greater Sage-Grouse Habitat Value | |
| □ 1 - Essential/Irreplaceable Habitat | 5 - Unsuitable Habitat |
| □ Pending Completion | □ N/A - Non-Habitat |



**Dyer Telecom Site
Greater Sage-Grouse Habitat**

March 18, 2013

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data




Appendix 3: US Fish & Wildlife Service Reports



United States Department of Interior
Fish and Wildlife Service

Project name: Hickison Summit

Official Species List

Provided by:

NEVADA FISH AND WILDLIFE OFFICE
1340 FINANCIAL BOULEVARD, SUITE 234
RENO, NV 89502
(775) 861-6300
<http://www.fws.gov/nevada/>

Consultation Tracking Number: 08ENVD00-2013-SLI-0170

Project Type: Communications Tower

Project Description: 0.23 acre telecom tower site on ridge top

<http://ecos.fws.gov/ipac>, 04/10/2013 06:22 PM

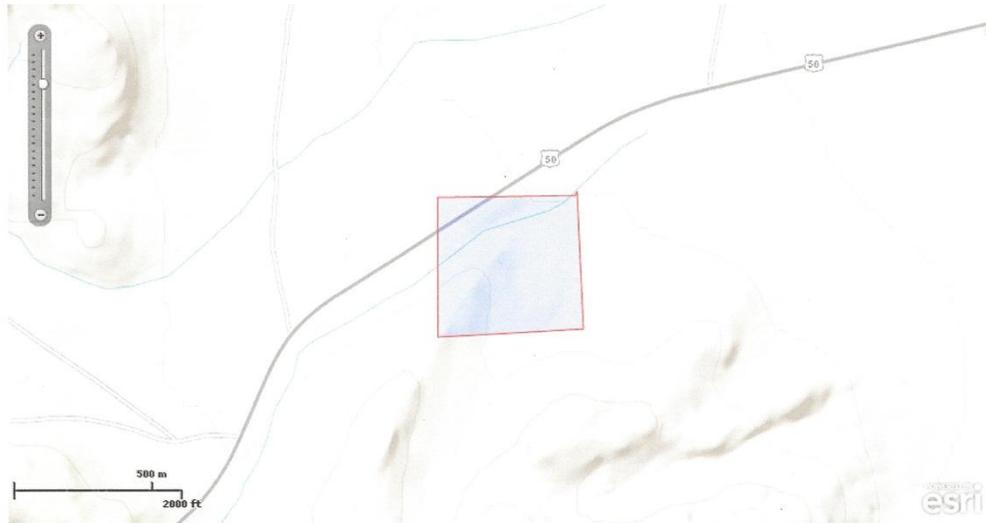
Page 1



United States Department of Interior
Fish and Wildlife Service

Project name: Hickison Summit

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-116.7293582 39.4563614, -116.7235217 39.4564277, -116.7234358 39.4565602, -116.7231784 39.4520504, -116.7293582 39.4517886, -116.7293582 39.4563614)))

Project Counties: Lander, NV

<http://ecos.fws.gov/ipac>, 04/10/2013 06:22 PM

Page 2



United States Department of Interior
Fish and Wildlife Service

Project name: Hickison Summit

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Greater sage-grouse (*Centrocercus urophasianus*)

Population: entire

Listing Status: Candidate

Lahontan cutthroat trout (*Oncorhynchus clarkii ssp. henshawi*)

Population: Entire

Listing Status: Threatened

<http://ecos.fws.gov/ipac>, 04/10/2013 06:22 PM

Page 3



United States Department of Interior
Fish and Wildlife Service

Project name: Kingston

Official Species List

Provided by:

NEVADA FISH AND WILDLIFE OFFICE
1340 FINANCIAL BOULEVARD, SUITE 234
RENO, NV 89502
(775) 861-6300
<http://www.fws.gov/nevada/>

Consultation Tracking Number: 08ENVD00-2013-SLI-0171

Project Type: Communications Tower

Project Description: 0.23 acre telecommunications tower site at intersection of NV 376 and unnamed ranch road.

<http://ecos.fws.gov/ipac>, 04/10/2013 06:26 PM

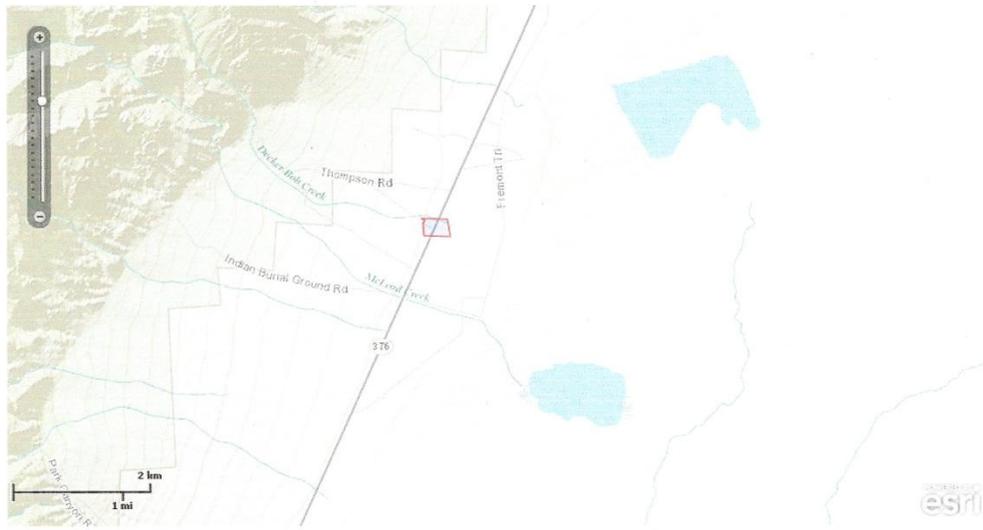
Page 1



United States Department of Interior
Fish and Wildlife Service

Project name: Kingston

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-117.159228 39.0588218, -117.1588761 39.0592217, -117.1595284 39.0594883, -117.1550996 39.059355, -117.1545846 39.0570956, -117.1590563 39.0572222, -117.159228 39.0588218)))

Project Counties: Nye, NV

<http://ecos.fws.gov/ipac>, 04/10/2013 06:26 PM

Page 2



United States Department of Interior
Fish and Wildlife Service

Project name: Kingston

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Greater sage-grouse (*Centrocercus urophasianus*)

Population: entire

Listing Status: Candidate

Lahontan cutthroat trout (*Oncorhynchus clarkii ssp. henshawi*)

Population: Entire

Listing Status: Threatened

<http://ecos.fws.gov/ipac>, 04/10/2013 06:26 PM

Page 3



United States Department of Interior
Fish and Wildlife Service

Project name: Dyer

Official Species List

Provided by:

NEVADA FISH AND WILDLIFE OFFICE
1340 FINANCIAL BOULEVARD, SUITE 234
RENO, NV 89502
(775) 861-6300
<http://www.fws.gov/nevada/>

Expect additional Species list documents from the following office(s):

VENTURA FISH AND WILDLIFE OFFICE
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Consultation Tracking Number: 08ENV00-2013-SLI-0172

Project Type: Communications Tower

Project Description: 0.376 acre telecommunications site adjacent to existing single-lane, dirt ranch road and existing power line.

<http://ecos.fws.gov/ipac>, 04/10/2013 06:30 PM

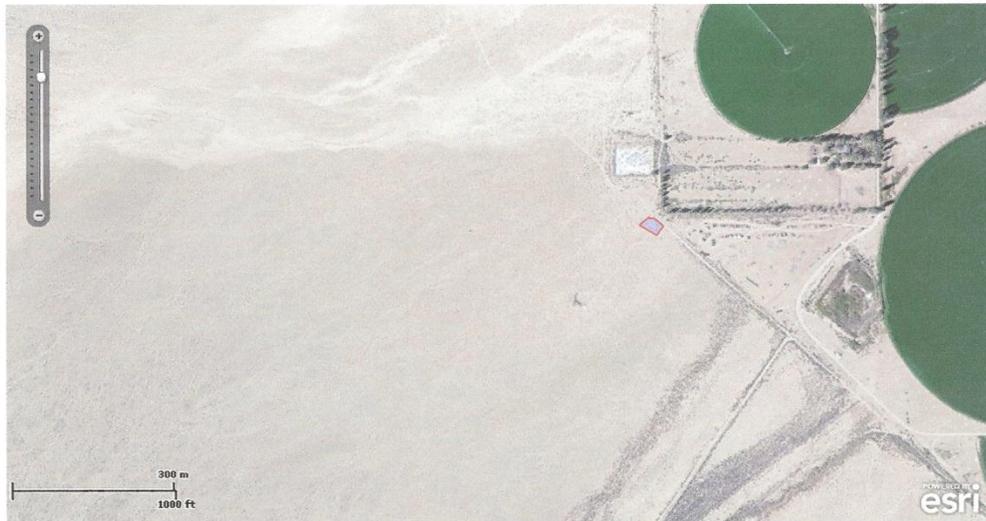
Page 1



United States Department of Interior
Fish and Wildlife Service

Project name: Dyer

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-118.0670242 37.6460855, -118.0669384 37.6460685, -118.0667238 37.6459326, -118.066874 37.6457797, -118.0672388 37.6459496, -118.0670242 37.6460855)))

Project Counties: Esmeralda, NV

<http://ecos.fws.gov/ipac>, 04/10/2013 06:30 PM

Page 2



United States Department of Interior
Fish and Wildlife Service

Project name: Dyer

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Greater sage-grouse (*Centrocercus urophasianus*)

Population: Bi-State

Listing Status: Candidate

Greater sage-grouse (*Centrocercus urophasianus*)

Population: entire

Listing Status: Candidate

<http://ecos.fws.gov/ipac>, 04/10/2013 06:30 PM

Page 3

Appendix 4: Battle Mountain District BLM Sensitive Species List

BLM Nevada Sensitive Species List 2011 Battle Mountain District

Mammals

| Common Name | Species Name |
|-----------------------------|-----------------------------------|
| Pallid bat | <i>Antrozous pallidus</i> |
| Pygmy rabbit | <i>Brachylagus idahoensis</i> |
| Townsend's big-eared bat | <i>Corynorhinus townsendii</i> |
| Big brown bat | <i>Eptesicus fuscus</i> |
| Spotted bat | <i>Euderma maculatum</i> |
| Silver-haired bat | <i>Lasiorycteris noctivagans</i> |
| Western red bat | <i>Lasiurus blossevillii</i> |
| Hoary bat | <i>Lasiurus cinereus</i> |
| Dark kangaroo mouse | <i>Microdipodops megacephalus</i> |
| Pale kangaroo mouse | <i>Microdipodops pallidus</i> |
| California myotis | <i>Myotis californicus</i> |
| Western small-footed myotis | <i>Myotis ciliolabrum</i> |
| Long-eared myotis | <i>Myotis evotis</i> |
| Little brown myotis | <i>Myotis lucifugus</i> |
| Fringed myotis | <i>Myotis thysanodes</i> |
| Cave myotis | <i>Myotis velifer</i> |
| Long-legged myotis | <i>Myotis volans</i> |
| Big free-tailed bat | <i>Nyctinomops macrootis</i> |
| Pika | <i>Ochotona princeps</i> |
| Bighorn sheep | <i>Ovis canadensis</i> |
| Western pipistrelle | <i>Pipistrellus hesperus</i> |
| Brazilian free-tailed bat | <i>Tadarida brasiliensis</i> |
| Fish Spring pocket gopher | <i>Thomomys bottae abstrusus</i> |
| San Antonio pocket gopher | <i>Thomomys bottae curatus</i> |

Birds

| Common Name | Species Name |
|--------------------------------|--|
| Northern goshawk | <i>Accipiter gentilis</i> |
| Golden eagle | <i>Aquila chrysaetos</i> |
| Western burrowing owl | <i>Athene cucularia hypugaea</i> |
| Ferruginous hawk | <i>Buteo regalis</i> |
| Swainson's hawk | <i>Buteo swainsoni</i> |
| Greater sage-grouse | <i>Centrocercus urophasianus</i> |
| Western snowy plover | <i>Charadrius alexandrinus nivosus</i> |
| Western snowy plover | <i>Charadrius alexandrinus nivosus</i> |
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> |
| Peregrine falcon | <i>Falco peregrinus</i> |
| Pinyon jay | <i>Gymnorhinus cyanocephalus</i> |
| Bald eagle | <i>Haliaeetus leucocephalus</i> |
| Loggerhead shrike | <i>Lanius ludovicianus</i> |
| Black rosy-finch | <i>Leucosticte atrata</i> |
| Lewis woodpecker | <i>Melanerpes lewis</i> |

| | |
|------------------|-----------------------------|
| Sage thrasher | <i>Oreoscoptes montanus</i> |
| Brewer's sparrow | <i>Spizella breweri</i> |

Fish

| Common Name | Species Name |
|------------------------------|----------------------------------|
| Railroad Valley springfish | <i>Cremichthys nevadae</i> |
| Fish Lake Valley tui chub | <i>Gila bicolor ssp. 4</i> |
| Hot Creek Valley tui chub | <i>Gila bicolor ssp. 5</i> |
| Railroad Valley tui chub | <i>Gila bicolor ssp. 7</i> |
| Monitor Valley speckled dace | <i>Rhinichthys osculus spp 5</i> |

Amphibians

| Common Name | Species Name |
|--|--------------------------|
| Amagosa toad | <i>Bufo nelsoni</i> |
| Columbia spotted frog (including Toiyabe spotted frog subpopulation) | <i>Rana luteiventris</i> |

Molluscs

| Common Name | Species Name |
|-------------------------|--------------------------------|
| California floater | <i>Anodonta californiensis</i> |
| Southern Duckwater pyrg | <i>Pyrgulopsis anatina</i> |
| Large-gland Carico pyrg | <i>Pyrgulopsis basiglans</i> |
| Carinate Duckwater pyrg | <i>Pyrgulopsis carinata</i> |
| Dixie Valley pyrg | <i>Pyrgulopsis dixensis</i> |
| Oasis Valley pyrg | <i>Pyrgulopsis micrococcus</i> |
| Wongs pyrg | <i>Pyrgulopsis wongi</i> |

Insects

| Common Name | Species Name |
|---------------------------------|---|
| Crescent Dunes aegialian scarab | <i>Aegialia crescenta</i> |
| Aegialian scarab beetle | <i>Aegialia knighti</i> |
| Crescent Dunes aphodius scarab | <i>Aphodius sp. 2</i> |
| Big Smoky wood nymph | <i>Cercyonis oetus alkalorum</i> |
| White River wood nymph | <i>Cercyonis pegala pluvialis</i> |
| White Mountains skipper | <i>Hesperia miriamae longaevicola</i> |
| Railroad Valley skipper | <i>Hesperia uncas fulvapalla</i> |
| White River Valley skipper | <i>Hesperia uncas grandiosa</i> |
| Great Basin small blue | <i>Philotiella speciosa septentrionalis</i> |
| Crescent Dunes serican scarab | <i>Serica ammomenisco</i> |
| Sand Mountain serican scarab | <i>Serica psammobunus</i> |

Plants

| Common Name | Species Name |
|----------------------------|------------------------------------|
| Eastwood milkweed | <i>Asclepias eastwoodiana</i> |
| Cima milkvetch | <i>Astragalus cimae var. cimae</i> |
| Needle Mountains milkvetch | <i>Astragalus eurylobus</i> |
| Black woollypod | <i>Astragalus funereus</i> |
| Tonopah milkvetch | <i>Astragalus pseudiodanthus</i> |
| Toquima milkvetch | <i>Astragalus toquimanus</i> |
| Currant milkvetch | <i>Astragalus uncialis</i> |

| | |
|-----------------------------|--|
| Elko rockcress | <i>Boechea falcifructa</i> |
| Monte Neva paintbrush | <i>Castilleja salsuginosa</i> |
| Tecopa birdbeak | <i>Cordylanthus tecopensis</i> |
| Goodrich biscuitroot | <i>Cymopterus goodrichii</i> |
| Nevada willowherb | <i>Epilobium nevadense</i> |
| Windloving buckwheat | <i>Eriogonum anemophilum</i> |
| Beatley buckwheat | <i>Eriogonum beatleyae</i> |
| Lewis buckwheat | <i>Eriogonum lewisii</i> |
| Tiehm buckwheat | <i>Eriogonum tiehmii</i> |
| Sunnyside green gentian | <i>Frasera gypsicola</i> |
| Smooth dwarf greasebush | <i>Glossopetalon pungens var. glabrum</i> |
| Sand cholla | <i>Grusonia pulchella</i> |
| Rock purpusia | <i>Ivesia arizonica var. saxosa</i> |
| Waxflower | <i>Jamesia tetrapetala</i> |
| Lunar Crater buckwheat | <i>Johanneshowellia crateriorum</i> |
| Holmgren lupine | <i>Lupinus holmgrenianus</i> |
| Oryctes | <i>Oryctes nevadensis</i> |
| Low feverfew | <i>Parthenium ligulatum</i> |
| Pahute Mesa beardtongue | <i>Penstemon pahutensis</i> |
| Lahontan beardtongue | <i>Penstemon palmeri var. macranthus</i> |
| Bashful beardtongue | <i>Penstemon pudicus</i> |
| Tiehm beardtongue | <i>Penstemon tiehmii</i> |
| Clarke phacelia | <i>Phacelia filiae</i> |
| Least phacelia | <i>Phacelia minutissima</i> |
| Williams combleaf | <i>Polyctenium williamsiae</i> |
| Blaine pincushion | <i>Sclerocactus blainei</i> |
| Tonopah pincushion | <i>Sclerocactus nyensis</i> |
| Nachlinger catchfly | <i>Silene nachlingerae</i> |
| Holmgren Smelowskia | <i>Smelowskia holmgrenii</i> |
| Railroad Valley globemallow | <i>Sphaeralcea caespitosa var. williamsiae</i> |
| Lone Mountain goldenhead | <i>Tonestus graniticus</i> |
| Currant Summit clover | <i>Trifolium andinum var. podocephalum</i> |
| Rock violet | <i>Viola lithion</i> |

*Although this list is intended for the sensitive species that may occur within the Battle Mountain District, use this list in conjunction with the BLM Nevada state list. Species from the state list may occur that are not on this list.

Appendix 5 Risk Assessment for Noxious & Invasive Weeds

Arizona Nevada Tower Corporation Hickison Summit Telecommunications Site Lander County, Nevada

On 1 May 2013 a noxious/invasive weed risk assessment was conducted for the proposed Arizona Nevada Tower Corporation (ANTC) Hickison Summit Telecommunications Facility in southeastern Lander County. ANTC seeks a right of way (ROW) from Battle Mountain District, Bureau of Land Management (BMDO BLM) so as to construct a microwave relay station to improve cell phone and internet service in the project vicinity. The proposed project is part of the Broadband Initiative Program authorized under the American Recovery and Reinvestment act of 2009. Permanent disturbance of approximately 0.23 acre of public land would accrue if the project is authorized.

Prior to conducting the field reconnaissance, BLM (2011) sources were consulted and revealed that Russian knapweed (*Centaurea repens*) and Hoary cress (*Cardaria draba*) infestations had previously been documented along US Highway 50 in the vicinity of the project site.

During an initial site visit (25 September 2012), halogeton (*Halogeton glomeratus*) was identified along the access road connecting US 50 and the project site, and on presently disturbed areas adjacent to the Nevada Department of Transportation (NDOT) microwave tower currently operating on Hickison Summit. On 1 May 2013 the project site, vicinity and access road were again examined and halogeton was again noted. In addition, on 1 May 2013 the US 50 shoulders were examined for a distance of two to three miles east and west of the access road junction. No knapweed or cress was observed. However, because the Highway's shoulders had been recently bladed, surface evidence of local infestations may have been obscured.

The following BLM protocol was applied to establish risk of introducing new or spreading existing infestations of noxious/invasive weeds.

Factor 1. Assess likelihood of noxious/invasive weeds spreading into project area.

| | |
|-------------------------|---|
| None (0) | Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in establishment of noxious/invasive weed species in the project area. |
| Low (1 – 3) | Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent spread of weeds into the project area. |
| Moderate (4 – 7) | Noxious/invasive weed species are located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested even when preventative management actions are followed. Control measures are essential to prevent spread within the project area. |

| | |
|----------------------|---|
| High (8 – 10) | Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative actions, are likely to result in establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area. |
|----------------------|---|

For this project, Factor 1 rates as Moderate (4). Although no knapweed or cress introduction appears likely, newly disturbed ground associated with project construction will likely provide new habitat for halogeton.

Factor 2. Assess consequences of noxious/invasive weeds in the project area.

| | |
|-----------------------------------|--|
| Nonexistent to Low (1 – 3) | None. No cumulative effects expected. |
| Moderate (4 – 7) | Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited. |
| High (8 – 10) | Obvious adverse effects within the project area and probable expansion of infestations to lands outside the project area. Adverse cumulative effects on native plant communities are probable. |

For this project, Factor 2 rates as Low (2). Halogeton is already prevalent in disturbed areas on Hickison Summit – some of which would be incorporated into ANTC’s proposed site. Site and vicinity surveys have not revealed incidence of halogeton beyond the presently disturbed areas, thus any project-associated spread will likely be confined to new disturbance and not imposed upon the surrounding plant community.

Risk Rating (Factor 1 x Factor 2).

| | |
|---------------------------|--|
| None (0) | Proceed as planned. |
| Low (1 – 10) | Proceed as planned. Initiate control treatment on noxious/invasive weed populations that establish in area. |
| Moderate (11 – 49) | Develop preventative management measures to reduce risk of introducing or spreading noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area and establishing desirable species in disturbed sites. Monitor area for at least 3 consecutive years; provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |
| High (50 – 100) | Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed sites and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |

This project rates as Low risk (8).

To further reduce risk of introducing new noxious/invasive weed species, all project-related equipment will be cleaned prior to each project site entry.

Literature Cited

BLM. 2011. Battle Mountain RMP/EIS, Station 6: Noxious weed infestations. US Bur. Land Mgmt. Jan. 2011 Risk Assessment for Noxious & Invasive Weeds

Arizona Nevada Tower Corporation
Kingston Telecommunications Site
Nye County, Nevada

On 2 May 2013 a noxious/invasive weed risk assessment was conducted for the proposed Arizona Nevada Tower Corporation (ANTC) Kingston Telecommunications Facility in northern Nye County. ANTC seeks a right of way (ROW) from Battle Mountain District, Bureau of Land Management (BMDO BLM) so as to construct a microwave relay station to improve cell phone and internet service in the project vicinity. The proposed project is part of the Broadband Initiative Program authorized under the American Recovery and Reinvestment act of 2009. Permanent disturbance of approximately 0.35 acre of public land would accrue if the project is authorized.

Prior to conducting the field reconnaissance, BLM (2011) sources were consulted and revealed that Russian knapweed (*Centaurea repens*), Hoary cress (*Cardaria draba*) and Scotch thistle (*Onopordum acanthium*) infestations had previously been documented along Nevada State Route 376 in the vicinity of the project site.

This proposed project site was initially visited on 25 September 2012. Russian thistle (*Salsola tragus*) and halogeton (*Halogeton glomeratus*) were noted along both nearby SR 376 and the ranch road adjacent to which the tower site would be built. On 2 May 2013 the site was again visited and local presence of Russian thistle and halogeton re-documented along the road edges. No evidence of noxious/invasive weeds was noted on-site. As part of this assessment, the road shoulders along SR 376 were examined for a distance of between two and three miles north and south of the SR 376/ranch road intersection. No evidence of knapweed, cress or Scotch thistle was observed adjacent to the highway.

The following BLM protocol was applied to establish risk of introducing new or spreading existing infestations of noxious/invasive weeds.

Factor 1. Assess likelihood of noxious/invasive weeds spreading into project area.

| | |
|-------------------------|---|
| None (0) | Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in establishment of noxious/invasive weed species in the project area. |
| Low (1 – 3) | Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent spread of weeds into the project area. |
| Moderate (4 – 7) | Noxious/invasive weed species are located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested even when preventative management actions are followed. Control measures are essential to prevent spread within the project area. |
| High (8 – 10) | Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative actions, are likely to result in establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area. |

Factor 1 rates as Low (3) for this project. Although it appears unlikely that knapweed, cress or Scotch thistle will be introduced into the project area as a result of this project,

disturbed ground resulting from project construction may provide new habitat for the nearby Russian thistle and halogeton infestations.

Factor 2. Assess consequences of noxious/invasive weeds in the project area.

| | |
|-----------------------------------|--|
| Nonexistent to Low (1 – 3) | None. No cumulative effects expected. |
| Moderate (4 – 7) | Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited. |
| High (8 – 10) | Obvious adverse effects within the project area and probable expansion of infestations to lands outside the project area. Adverse cumulative effects on native plant communities are probable. |

Factor 2 rates as Low (3) for this project. While existing infestations of Russian thistle and halogeton are presently confined to highly disturbed areas along nearby roads, new project-related disturbance may facilitate spread of these species into the project site. However, as current roadside infestations have not already expanded into adjoining areas (despite disturbance associated with frequent cattle traffic), there appears to be small likelihood that the proposed project would unilaterally facilitate such an expansion.

Risk Rating (Factor 1 x Factor 2).

| | |
|---------------------------|--|
| None (0) | Proceed as planned. |
| Low (1 – 10) | Proceed as planned. Initiate control treatment on noxious/invasive weed populations that establish in area. |
| Moderate (11 – 49) | Develop preventative management measures to reduce risk of introducing or spreading noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area and establishing desirable species in disturbed sites. Monitor area for at least 3 consecutive years; provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |
| High (50 – 100) | Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed sites and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |

This project rates as Low Risk (9).

To further reduce risk of introducing new noxious/invasive weed species or precipitating expansion of existing infestations, all project-related equipment will be cleaned prior to each project site entry.

Literature Cited

BLM. 2011. Battle Mountain RMP/EIS, Station 6: Noxious weed infestations. US Bur. Land Mgmt. Jan. 2011

Risk Assessment for Noxious & Invasive Weeds

Arizona Nevada Tower Corporation Dyer Telecommunications Site Esmeralda County, Nevada

On 3 May 2013 a noxious/invasive weed risk assessment was conducted for the proposed Arizona Nevada Tower Corporation (ANTC) Dyer Telecommunications Facility in northwestern Esmeralda County. ANTC seeks a right of way (ROW) from Battle Mountain District, Bureau of Land Management (BMDO BLM) so as to construct a microwave relay station to improve cell phone and internet service in the project vicinity. The proposed project is part of the Broadband Initiative Program authorized under the American Recovery and Reinvestment act of 2009. Permanent disturbance of approximately 0.38 acre of public land would accrue if the project is authorized.

Prior to conducting the field reconnaissance, BLM (2011) sources were consulted and revealed that tamarisk (aka salt cedar, *Tamarix rammosissima*) has previously been documented within and around the Dyer settlement.

This proposed project site was initially visited on 26 September 2012 and found to be already heavily disturbed – possibly part of an old fire scar. Russian thistle (*Salsola tragus*) was noted as ubiquitous across both the site and surrounding vicinity. On 3 May 2013 the site was again visited and heavy presence of *Salsola* re-confirmed. No tamarisk presently grows on or immediately adjacent to the project site, which appears too dry to support it, but the species is common within irrigated areas in the nearby Dyer development.

The following BLM protocol was applied to establish risk of introducing new or spreading existing infestations of noxious/invasive weeds.

Factor 1. Assess likelihood of noxious/invasive weeds spreading into project area.

| | |
|-------------------------|---|
| None (0) | Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in establishment of noxious/invasive weed species in the project area. |
| Low (1 – 3) | Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent spread of weeds into the project area. |
| Moderate (4 – 7) | Noxious/invasive weed species are located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested even when preventative management actions are followed. Control measures are essential to prevent spread within the project area. |
| High (8 – 10) | Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative actions, are likely to result in establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area. |

Factor 1 rates as None (0) for this project. There is no likelihood that Russian thistle *will* spread into the project area because it is already well established there. And as the site

will not become wetter if the ANTC facility is constructed, there is small likelihood of tamarisk invading the site as a result of the project.

As no other noxious/invasive weed species apparently occupy the Dyer area, it is unlikely that the proposed project would induce spread of any other local noxious weed populations.

Factor 2. Assess consequences of noxious/invasive weeds in the project area.

| | |
|-----------------------------------|--|
| Nonexistent to Low (1 – 3) | None. No cumulative effects expected. |
| Moderate (4 – 7) | Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited. |
| High (8 – 10) | Obvious adverse effects within the project area and probable expansion of infestations to lands outside the project area. Adverse cumulative effects on native plant communities are probable. |

As no new infestations are anticipated, Factor 2 rates as Low (1) for this project.

Risk Rating (Factor 1 x Factor 2).

| | |
|---------------------------|--|
| None (0) | Proceed as planned. |
| Low (1 – 10) | Proceed as planned. Initiate control treatment on noxious/invasive weed populations that establish in area. |
| Moderate (11 – 49) | Develop preventative management measures to reduce risk of introducing or spreading noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area and establishing desirable species in disturbed sites. Monitor area for at least 3 consecutive years; provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |
| High (50 – 100) | Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed sites and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established weed populations and follow-up treatment for previously treated infestations. |

Risk rating for this project is None (0). However, to assure that no new species are introduced as a result of the project, all project-associated equipment will be cleaned prior to each project site entry.

Literature Cited

BLM. 2011. Battle Mountain RMP/EIS, Station 6: Noxious weed infestations. US Bur. Land Mgmt. Jan. 2011

Appendix 6

Visual Resource Assessment

Arizona Nevada Tower Corporation Dyer Telecommunications Facility Esmeralda County, Nevada

Introduction

Arizona Nevada Tower Corporation (ANTC) proposes to place a telecommunications relay facility near the Dyer settlement on Nevada State Route (SR) 264 in Esmeralda County (Map 1). The facility would be located approximately one and a half miles (2.4 kilometers) south of the settlement, and immediately west of active agricultural lands. About one mile (1.6 km) west of the site, the White Mountain front rises abruptly.

ANTC's project is funded under the American Recovery and Reinvestment Act of 2009 (ARRA)²¹ and, as part of the Broadband Initiative Project, is designed to expand cell phone service and internet capability in rural Nevada.

A visual resource assessment of this project was conducted 3 May 2013.

Project Description

The proposed Dyer compound would consist of a six-foot high cyclone fenced 100-foot-square area (0.23 ac.). Contained within would be a self-supporting 195-foot-tall steel lattice tower and a 10-foot by 16-foot radio equipment shelter and meter bank on two concrete footers. Access would be via a new 20-foot-wide by 100-foot-long dirt road (0.046 ac.) spurring from an existing track that passes southeast of the site. A new 20-foot-wide by 225-foot-long (0.1 ac.) electric service corridor would run from a nearby power line to the facility's northeast corner²². Total disturbance associated with this project would be approximately 0.38 acre.

Current Visual Situation

The proposed tower site is located in an area of mixed Visual Resource Management (VRM) Class III (on the east) and Class IV public lands (on the west). The Bureau of Land Management's (BLM) management objective for Class III lands is to "Partially retain existing character of landscape; level of change to characteristic landscape should be moderate", while the objective for Class IV lands is to "Provide for management

²¹ Public Law 111-5 ('Stimulus Act'), adopted by the 111th U.S. Congress, February 2009

²² Local electric utility Valley Electric Association will apply for the power line right-of-way.

activities (sic) which require major modification of existing character of landscape. Level of change to characteristic landscape can be high” (BLM 2011).

Map 1. Locations of proposed Arizona Nevada Tower Corporation telecommunications facilities in Lander, Nye and Esmeralda counties, Nevada.

Nevada State Route (SR) 264 provides primary access through the Dyer vicinity. The local landscape is underscored by stark contrasts between the flat Fish Lake Valley to the east, and the massive topography of the sharply rising White Mountains to the immediate west. Situated between the two, and visible from a distance as an oasis of green on the edge of a dry, windswept valley, Dyer provides a traveler with almost a sense of relief.

Potential Project Impacts

If constructed, the Dyer facility’s 195-foot high tower would be the tallest man-made or man-placed object in the area, rising well above any of the community’s trees or structures.

Northbound travelers on SR 264 would probably begin to see the tower from about milepost 1 (Photo 1), where the highway crests an alluvial fan and first brings the Dyer settlement into view. From that point, however, the tower would be dwarfed by and probably lost against the White Mountain front.



Photo 1. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 1, Nevada State Route 264, Esmeralda County. The tower site location would be to the left of the distant tree line. View to northwest.

As the approach to Dyer continued (photos 2 & 3), the tower would become increasingly visible against the relatively light colored alluvial fan surface behind it. Still, from this viewpoint its location on the extreme left of the Dyer settlement would make its presence somewhat less intrusive than if it were more centrally located. Regardless, the tower would remain prominent in the western view-field until the traveler entered Dyer, where local trees would begin to screen it from further view.



Photo 2. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 3, Nevada State Route 264, Esmeralda County. The tower site would be located behind the small copse of trees above the mile marker sign. View to west-northwest.

Southbound SR 264 travelers would probably begin to notice the tower from about milepost 11 (Photo 4). From that point, however, its base would be hidden behind trees, while its upper sections would probably be at least partially masked against the distant mountains. As the approach to Dyer continued, the tower's position would gradually shift to the right of the view-field as SR 264's track turned from south to southeast just before entering Dyer. During the approach, the tower might briefly project above the local skyline.

Residents living in the central part of Dyer would probably find the tower almost entirely masked from view by local trees. Residents living beyond the central settlement would probably find the tower almost continuously visible, depending upon their angle of view.



Photo 3. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 5, Nevada State Route 264, Esmeralda County. The tower site would be located behind the brown structure above the mile marker sign. View to west-northwest.



Photo 4. Proposed Arizona Nevada Tower Corporation Dyer tower site from milepost 11, Nevada State Route 264, Esmeralda County. The tower site would be located at about photo center, behind the trees directly above the mile marker sign. Note the Valley Electric Association tower against the hill at the lower end of the long slope. View to south-southeast.

Potential for Modifying the Project to Ameliorate Visual Impacts

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating the proposed tower site or modifying the tower height. Consideration has already been given to using the existing Valley Electric Association tower in Dyer. However, VEA's facility does not contain sufficient room for ANTC's equipment, and the VEA tower is incapable of supporting ANTC's microwave dishes.

The galvanized steel tower would have a dull appearance. If painting were required, colors would be selected from the BLM Standard Environmental Color Chart or an approved Federal Communications Commission (FCC) color scheme.

Literature Cited

BLM. 2011. RMP planning fact sheet Visual Resource Management. Bur. Land Mgmt. Battle Mtn. Dist. Off. www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/rmp.com

Visual Resource Assessment

Arizona Nevada Tower Corporation Hickison Summit Telecommunications Facility Lander County, Nevada

Introduction

Arizona Nevada Tower Corporation (ANTC) proposes to place a telecommunications relay facility along US Highway 50 east of Austin in southeast Lander County (Map 1). The facility would be located approximately one mile (1.6 kilometers) east of the Highway at approximately milepost (MP) 50, in the northern end of the Toquima Range.

ANTC's project is funded under the American Recovery and Reinvestment Act of 2009 (ARRA)²³ and, as part of the Broadband Initiative Project, is designed to expand cell phone service and internet capability in rural Nevada.

A visual resource assessment of this project was conducted 1 May 2013.

Project Description

The Hickison Summit facility would encompass an unfenced 100-foot-square area (10,000 square feet; approximately 0.23 acre). The primary structure is a 100-foot-tall, self-supporting steel lattice tower. Ancillary features include a 10-foot by 26-foot radio equipment shelter; a 4-foot by 6-foot concrete pad supporting a back-up propane generator; two 3-foot by 6-foot concrete pads supporting one 500-gallon propane tank each; and an approximately 20-foot by 30-foot solar field consisting of 40 photovoltaic solar panels and batteries.

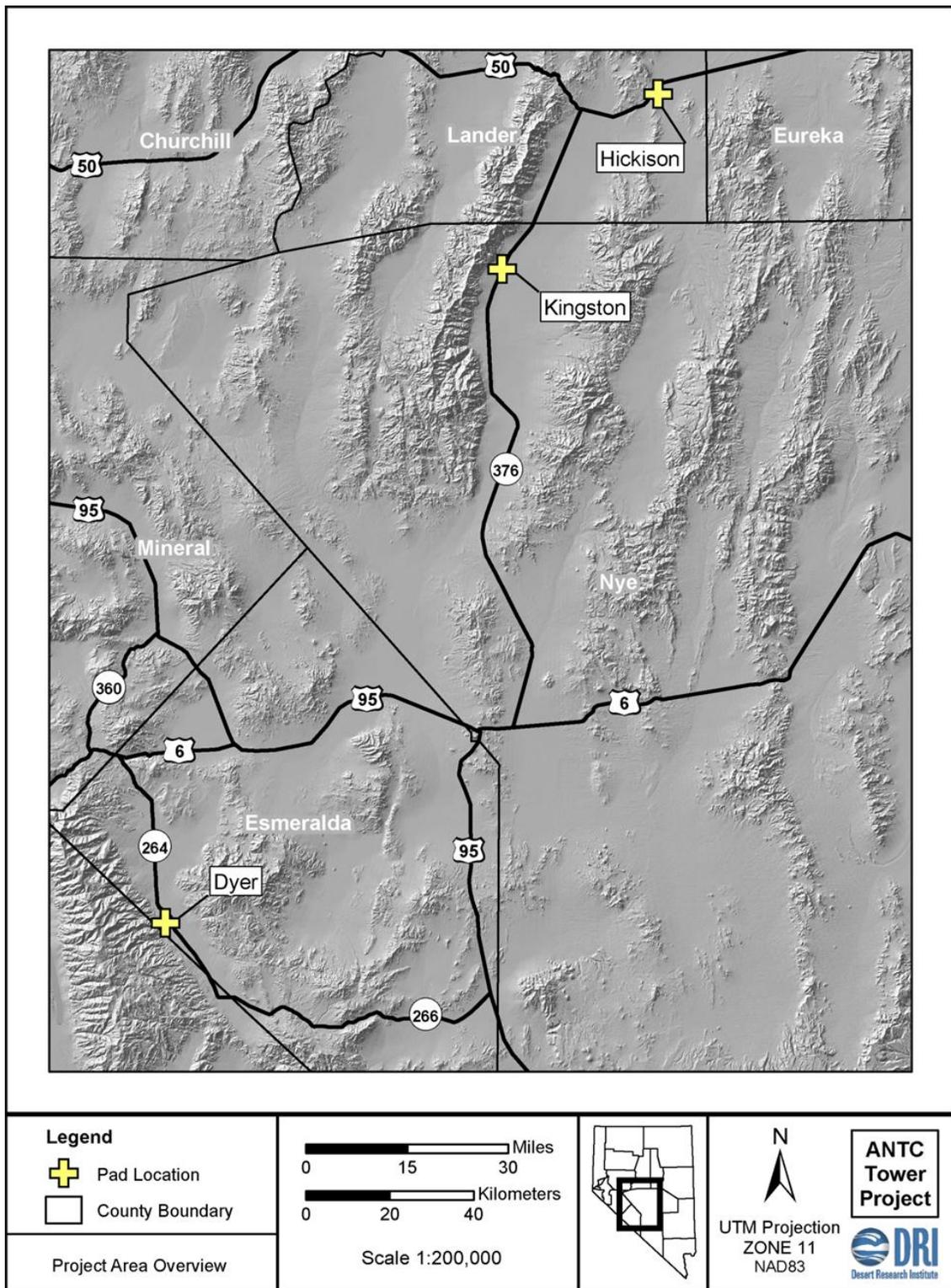
Access would be via the existing dirt track connecting US Highway 50 to a previously installed Nevada Department of Transportation (NDOT) microwave relay tower atop the same hill on which the ANTC facility would be placed.

A total permanent disturbance area of 0.23 acre is anticipated.

Current Visual Situation

The proposed tower site is located on Visual Resource Management (VRM) Class IV public lands managed by the US Bureau of Land Management (BLM). BLM's management objective for Class IV lands is to "Provide for management activities (sic) which require major modification of existing character of landscape. Level of change to characteristic landscape can be high" (BLM 2011).

²³ Public Law 111-5 ('Stimulus Act'), adopted by the 111th U.S. Congress, February 2009



Map 1. Locations of proposed Arizona Nevada Tower Corporation telecommunications sites in Lander, Nye and Esmeralda counties, Nevada.

Approaches to Hickison Summit are presently dominated by broad vistas of valleys and close-by and distant mountains and ridgelines. Except for periodic road signs, side road junctions, the occasional distant ranch building and the existing NDOT Hickison Summit facility, there is little to distract the traveler from the natural setting. Because the landscape here is large and expansive, these relatively speaking small intrusions are quickly superseded by the natural setting.

Potential Project Impacts

If constructed, ANTC's facility would be visible to travelers on US 50 from a distance of about 9 miles (14.4 km) west and seven miles (11.2 km) east of Hickison Summit. The site would also be visible from some campsites in the Hickison Summit Petroglyph Recreation Area camp ground, located approximately 0.5 miles (0.8 km) west of US 50. Similarly, the tower site would be intermittently visible from local ranch roads.

Moving east from Austin, US 50 travelers would first begin to notice the tower site at about milepost 41 (Photo 1). From that point the facility would become increasingly visible (photos 2 & 3) until, at about milepost 45.5, it would be skylined in the center of the traveler's view. Beyond milepost 45.5 US50 swings north and local hills would block the tower from view until the traveler crested Hickison Summit, where the tower would again become visible on the right. East of Hickison Summit, the tower would be behind the traveler and out of sight.



Photo 1. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 41, Lander County, Nevada. Tower site is atop distant hill in photo center. View to northeast.



Photo 2. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 42, Lander County, Nevada. The Nevada Department of Transportation's microwave site is becoming visible atop the distant hill in photo center. From this vantage point, ANTC's facility would be directly behind NDOT's. View to northeast.

Westbound travelers on US 50 would begin to see the tower site at about milepost 57, near the Eureka/Lander County line (Photo 4). At that point, however, the distant Toiyabe Range dwarfs the nearby Toquimas and the tower, though noticeable, would probably have little impact on the overall view. At about milepost 54.4 (Photo 5) the angle of view from the Highway projects the Toquima foothills above the Toiyabes, skylining the tower. This scenario generally continues during the approach to Hickison Summit, although the tower site also gradually drifts into the left (south) portion of the viewshed, making it somewhat less intrusive. At about milepost 50 (Photo 6), the tower's proximity would clearly draw the eye.

The proposed tower site would be visible (Photo 7) from some lower campsites in the Hickison Summit Petroglyph Recreation Area campground, located just north of Hickison Summit and about 0.5 mile (0.8 km) west of US 50. Campground views of the tower site are, however, frequently shielded by pinyon pine (*Pinus monticola*) and juniper (*Juniperus occidentalis*) trees shading the campsites.



Photo 3. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 45.5, Lander County, Nevada. Nevada Department of Transportation’s microwave relay station, located immediately south of the ANTC site, is plainly visible on the hill in photo center. View to northeast.



Photo 4. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 milepost 57.1 (Ackerman Canyon Road), Lander County, Nevada. Tower site is at photo center, atop the highest hill in the near (Toquima) range. View to southwest.



Photo 5. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 54.4 (Grimes Ranch Road), Lander County, Nevada. Tower site is atop hill in photo center. View to southwest.



Photo 6. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from US Highway 50 at approximately milepost 49.9 (Dry Creek Road), Lander County, Nevada. The Nevada Department of Transportation microwave relay station, located immediately right (south) of the ANTC site, is clearly visible. View to south.



Photo 7. Proposed Arizona Nevada Tower Corporation *Hickison Summit* tower site from a lower Hickison Summit Petroglyph Recreation Area campsite, Lander County, Nevada. The Nevada Department of Transportation microwave relay facility, located immediately right of the ANTC site, is plainly visible. View to south.

Potential for Modifying the Project to Ameliorate Visual Impacts

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating the proposed tower site or modifying the tower height. Consideration has already been given to using the existing Nevada Department of Transportation facility on Hickison Summit. However, NDOT's tower is incapable of supporting ANTC's microwave dishes.

The galvanized steel tower would have a dull appearance. If painting were required, colors would be selected from the BLM Standard Environmental Color Chart or an approved Federal Communications Commission (FCC) color scheme.

Literature Cited

BLM. 2011. RMP planning fact sheet Visual Resource Management. Bur. Land Mgmt. Battle Mtn. Dist. Off.

www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/rmp.com

Visual Resource Assessment

Arizona Nevada Tower Corporation Kingston Telecommunications Facility Nye County, Nevada

Introduction

Arizona Nevada Tower Corporation (ANTC) proposes to place a telecommunications relay facility along Nevada State Route (SR) 376, approximately 25 miles (40 kilometers) north of Round Mountain in northwestern Nye County (Map 1). The facility would be located immediately northwest of SR 376's junction with an unnamed ranch road near SR 376 milepost (MP) 73. The site lies along the west margin of Big Smoky Valley, on the toe of an alluvial fan emanating from the closely adjacent Toiyabe Range.

ANTC's project is funded under the American Recovery and Reinvestment Act of 2009 (ARRA)²⁴ and, as part of the Broadband Initiative Project, is designed to expand cell phone service and internet capability in rural Nevada.

A visual resource assessment of the project was conducted 2 May 2013.

Project Description

The proposed Kingston facility would consist of a barbed-wire-topped, 6-foot-high chain link-fenced 100-foot-square area (10,000 ft²; 0.23 ac.). Enclosed within would be a 120-foot-tall, self-supporting steel lattice tower and an 8-foot by 16-foot equipment shelter and meter bank resting on two concrete footers.

A 20-foot-wide by 210-foot-long (4200 ft²; 0.1 ac.) access road would be cut northeast from the unnamed road to the facility site. An approximately 200-foot-long power line²⁵ would be strung to the site from the existing power line paralleling the unnamed road's north side. The new 20-foot wide power line corridor would initially run diagonally from the existing electrical supply to the new access road (approximately 40 ft.), and would thereafter follow the road's west side to the site itself. New disturbance associated with the power line would be 800 square feet (0.018). Total new disturbance associated with this facility would be about 0.35 acre.

Current Visual Situation

²⁴ Public Law 111-5 ('Stimulus Act'), adopted by the 111th U.S. Congress, February 2009

²⁵ Local electric utility Sierra Pacific Power will apply for the power line right-of-way.

The proposed tower site is located on Visual Resource Management (VRM) Class III public lands managed by the US Bureau of Land Management (BLM). BLM's management objective for Class III lands is to "Partially retain existing character of landscape; level of change to characteristic landscape should be moderate" (BLM 2011).

Currently, approaches to the Kingston site vicinity are highlighted by contrasts between the massive, often sharply rising Toiyabe Range front to the west, and the broad expanses of Great Smoky Valley and the more distant Toquima Range to the east.

Irregularly spaced developments, including ranch houses and other ranch-associated buildings, ornamental trees and tree lines planted as windbreaks, ranching equipment, roads, fields and livestock attest the long human occupation of this region. Locally, the larger developments lie mostly to the east (Valley side) of SR 376, but occasional, mostly smaller developments dot lands west of the Highway and toward the mountain front.

Travel through this clearly rural and agricultural area is an unhurried affair, providing both residents and visitors with abundant opportunities to appreciate the true immensity of central Nevada's Basin and Range topography. And while the traveler's eye cannot help but notice the human element here, it is the natural features that dominate the field of vision.

Potential Project Impacts

If established, ANTC's Kingston facility would first become visible to southbound travelers on SR 376 between mileposts 77 and 76 (Photo 1). Initially, the 120-foot high tower would not be particularly intrusive, but it would gradually become larger and more visible during the approach to milepost 73, roughly opposite the tower site.

Northbound SR 376 travelers would begin to notice the tower at about milepost 71. At that point it would be largely masked by the Toiyabe front, but would become more prominent as milepost 73 was neared. In close proximity to milepost 73, the northbound angle of view from SR 376 might briefly project the tower above the natural skyline.

People living along the ranch road adjacent to which the tower site would be located would find a new and permanent intrusion into their easterly viewshed (Photo 3). From their vantage point the tower would project well above the existing power poles and into their view of Big Smoky Valley.

Map 1. Locations of proposed Arizona Nevada Tower Corporation telecommunications sites in Lander, Nye and Esmeralda counties, Nevada.



Photo 1. Proposed Arizona Nevada Tower Corporation *Kingston* tower site from milepost 76 on Nevada State Route 376, Nye County. The site would be located slightly left of the point at which the highway fades from view in photo center. From this position the 120-foot high tower would be only slightly visible against the alluvial fans emanating from Park and Trail canyons in the Toiyabe Range. View to southwest.



Photo 2. Proposed Arizona Nevada Tower Corporation *Kingston* tower site from milepost 71 on Nevada State Route 376, Nye County. The tower would be located just above the point at which the highway fades from view in photo center. From this perspective the tower would be largely invisible against the alluvial fan sloping east from the Toiyabe Range. View to northeast.



Photo 3. Proposed Arizona Nevada Tower Corporation Kingston tower site from unnamed ranch road west of milepost 73 on Nevada State Route 376, Nye County. Tower site location is just left (north) of the ranch road/SR 376 junction in photo center. From this vantage point the 120-foot high tower would project well into the bare flat of Great Smoky Valley. View to southeast.

Potential for Modifying the Project to Ameliorate Visual Impacts

Line of sight and between-tower distance requirements necessary for successful microwave transmission and reception prevent consideration of significantly relocating the proposed tower site or modifying the tower height.

Using natural color schemes to mute the facility's appearance is possible.

Literature Cited

BLM. 2011. RMP planning fact sheet Visual Resource Management. Bur. Land Mgmt. Battle Mtn. Dist. Off.
www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/rmp.com

Appendix 7

Standard ANTC Mitigation Measures & Operating Procedures (From 30 March 2012 project Plan of Development)

- c. Stabilization and re-vegetation, if required, will be completed using the current methods recommended by the BLM at the expiration of the ROW grant.

11. Mitigation Measures

- a. As part of standard operating procedures, standard mitigation measures (Table 4) will be implemented throughout the project in order to reduce potential adverse environmental impacts. Most of the impacts are short term and generally occur during the construction period.

| Table 4 Standard Mitigation Measures |
|---|
| 1) All construction vehicle movement outside of the ROW will be restricted to pre-designated access, contractor acquired access, or public roads. |
| 2) The limits of construction activities will be predetermined, with activity restricted to and confined within those limits. No permanent paint or discoloring agent will be applied to indicate survey or construction activity limits. Environmentally sensitive areas if present will be flagged to alert all personnel of those areas to avoid during construction. |
| 3) In construction areas where re-contouring is not required, vegetation will be left in place wherever possible to avoid excessive root damage and allow for re-sprouting. |
| 4) Construction areas where ground disturbance is significant or where re-contouring is required, surface restoration will occur as directed by the BLM at the time. The method of restoration typically will consist of returning disturbed areas to their natural contour (to the extent practical). |
| 5) Prior to construction, all personnel will be instructed on the protection of cultural, paleontological, and ecological resources. To assist in this effort, the all construction contracts will address federal and state laws regarding antiquities, fossils, plants and wildlife, including removal, and collection, and importance of protecting them. |
| 6) If an initial intensive cultural resource inventory survey is conducted prior to construction, impact avoidance and mitigation measures, if required, will be developed in consultation with the BLM. |
| 7) Any cultural and/or paleontological resource discovered during construction by any person working on ANTC's behalf will immediately report the discovery to ANTC's authorized personnel, who will immediately report the finding to the authorized officer of the BLM. ANTC will suspend operations in the area until an evaluation is completed, to prevent the loss of cultural or scientific values. |
| 8) All construction and maintenance activities will be conducted in a manner that would minimize disturbance to vegetation, drainage channels and overland areas. In addition, dust-control measures will be utilized as necessary during construction in sensitive areas. All existing dirt access roads will be left in a condition equal to or better than their condition prior to construction activities. |
| 9) All requirements of those entities having jurisdiction over air quality matters will be adhered to and any necessary permits for construction activities would be obtained. Open burning of construction trash will not be allowed on BLM lands. |
| 10) Fences and gates, if damaged or destroyed by construction activities, will be repaired or replaced to their original pre-disturbed condition. |
| 11) During construction and operation of tower facility, the ROW will be maintained free of construction related non-biodegradable debris. |
| 12) Totally enclosed containment will be provided for all hazardous materials (if needed). All construction waste including trash, litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials will be removed to a disposal facility authorized to accept the waste. |
| 13) Construction holes without an avenue of escape will be covered overnight to prevent wildlife danger. |
| 14) ANTC or any party working on their behalf will clean off-road equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts prior to moving equipment onto public lands. |
| 15) No widening of existing dirt access roads will be undertaken in the area of construction and operation, except for repair necessary to make road(s) passable. |

| Table 4 (cont.) Standard Mitigation Measures |
|---|
| 16) There will be no blading of new access roads in the area of construction except as authorized. Existing crossings will be utilized at washes. The access route(s) will be flagged with an easily seen marker. |
| 17) Modified structure design may be utilized as necessary to minimize ground disturbance or operational conflicts. |
| 18) Existing roads or trails that will be blocked as a result of construction will be rerouted as directed by the authorizing officer. |

- b. Additional stipulations in Table 5 will be implemented throughout the construction and operation of the project and will be included as part of the standard operating procedures

| Table 5 Stipulations-Standard Operating Procedures |
|---|
| 1) ANTC will construct, operate and maintain the facilities, improvements, and structures within the ROW in strict conformity with the plan of development as it is approved and made part of the ROW grant. A copy of the complete ROW grant, including any stipulations and approved plan(s) of development, will be made available on the ROW area during construction. |
| 2) ANTC will submit a plan or plans of development that describe in detail the construction, operation, maintenance and termination of the ROW and its associated improvements and or/facilities. The degree and scope of these plans will vary depending on (1) the complexity of the ROW, (2) the anticipated conflicts that require mitigation, and (3) additional technical information required by the authorizing officer. An approved plan of development will be made a part of the ROW grant. |
| 3) ANTC will designate a representative(s) who will have the authority to act upon and implement instructions from the authorized officer within a reasonable time when construction or other surface-disturbing activities are underway. |
| 4) The design and location of all facilities shall be approved by the authorized officer prior to construction. |
| 5) The holder will protect all survey monuments found within the ROW. |
| 6) The holder of this ROW grant or the holder's successor in interest shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et. seq.) and the regulations of the Secretary of Interior issued pursuant hereto. |
| 7) ANTC will mark the exterior boundaries of the ROW with a distinctive color stake or lath. Holder will maintain all boundary stakes/markers in place until construction, final cleanup, and restoration are completed, to the best of its ability. |
| 8) The holder will conduct all activities associated with the construction, operation and termination of the ROW within the authorized limits of the ROW. |
| 9) All design; material; and construction operation, maintenance, and termination practices will be in accordance with safe and proven engineering practices. |
| 10) The holder will inform the authorized officer within 48 hours of any accident on federal lands that require reporting. |
| 11) During conditions of extreme fire danger, operations may be suspended or limited in certain areas. |
| 12) The holder may be held liable for damage or injury to the United States to the extent provided by 43 CFR. The holder may have liability pursuant to provision in 43 CFR to the United States resulting from fire or soil movement caused or substantially aggravated by any of the following within the ROW. *Activities of the holder including, but not limited to construction, operation, maintenance and termination of the facility. *Activities of other parties including, but not limited to: land clearing, earth-disturbing, moving, and blasting. |
| 13) Within 360 days of completion, the holder will submit to the authorized officer, as built drawings and any inspection reports certifying construction and testing in accordance with the design, plans and specifications. |
| 14) Construction site(s) will be maintained in a sanitary condition at all times. Waste material will be disposed of promptly at an appropriate waste disposal site. |
| 15) The lessee and others under their direction will clean off-road equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts prior to moving equipment onto public land under this lease. |

Cape Horn 2 Sage Grouse Lek Survey

Arizona Nevada Tower Corporation (ANTC)²⁶ proposes to construct a microwave telecommunications facility²⁷ near Hickison Summit on US Highway 50 in southeastern Lander County, Nevada. As part of studies to establish environmental baselines relative to the project, a survey of greater sage grouse (*Centrocercus urophasianus*) activity on the Cape Horn 2 lek was conducted 1 May 2013.

Hickison Summit is located near milepost 50 on US Highway 50, about twenty five miles (40 kilometers) southeast of Austin. The proposed telecommunications facility would be placed about one mile (1.6 km) east of the Highway in the northern terminus of the Toquima Range. The locality in which ANTC's facility would be established is considered 'essential/irreplaceable' sage grouse habitat by the Nevada Department of Wildlife (NDOW 2013). As a result, the Battle Mountain Office, Bureau of Land Management required that a survey of sage grouse activity on the nearest active sage grouse lek (courting ground) be conducted as part of the Environmental Assessment prepared for this project.

The Cape Horn 2 lek is located approximately 2.25 miles (3.6 km) southwest of the proposed tower site (Photo 1). On 30 April 2013 the author visited the lek site and observed numerous deposits of sage grouse scat thereon. Some deposits were yet reasonably pliable, evidencing recent activity on the lek. On 1 May 2013 a sage grouse activity survey of Cape Horn 2 was conducted in accordance with NDOW survey protocols. Four separate counts were made between 0525 and 0610 hours. No sage grouse were observed during any count.

NDOW lek count data collection forms completed during the survey are attached.

²⁶ 6220 McLeod Drive, Ste. 100, Las Vegas, Nevada 89120

²⁷ BLM Application N-91093, filed 5 April 2012



Photo 1. View of proposed ANTC Hickison Summit telecommunications site, Lander County, Nevada, from Cape Horn 2 greater sage grouse lek. (Note: Photo taken with approximately 60mm lens to simulate the human eye view.)

Literature Cited

NDOW. 2013. 19 March 2013 letter, Timothy Herrick (NDOW) to A.L. Heindl (Desert WalkAbouts, Inc.) re: Hickison Summit Telecom Project. NV Dept. Wildlife, Reno.



NEVADA DEPARTMENT OF WILDLIFE
LEK COUNT DATA COLLECTION FORM



LEK ATTRIBUTES

LEK ID: _____ LEK NAME: CAPE HORN 2
LEK COMPLEX: _____ TREND LEK: _____
PMU NAME: _____ PLANNING UNIT: _____

NDOW REGION: _____ UNIT: _____ BLM DISTRICT: BTL MTN
COUNTY: LEWIS RANGE/VALLEY: SIMPSON PARR (SOUTH END) LEK STATUS: ACTIVE

GPS COORD (NAD83) EASTING: 4364966 NORTHING: 520034 NEW/UPDATED:

SURVEY ATTRIBUTES

OBSERVER NAME(S): A.L. HEINDL SURVEY METHOD: GROUND/BUDGCS
TIME OF ARRIVAL: 0500 SUNRISE: 0551 (PREDICTED)
DATE OF SURVEY: 1 MAY 13 TIME OF SURVEY: 0525

WEATHER CONDITIONS: CLEAR - GROUND DRY

TEMPERATURE: 58F
WIND SPEED: 3-5 DIRECTION: N

OTHER ANIMALS AT LEK: NONE OBSERVED

LEK COUNT DATA

| | COUNT 1 | COUNT 2 | COUNT 3 | COUNT 4 |
|----------|----------|---------|---------|---------|
| MALES: | <u>0</u> | _____ | _____ | _____ |
| FEMALES: | <u>0</u> | _____ | _____ | _____ |
| UNKNOWN: | _____ | _____ | _____ | _____ |

HIGH COUNT MALES: _____ FEMALES: _____ UNKNOWN: _____

REMARKS: FRESH SCAT NOTED ON LEK DURING 30 APRIL RECON.

Form Revised: March 4, 2008



NEVADA DEPARTMENT OF WILDLIFE
LEK COUNT DATA COLLECTION FORM



LEK ATTRIBUTES

LEK ID: _____ LEK NAME: CAPE HORN 2
 LEK COMPLEX: _____ TREND LEK: _____
 PMU NAME: _____ PLANNING UNIT: _____

NDOW REGION: _____ UNIT: _____ BLM DISTRICT: BLM MTA
 COUNTY: LAUNDER RANGE/VALLEY: SILHOUETTE (SOUTH EAST) LEK STATUS: ACTIVE

GPS COORD (NAD83) EASTING: 4364966 NORTHING: 520034 NEW/UPDATED:

SURVEY ATTRIBUTES

OBSERVER NAME(S): A.L. HEINTZ SURVEY METHOD: GROUPS/BINDCS
 TIME OF ARRIVAL: 0500 SUNRISE: 0558 (ACTUAL)
 DATE OF SURVEY: 1 MAY 13 TIME OF SURVEY: 0540

WEATHER CONDITIONS: CLEAR - GROUPS DRY

TEMPERATURE: 59
 WIND SPEED: 3-5 DIRECTION: N

OTHER ANIMALS AT LEK: 5 PRONGHORNS 1 MILE WEST

LEK COUNT DATA

| | COUNT 1 | COUNT 2 | COUNT 3 | COUNT 4 |
|----------|---------|----------|---------|---------|
| MALES: | _____ | <u>0</u> | _____ | _____ |
| FEMALES: | _____ | <u>0</u> | _____ | _____ |
| UNKNOWN: | _____ | _____ | _____ | _____ |

HIGH COUNT MALES: _____ FEMALES: _____ UNKNOWN: _____

REMARKS: FRESH SCAT NOTED ON LEK DURING 30 APRIL RECON.

Form Revised: March 4, 2009



NEVADA DEPARTMENT OF WILDLIFE
LEK COUNT DATA COLLECTION FORM



LEK ATTRIBUTES

LEK ID: _____ LEK NAME: CATZ HORO 2
LEK COMPLEX: _____ TREND LEK: _____
PMU NAME: _____ PLANNING UNIT: _____

NDOW REGION: _____ UNIT: _____ BLM DISTRICT: BLM MTD
COUNTY: CLAYTON RANGE/VALLEY: SIMTSOOK PLATEAU (SOUTH END) LEK STATUS: ACTIVE

GPS COORD (NAD83) EASTING: 4364966 NORTHING: 520034 NEW/UPDATED:

SURVEY ATTRIBUTES

OBSERVER NAME(S): A.L. HEINDL SURVEY METHOD: GROUND/BLOODS (ACTUAL)
TIME OF ARRIVAL: 0500 SUNRISE: 0558
DATE OF SURVEY: 1 MAY 13 TIME OF SURVEY: 0555

WEATHER CONDITIONS: CLEAR - GROUND DRY

TEMPERATURE: 59
WIND SPEED: 3-5 DIRECTION: N

OTHER ANIMALS AT LEK: 5 PRONGHORNS 1 MILE WEST

LEK COUNT DATA

| | COUNT 1 | COUNT 2 | COUNT 3 | COUNT 4 |
|----------|---------|---------|----------|---------|
| MALES: | _____ | _____ | <u>0</u> | _____ |
| FEMALES: | _____ | _____ | <u>0</u> | _____ |
| UNKNOWN: | _____ | _____ | _____ | _____ |

HIGH COUNT MALES: _____ FEMALES: _____ UNKNOWN: _____

REMARKS: FRESH SCAT NOTED ON LEK DURING 30 APRIL RECON.

Form Revised: March 4, 2008



NEVADA DEPARTMENT OF WILDLIFE
LEK COUNT DATA COLLECTION FORM



LEK ATTRIBUTES

LEK ID: _____ LEK NAME: Cape Horn 2
 LEK COMPLEX: _____ TREND LEK: _____
 PMU NAME: _____ PLANNING UNIT: _____

NDOW REGION: _____ UNIT: _____ BLM DISTRICT: BTL. MTD
 COUNTY: LARIMER RANGE/VALLEY: SIMPSON PLATEAU LEK STATUS: ACTIVE
 (SOUTH EAST)

GPS COORD (NAD83) EASTING: 4364966 NORTHING: 520034 NEW/UPDATED:

SURVEY ATTRIBUTES

OBSERVER NAME(S): A. L. HEINOLD SURVEY METHOD: GROUND/BINDOCS
 TIME OF ARRIVAL: 0500 SUNRISE: 0558 (ACTUAL)
 DATE OF SURVEY: 1 MAY 13 TIME OF SURVEY: 0610

WEATHER CONDITIONS: CLEAR - GROUND DRY

TEMPERATURE: 60
 WIND SPEED: 3-5 DIRECTION: N

OTHER ANIMALS AT LEK: NONE OBSERVED

LEK COUNT DATA

| | COUNT 1 | COUNT 2 | COUNT 3 | COUNT 4 |
|----------|---------|---------|---------|----------|
| MALES: | _____ | _____ | _____ | <u>0</u> |
| FEMALES: | _____ | _____ | _____ | <u>0</u> |
| UNKNOWN: | _____ | _____ | _____ | _____ |

HIGH COUNT MALES: _____ FEMALES: _____ UNKNOWN: _____

REMARKS: FRESH SCAT NOTED ON LEK DURING 30 APRIL RECON.

Form Revised: March 4, 2009